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CLINICAL LECTURE

ON THE SURGICAL TREATMENT OF FIBRO-MYOMA OF THE UTERUS.

*Delivered at the Samaritan Hospital, Jan. 24, 1883.*

By J. KNOWSLEY THORNTON, M.B., C.M.,  
Surgeon to the Hospital.

THE case upon which I am going to operate to-day is, in many respects, typical of the kind of fibroid or fibro-myoma of the uterus which requires surgical treatment. I therefore take the opportunity of making some remarks upon the nature of the operations which we may perform. In all these cases the first point for decision is—Does this enlargement of the uterus so endanger the life of the patient, or so completely render her unfit for her ordinary avocations, that we are justified in performing an operation, attended with more or less risk to her life, for its cure? In the case I bring before you to-day I am convinced that some operation is necessary and justifiable. The patient is a poor woman (a domestic servant), and is quite unable to follow her calling. She is single, and forty-five years of age; has never had any serious illness before. Menstruation came on late in life, and was perfectly regular till her thirty-ninth year, when it suddenly became excessive, and has continued so ever since, with the exception of two months, when she was at death's door from constant flooding, and it ceased altogether. She has now been an inmate of a provincial hospital for some months, and the perfect rest and regular diet have much improved her condition, but not sufficiently to enable her to return to work; and for eight or nine days in each month she is obliged to be laid up entirely. Her menstruation began late, and she may still have five years or more to wait for any chance of natural cure by the menopause. The abdomen is distended by a round, soft, elastic, and non-fluctuant tumour, which is found on vaginal examination to involve the whole uterus, almost obliterating its cervical portion. Clearly it is a case calling for aid, if such be possible. The only thing in her condition to which I specially direct your attention is that with perfect rest and regular diet she has much improved in general health, though the hæmorrhages continue severe. Now, if she were a lady in easy circumstances, I think this would, or should, have much weight in deciding against operative interference. The tumour is only growing slowly, and there are but five or six years to run before the menopause. If, with care, life can be passed in tolerable comfort up to that time, I do not think we are justified in recommending any operation which may cut it suddenly short. But our patient must work or starve; and if she works, her disease is very likely to kill her, and will certainly soon again render her unfit for work.

Having, then, decided that operation is justifiable, the next question is—What operation shall we perform? In these cases we can choose between an operation which brings on an artificial menopause, and so gradually removes the tumour—I refer to the removal of the uterine appendages—or we can remove the whole of the supra-vaginal portion of the uterus, together with the ovaries and fallopian tubes. There are, of course, cases of pediculate outgrowth (fibro-myoma) which can be treated by simple removal of the growth, without interfering either with the uterus or its appendages, but these cases are comparatively rare, and are much less dangerous than the two kinds of operation that we are now considering. They are, moreover, nearly always mere operations of expediency, and we will not stop to discuss them now.

I have already said that in cases like the one now before us we can select one of two operations. I must, however, qualify this statement to some extent, because we may in any case open the abdomen intending merely to remove the uterine appendages, and may after all be induced to perform complete supra-vaginal hysterectomy; or we may even be compelled to perform the latter operation by some accident occurring in the performance of the former. So also we may decide beforehand to perform hysterectomy, and when

the abdomen is opened may decide merely to remove the uterine appendages. In commencing an operation for the cure of uterine tumour the surgeon should, therefore, be fully prepared for either operation. The patient should also be told beforehand that though it is the intention of the surgeon to perform one or other of the two operations, it cannot be a matter of absolute certainty until the abdomen is opened, so that she must leave something to the judgment of the operator.

Keeping in mind this uncertainty, we still, of course, in every case endeavour to decide beforehand which operation will be the safest and the best for the patient. In our present case it is my intention to remove the uterine appendages, and I select this operation for the following reasons:—

1. It is a soft vascular enlargement of the whole or nearly the whole uterine wall; and experience has shown me that these are the cases which give the most rapidly satisfactory results after this operation.

2. It involves the cervical portion of the uterus so deeply that the vaginal portion is almost obliterated; and such cases are not at all favourable for complete hysterectomy, because the stump is too thick and large, and is very difficult to bring up into the abdominal incision.

It is worthy of note that this patient is stout rather than thin, and has a good deal of colour. Both these conditions are common with uterine fibro-myoma. If a patient comes to me with an abdominal tumour, and is stout and of full colour, especially this general colouring of face, I usually suspect uterine disease, rather than ovarian. Patients are often fat, even when perfectly blanched with prolonged hæmorrhage, and it is surprising how quickly they regain this colouring of the face when the period is over, even though their mucous membranes and half-filled arteries distinctly tell the history of severe hæmorrhage.

Another point of interest is that she herself had never noticed the abdominal enlargement till it was pointed out to her by her medical attendant, nine months back, though it was then reaching nearly to the navel. I have seen a patient with an enormous solid tumour filling the whole abdomen, and pressing up the tip of the ensiform cartilage, happily unconscious of its presence, and merely thinking herself a little large owing to her time of life.

It is now a fortnight since the last menstruation, and the patient tells me that she is always at her best about this time; partly on this account I select this time for operation, but also because I have found by experience that the old plan of operating soon after the period is over is a mistake. In the operations for removal of the uterine appendages a more or less free metrostaxis comes on within twenty-four to seventy-two hours; if the proper time for this is near it comes better and with less constitutional disturbance. The same, of course, applies to many cases of ovariectomy, but the metrostaxis is not after this latter operation so common, though it is sufficiently so to make this period of operation a matter worthy of consideration. I now proceed to incise the abdominal parietes to an extent of four inches, beginning a little below the navel, and carrying the knife boldly through the skin and subcutaneous fat down to the muscular layer. The hæmorrhage from small vessels is free, requiring many pairs of compression forceps to be applied before the incision is carried through the deeper structures, and, as you see, it continues free from small vessels in the deeper structures. This free hæmorrhage in cutting through the parietes is in itself a strong evidence that the case is one of uterine tumour; the only other conditions in which it is met with are those in which the parietes have been long and closely adherent to an ovarian tumour, or in which the peritoneum is thickened by malignant disease. I now open the peritoneum to the extent of my external incision, and find it necessary to prolong the incision upwards to an inch above and to the left of the navel, making it fully six inches. It is important in prolonging the incision above the navel to cut to its left side; on the right the ligament of the liver may very likely be wounded, and with it, in some cases, a large vessel (the remains of the umbilical vein). We now see that the tumour is very vascular, and that it is a symmetrical enlargement of the whole uterus. Passing my hand into the pelvis, I find the broad base, which I had made out by vaginal examination, and this renders it a very unfavourable case for hysterectomy. Now you see on this left side a small ovary, with normal fallopian tube, but an enormous enlargement of the ovarian vessels and paupiniform



plexus. I transfix with No. 3 Chinese twist, so as to include all these vessels in my two loops, and, taking care that the loops interlock, I tie first the inner one, which contains most of the arteries, and then the outer one, which holds this pampiniform plexus. I do not at present remove the ovary and tube, but push them back into the peritoneum with a pair of forceps on, while I deal with this right side. My reason for this is that the strain on the ligatures is very great in these cases while one is twisting round the large uterus and drawing up the other ovary and tube, and the risk of slipping of the ligature, and consequent hæmorrhage, proportionately great: hence I leave the cutting away of the ovaries and tubes till both are secured, and the peritoneum sponged out behind the uterus; then, when the stumps are dropped, they are left at rest. The importance of this is well seen in this case, for you see how difficult it is to drag this right ovary and tube into view, and how much strain there must be upon the other ligament, shortened as it is by my transfixing ligatures. This right ovary is rather larger than the left, but both it and its tube appear healthy; the vessels are even larger on this side than on the other. Now I have transfixed a little too near the uterus, and the needle has pricked a large vein or sinus, and see what a large and continuous spurt of blood comes from it; the tying of the interlocking ligatures does not fully check it, so I pass a separate one on to the pedicle a little behind the puncture; this stops the hæmorrhage, and the ovary and tube are cut away. The left ovary and tube are now carefully drawn into view again, and after cutting them away I apply a separate ligature round the whole stump over the transfixing ligatures. This I do in every case, both in this operation and in ovariectomy. I now pass a small soft sponge carefully down into the pouch of Douglas with this pair of smooth, straight uterine polypus forceps. I much prefer these to any form of sponge-holder, as they are much smoother, and therefore more certain to be clean. Everything is quite dry, and I therefore arrange the flat sponge over the intestines and introduce the sutures. I use for this purpose No. 1 Chinese twist simply soaked in one-to-twenty watery solution of carbolic acid; oil or wax only makes it irritate and cause suppuration. You see that I begin with a silk threaded with two needles, and pass them from the inside, taking up merely the edge of the peritoneum, going a little deeper into the fascia and subcutaneous tissues, and bringing the needle out about a quarter of an inch from the skin edge. I take great care to include all the tissues of the abdominal wall, but avoid the muscle, taking up both layers of the sheath on the side on which it is divided. I avoid the muscle because if it is included it adds much to the suffering of the patient, and interferes with the healing from its constant spasmodic twitching. I attach much importance to the method of closing the incision, and am careful not to pull the sutures too tight or they will cut. In an abdominal wall of this thickness the loop of the suture, when removed at the end of eight or nine days, should measure a full inch and a half from the knot; then, with careful strapping for some weeks until the cicatrix is firm, there need be no fear of that far too common accident after abdominal section—ventral hernia. The sutures being all introduced, the flat sponge is pressed back, and a small soft sponge again carefully introduced with the forceps into the pouch of Douglas and the anterior *cul-de-sac*. Both are found dry, and the flat sponge is removed and the sutures tied; after they are cut short a flat sponge is placed over the incision while the apron is removed, so that no particle from it or its plaster should drop on to the wound, which is then dressed with carbolic gauze. A small pad of six or eight layers is first applied, just to overlap the ends and sides of the incision, the surface of it, which goes next to the wound, being wetted with the lotion in the instrument-tray. This pad is soon soaked with the blood and serum from the wound, and thus, deprived of much of its dressing, it becomes an efficient protective to the wound from the stronger carbolic acid in the dry layers of gauze which are afterwards applied; in all, the wound is covered with about twenty-four layers of gauze. You see that I now use a very small dressing, which only overlaps the wound about two inches and a half on all sides. This plan I have adopted from a consideration of the narrow space over which, from the lower angle of the wound to the pubes, it is possible to apply an antiseptic dressing; this space is also the most dependent, and it is there, if any-

where, that discharge is likely to run down; there is, then, no object in having wider margins of antiseptic dressing round other parts of the wound, and there is the disadvantage that a larger dressing prevents the full grip of the plaster and deprives the wound of much support, especially when there are straining and sickness. Between the two outer layers of the dressing there is a piece of pink mackintosh slightly smaller than the gauze, and the dressing is now fixed in place with straps of adhesive plaster, each about three inches wide, and applied so as to overlap about half an inch, while they are long enough to get a firm grip of the loins. Outside the plaster and over the wound is now placed this folded towel, which comes a little below the lower margin of the plaster, so that if a little blood or serum runs down during the first few hours it is quickly dried up; the towel also serves as a firm pad, over which this flannel bandage, lined with calico, is firmly pinned with three safety-pins. The patient is now placed in bed with the head and shoulders well supported by an inclined plan of pillows, the knees being raised and a pillow placed under them. She is kept in this position for at least ten days, and usually till she gets up at the end of a fortnight. The dressing I have now applied will not be removed till the eighth or ninth day, by which time I can confidently predict complete union of the wound without redness or irritation, and of course without suppuration. I have not seen a suppurating wound in my own practice after abdominal section for several years. The sutures will all be removed at this first dressing without the spray, the wound being moistened as I remove the old dressing, with some warm one-to-forty carbolic lotion. A still smaller gauze dressing than the one I have now applied will then be used, so that the straps come almost to the edges of the incision. In a few more days this gauze is removed, the straps are firmly applied right across the dry linear wound, and the patient is dismissed from the nineteenth to the twenty-first day after operation, with orders to change the strapping every week or ten days for the first two months, so that the cicatrix is quite strong before it is left merely to the support of the elastic abdominal belt, which is worn for some years after the operation, or permanently if the incision has been a very long one. The patient's pulse and vaginal temperature are noted directly she is placed in bed, and the latter is recorded by the nurse every two hours for the next few days. Twenty drops of laudanum in an ounce of water are injected into the rectum directly the patient has sufficiently recovered from the anæsthetic to be conscious of pain, and this injection is repeated once or twice during the first few hours, and then every six or eight hours for the first three or four days, or until all pain has entirely gone, and the flatus passes freely without the use of the tube. Nothing but a little ice, warm water sipped, or plain soda-water is given for the first twelve or twenty-four hours by the mouth, or for a longer period if there is any sickness or difficulty in getting the flatus to pass down; injections of two or three ounces of strong beef-tea made without salt, and with or without half an ounce of port wine, being given every two or three hours if required by the condition of the patient. Should the state of the kidneys or other organs indicate any medicinal treatment, the medicine is given in these enemata, and never by the mouth. Milk and soda-water, small quantities of bread-and-milk, or Brand's essence with bread, or clear beef-tea, are given after all chance of sickness is over, every two or three hours by the mouth, and then about the third day a little tea and toast morning and evening, with boiled sole for dinner, are added to the diet.

With regard to this special operation which I have just completed, I much regret the puncture of the vessel or sinus on the right side of the uterus, and though the ligature has checked the hæmorrhage for the time, I much fear that it may recur when the tissues relax from the shrinking of the tumour, or later when they are strained upon by the congestion of the organs which precedes the metrostaxis. In a similar case some years ago, a like accident, and a complete failure to stop the hæmorrhage which followed, compelled me to go on and perform complete hysterectomy, and fortunately the patient made a good recovery. More recently, at the close of last year, I was compelled, through severe hæmorrhage from a tear in uterine tissue, to perform complete hysterectomy, when I had hoped that the milder operation would be possible. It was a most unfavourable case for either operation, the ovaries and tubes



being much diseased and universally adherent, and a large mass of fibroid so situated in the cellular tissue behind the cervix that I was obliged to leave it, even when I amputated the uterus at the level of the internal os. It was impossible to bring the stump well into the incision, and I attempted, by sewing the peritoneum round it, to make a sort of half intra- and half extra-peritoneal operation of it. The patient, however, died of septicæmia in a few days.

This is the eleventh case in which I have removed the appendages for the cure of fibro-myoma. All the patients have made good recoveries from the operation. In all but two the disappearance of the tumour has been rapid, and in these two a very marked diminution in the size has occurred: but in one the hæmorrhage has recurred; it is, however, only a few months since I operated, and I have little doubt that before the year is over this one also will be among the perfectly successful cases. I would recommend anyone who performs this operation to tell the patient that she must not expect too rapid a cure, but must remember that, in the natural order of things, the menopause is much slower and more difficult in some women than in others, and that this is equally, or perhaps more likely to be, the case when we bring it about in a sudden manner by operation.

March, 1883.—The patient, whose case was made the text for the above lecture, had internal hæmorrhage which recurred from time to time, and she was very ill for some weeks after the operation, but went home on the thirty-third day quite well; the tumour soft and boggy, quite gone from the pelvis, and less than a third its former size in the abdomen.

## MEMORANDA CONCERNING CHOLERA.

*Delivered before the Epidemiological Society on July 4, as an Introduction to a Paper on the "Sanitary Lessons of Indian Epidemics."*

By Dr. GEORGE BUCHANAN, F.R.S.,

President of the Society; Medical Officer to H.M. Local Government Board

I. *Narrative.*—Cholera reached Europe by way of Egypt for the first time in 1865. Before that date, its course from Asia had been through the Russian Empire.

At the first appearance of cholera in Europe, over forty years ago, it began in Great Britain fifteen months after its introduction to Europe. At its second appearance, it began with us in England after about the same interval. Its third appearance does not admit of comparison with the others.

At the fourth appearance of cholera in Europe, when it came by way of Egypt, it was epidemic in the Hedjaz in May; it appeared at Alexandria on June 2; was at Malta, Smyrna, and Constantinople before the end of that month; and appeared in Spain and Italy and at Marseilles during July. Spreading somewhat widely in Europe during the next two months, it was at Southampton on September 17, and on November 3 it was witnessed at New York. In the spring of 1866, cholera acquired an increased diffusiveness; and by June had attacked many places in the United Kingdom, but hardly any cases occurred in London until July.

[The Suez Canal was opened in November, 1869.]

Extension of cholera from Northern Arabia was next threatened in 1871; and the disease prevailed to a small extent in Europe during 1872 and 1873. Since that date, it has occurred several times among the pilgrims to the Holy places, but has not established itself in Egypt, nor has it prevailed in Europe.

Cholera is now at Damietta, a place with some 30,000 inhabitants, about six miles from the mouth of one of the branches of the Nile. The way of its arrival thither cannot be stated. Damietta is not on any high road from Asia; and the towns above Damietta, on the Nile, are not known to have been affected before this town. No cholera is known of at Suez, nor in the course of the Canal, though from Port Said an occasional death is now being reported. In the ten days ending last Saturday, about 500 deaths from cholera occurred at Damietta; on July 1 there were 140, on the 2nd 130, and on the 3rd there were 110 deaths. The disease now exists at Mansourah, higher up the same branch of the Nile, and cases are appearing in other towns situated on the railways of the Delta.

II. *Expectations.*—When—I have been asked—may cholera be expected to travel through Europe to England? how long after its present manifestations in Egypt?

Evidently no medical data exist for an answer to the question. We do not understand all the conditions for the diffusion of the disease.

But we in England do firmly believe, what many of our Indian friends would deny, that cholera is influenced in its spread by human intercourse. We do not affirm that it passes from person to person, as small-pox or typhus does; but we believe that it extends, much after the fashion with which we are familiar in the case of enteric fever, by means of the discharges from the sick, particularly if those discharges are received into foul cesspools and drains, or if they obtain admission into drinking-water; and human intercourse is one of the conditions for the spread of cholera in such fashion as this.

If we now, for the sake of hypothesis, suppose other conditions for diffusion of cholera to be to-day what they were in 1865, we may inquire how far the conditions of human intercourse have altered in such wise as to affect the probable dissemination and rate of transmission of cholera in and about Europe. In reply, let it be remembered that, though Egypt has doubtless incurred repeated risk from her communications with the Hedjaz, there is no evidence that even Egypt has been subjected to danger from cholera, at any time, through her direct maritime communications with more Eastern countries; let it be remembered that the Suez Canal has now been open for more than thirteen years; and let it further be noted that the present outbreak of cholera in Egypt is not on the line of traffic between Asia and Europe; and it will appear improbable, I think, that the use of the new highway will affect the course of cholera towards France and England. Still, it is not to be supposed that 1883 will find us in every respect under the same conditions of human intercourse as 1865; and it is possible that some of the changed conditions may be such as to affect the opportunities for the migration of cholera. But, plainly, they are not worth speculating about, in view of our complete uncertainty whether those conditions for the diffusion of cholera which are independent of human intercourse are or are not to be the same in 1883 as in 1865.

III. *Precautions.*—"Quarantine," meaning by the word a system which professes to prevent the entry into a country of persons coming from another country until assurance is attained that no infection can be introduced by those persons, is not now regarded as capable of fulfilling its pretensions: and its least failure to exclude infection is seen to make the whole system irrational; its cost and its vexations unjustifiable. Accordingly, England, which long ago abandoned the system as of any avail against cholera, has now the consent of most European nations (as expressed by their delegates to the Vienna Conference of 1874) in preferring for the defence of her ports another system which, under the name of "Medical Inspection," aims at obtaining the seclusion of actually infected persons, and the disinfection of ships and of articles that may have received infection from the sick.

The details of this system, as formulated for practical application in the ports and waters of England, are set forth in an Order of the Local Government Board of July 17, 1873. Provision is there made for the detention of ships at appointed places; for the visiting and medical examination of ships and passengers; for the removal to hospital of persons suffering from cholera or suspected cholera, and for their detention there; for the speedy burial of the dead; for the disinfection or destruction of clothing and bedding; and for the purification of the ship and of articles therein.

This Order is at present operative. From a statement by Earl Granville, I learn that it is proposed to re-issue the Order, though without change in essentials. It represents the system upon which we rely, in preference to quarantine, for the protection of our shores. For the last ten years the country has been thus prepared for the invasion of cholera, and the fact of this preparedness should be known.

We have reason to hope that, if cholera should enter England, it will find fewer opportunities for doing mischief than at previous invasions. We are generally better provided with defences against a disease which spreads as cholera can spread. Some further precautions for use at the moment will doubtless be requisite; but it will be on our permanent sanitary works and procedure that we shall with most confidence rely.



AN ADDRESS  
ON  
THE HYGIENE OF ARMIES IN THE FIELD.

*Delivered at the Parkes Museum, June 21, 1883.(a)*

By ROBERT RAWLINSON, C.B.,

Chief Engineering Inspector to the Local Government Board.

THIS subject is so vast, special, and complicated, that I can only promise to touch the fringe of it, and this in a round-about way. I will not presume to lay down hard and fast rules by which armies in the field shall be regulated in sanitary matters in the future, but rather describe, in narrative form, some of my own experience, gained during the time I acted as the engineer member of a Sanitary Commission sent out to the army in the Crimea in the spring of 1855.

After reading the instructions issued to this Commission, Mr. Rawlinson said: If General Orders could in all cases have been made applicable, and could have been obeyed, outside comment might cease, and the aid of a specially appointed Sanitary Commission during the Crimean War might not have been needed. It may, however, from experience, be assumed that there never will be General Orders framed sufficient to cover all contingencies; and we may also assume that there will be neglect now and then, from various causes. Some of the links in the chain of regulations will break, and confusion will follow. The General Orders for the army under the command of the Duke of Wellington in the Peninsula, in the Low Countries, and in France, 1809 to 1815, cannot probably be improved upon. Lord Raglan was secretary to the Duke, and he must consequently have been acquainted with the Duke's General Orders; and yet we see the utter confusion into which affairs drifted in the Crimea. The siege of Sebastopol became, however, exceptional.

To whom the failure in the Crimea was due, it is impossible now to say. It was not, however, to any individual, but rather to the absence of an independent sanitary department with the army, and to the want of one home department to direct and control, having also power to order all stores, and to inspect their shipment, and to see that the several stores were so arranged in the transports that they should be available in the order of their necessity, and not to have surgical appliances and medicines placed beneath a massive bulk of ammunition. Blunders of this class do not appear to have been avoided even in the recent Egyptian campaign. The Royal Commission, which, under the Presidency of Lord Herbert of Lea, inquired into the sanitary state of the army after the Crimean War, resulted in Lord Herbert's regulations. One of these regulations provided that a sanitary officer should be attached to the quartermaster-general's staff. To this officer was to be committed the duty of examining into the sanitary condition of buildings selected for occupation by troops, and into the sanitary condition of towns or villages about to be occupied; he was also to make recommendations for organising a proper sanitary police, to preserve cleanliness, and for the removal of nuisances. But it will be seen that practical lessons, however well taught, and also that subsequent official inquiries, however ably conducted, have led up to very little that has proved to be really useful when the country again enters upon war. The army medical arrangements had drifted back into the old groove, the old forms of blunders and the old stories are repeated—namely, that the existing regulations are supposed to be, if not perfection, all that is requisite. In Government departments, I am sorry to say that there is not, on all occasions, due respect shown to the feelings of permanent officials; and, in our case, we were not put into communication with the heads of the permanent Medical Department before leaving London, which, no doubt, gave offence, but for which the members of the Commission were in no sort of way answerable.

When the Sanitary Commission arrived at the seat of their labours, they found the buildings used as hospitals in an unsanitary condition; the sewers of the great hospital were foul, and required frequent and thorough flushing, and

their lower ends were covered to prevent the wind blowing up them into the building; the carcasses of a certain number of animals which lay in the neighbourhood of the hospital were removed and buried, and many handcart-loads of filth were also removed. The work of scavenging was carried on systematically until the hospital ceased to be needed, owing to the departure of the troops.

Mr. Rawlinson then continued as follows:—The Blue-book Report (1883) on the organisation of the Army Hospital Corps in Egypt reveals many blunders of a type as old as the service, such as confusion in transmitting materials for use; and something worse than confusion in contract supplies, both of materials and of provisions. Can there be no better service in future? War is a blundering, extravagant, and destructive business under any aspect; and the best-framed regulations come to be disregarded, and even where adhered to, they may at times be the worst possible extravagance. The Egyptian Report (1883) most fully sets forth the confusion into which the regulations fell, and the suffering which resulted. Detachments of the army had, however, to be removed suddenly, and the *impedimenta* necessary for use could not follow as rapidly. Then provision was made for contingencies which never happened, and, most fortunately for the men, the war came to an abrupt and unexpected termination.

Men in war are loaded like beasts of burthen. They have to march under their *impedimenta*; the whole body may be bathed in perspiration; feeding must be irregular, and water may be absent or may be polluted, and in one night's bivouac the body may be chilled, so that fever to a large proportion of the men must be the result; and that there must necessarily be great loss of human life in actual war will be self-evident to anyone who knows the least possible about the subject. No forethought can fully guard against excessive changes in weather. The fighting portion of a soldier's life is of short duration. It is not in battle that armies are destroyed, but on the field, in camp, and in hospital.

Any buildings to be used by sick, or by broken-down and wounded men may, as taught by Sir John Pringle, have the windows removed to prevent injury by polluted air, and any improved apparatus provided for water-supply be brought into use. Food in a concentrated and portable form may also be served out, and the horrible salt junk and ration-pork be in future dispensed with. A spirit-ration is liable to be most injurious in several ways, and should not be used except as a medicine.

For water-supply, light carts of steel, similar in form to watering-carts in towns, may be of great utility, as one horse or one mule would easily draw to a distance of one or two miles from 100 to 200 gallons of water, to be served out to the men in the positions occupied. Portable water-filters can also be easily arranged, to be similar in form to the light steel water-carts; so that water for hospital purposes may be filtered even in its transmission.

Where an army for a time becomes stationary, a sanitary corps will find ample work to do in improving roads, in surface-draining, in scavenging, and in ventilating any permanent buildings used as hospitals; and if the service will permit of a use of working parties, enormous benefits may be secured to the entire force in the field. A skilled sanitary officer will be a man of many expedients springing from close and intelligent observations; and in his works he will strive to save labour. Every country has its character impressed on its surface contours, and these the geologist and engineer will read at a glance. Wide and flat areas will indicate, as a rule, a soft subsoil; a steep gradient will indicate a subsoil of some hard material, such as gravel; rock will generally show above the surface; where there are mountains, there will usually be at the base mounds of material, particles weathered from the rock and admirably suited for road-forming, as it may be excavated and sorted so as to save the labour of quarrying and breaking for road-making. In future wars it is admitted that picks and spades may require to be used as much, if not even more, than rifles. All officers will, therefore, have to learn something of engineering. If soldiers can use pick and spade to provide earthwork shelter from rifle-bullets, they may also use these implements for sanitary purposes. A working army will be more contented if they find that their labour tends to their safety and comfort. Idleness is an incentive to vice, and leads to insubordination. A modern army will

(a) The Address has been somewhat condensed.



be a very different body of men to those forming the Peninsular army under Wellington, and must be treated very differently. Flogging is for ever done with, and it is most disgraceful to have any attempt at its renewal.

The General Orders of the Duke of Wellington are considered good examples; but the Duke in the Peninsula ever did something more than unceasingly refer to even his own General Orders. His personal observation was incessant, his perception rapid; and consequently his instructions, outside any order-book, were practical, being suited to the conditions and requirements of place and time. The suggestions of the Great Duke point to something to be done by commanders of regiments outside of cut-and-dried formal regulations.

I think it may be gathered from my remarks, that I do not set myself up as a practical teacher of army hygiene in the field. The purport of this paper is rather to show that, to preserve an army in health, either in barracks or in the field, will, as in the past, so in the future, require active intervention on the part of the commander-in-chief, of the generals, and of the colonels and officers, outside any printed regulations, however full and ample. As the Duke of Wellington explained on one occasion to the House of Lords, that martial law was no law other than the will of the commander-in-chief; so, in future, the commander-in-chief, during a state of war, must have the power to relax any published general order or regulation if necessary, to make better provisions for the army. A sanitary staff, as provided for by the late Lord Herbert, distinct and separate from both Commissariat and Army Medical Departments, should be with and part of the army, under the direct control of the commander-in-chief, who shall have power to order and expend in this service as he may think necessary, that is, that any amount of extraneous labour may be provided and paid for which he deems necessary, and the country in which he can supply.

The army in the Crimea was saved in a great measure by voluntary efforts from home, by relations, and the general public shipping out warm clothing, by Florence Nightingale and her lady nursing, by distribution of food suited to sick men in hospital, and by extra voluntary furnishing of medical comforts, and also by the labours of the Army Sanitary Commission. The expenditures by all these parties were, however, mere fractions in the gross cost of the war; if these entire extras had been provided for, it would only have amounted to about half a week's expenditure of the cost of the war.

In touching on this question of army hygiene, even at this day, I know that I am venturing on disputed ground. But that enormous improvement took place in the British army in the Crimea from some cause or causes, after the advent of the Sanitary Commission, cannot be disputed; but, officially, the credit has never been accorded to that Commission. The one great fact was, however, made unmistakable, namely, that from the spring of 1855 the health and condition of the British army began to improve, until, by the autumn of that year, the entire force in the field was in a state of health, and was under a less rate of mortality than when in barracks at home, and this continued until the close of the war. The French, the Sardinians, and the Russian soldiers, however, knew of no such abatement of camp and hospital sickness, the destruction of life having gone on up to the close of the war. Full details may be found in the Army Returns of the several nations, and in a pamphlet by Surgeon-General T. Longmore, entitled "The Sanitary Contrasts of the British and French Armies during the Crimean War." 1883.

Without giving the details furnished by Surgeon-General Longmore, I may state, from pp. 17, 18, the British army in the first winter had 2286 deaths from fevers of all kinds; second winter, reduced to 129; under typhus, from 164 to 16. Amongst the French troops, 90 the first winter, 10,278 the second winter. The French had no sanitary commission, the hospitals remained unscavenged, unventilated, and their hospital drains unimproved—the result being excessive overcrowding, until men and doctors alike perished; the British hospitals being absolutely free from typhus cases. Taking these results into account, Surgeon-General Longmore states: "It is well that the practical lessons in sanitary science afforded by the events of the Crimean War should not be allowed to pass out of mind." In this remark I cordially agree.

## ARMY SANITATION.

By EDWIN CHADWICK, C.B.(a)

MY action in Army Sanitation, I beg to state, has not been on my own mere intuition, but on the careful consideration of such experiences as those of Sir John Pringle (the greatest sanitarian of the last century) with the army in Flanders, and also of Sir J. McGregor with the army in Spain, together with the experiences of other officers in the tropics—experiences which do not enter into the studies of the curative science. There has been a continued neglect of sanitary experience in the Army down to the present day, entailing a continuity of losses greater than by the sword, if it be not arrested. If the experience of Sir John Pringle had been regarded and acted upon, the disaster that occurred from insanitary conditions at Walcheren would have been averted. If the lesson given by the repeated disaster at Walcheren had been properly attended to, two-thirds of the losses sustained during the first Peninsular campaign might have been prevented. If the experiences of the working of the rudimentary principles of sanitation during the last part of the Peninsular campaign had been properly attended to, of which clear warning was offered by himself, the first army in the Crimea would have been saved from the disaster which befell it, and from the repetition of which the second army was saved by the work of our sanitary lieutenants of the first General Board of Health, and sent back, as the Minister of War declared, in a better state of health than the army at home—that is to say, the deaths were reduced, as shown in Mr. Rawlinson's paper, by sanitation from thousands to hundreds. But the lesson then given, it now appears, has been again set aside; there has been, as declared on strong testimony (which has yet to be examined), another break-down of the curative service and another neglect of the preventive service displayed in the army in Egypt. Again, the losses in the old ratio of the loss of one from the sword, but of three and more from diseases which all sanitarians know to be preventable—diarrhoea, dysentery, and enteric fever—from bad camping grounds forewarned to be bad, and which if held for strategical reasons (which are denied) were capable of being amended; foul quarters, which proper provision would have cleansed; bad food; and then for the sick in the hospitals, bad food, failure in medicines, and inferior treatment. And then, too, the inquiry into the defaults has been committed chiefly to the heads of the defaulting departments, without a single sanitary officer in authority, and with the excuse for the failure that it has not been worse than it has been before in the time of Abercrombie, that it has been no worse than what has been usual, omitting all notice of the work done by our sanitary officers with the second army in the Crimea. No notice was taken by the Committee of that great preventive work described by Mr. Rawlinson, as was to be expected from lay members who knew nothing of it. But this defence, that the losses have been no greater than before, has the pregnant import that, under the existing conditions, in any future wars, the losses to be sustained will be as great as they have been heretofore, of one from the sword, and three from disease; and there can be little doubt, when examined, that in the existing conditions of administration of the work and neglectful position of the preventive service, it must continue, as it has been, of tremendous preventable loss in future wars and of weak and tardy sanitation at home. The course taken on the return of the army from the Crimea will be found to have been little creditable to the legislative intelligence and administrative capacity of that time. The very defaulters with the first army, some of whom might fairly have been put on their trial, were all decorated, whilst every sanitary officer who had contributed to the really great achievement was dismissed without any recognition whatever. We have, in fact, all been treated as if our principles had been set aside (as indeed much of them have been); as if we had been doing something bad which ought not to be repeated. Lord Palmerston saw clearly the position, as shown in his letter read by Mr. Rawlinson, and Lord

(a) An abstract of the remarks made in the debate on Mr. Rawlinson's address at the Parkes Museum, June 21.



Palmerston directed the organisation of a preventive service, distinct from the curative service, and also from the combative service, and yet amenable to superior command. He had clear experience of the great success of that intermediate service. Why, then, was the sanitary service abandoned to those jealousies of both which he foresaw and expressed? Some time afterwards I represented to Lord Stanley, now Lord Derby, and by a paper read at the Congress held at Liverpool, that the experience gained by the Sanitary Commission in the Crimea should be applied for the service in India. On the consideration of the facts presented to him in that respect, his lordship advised Her Majesty to appoint a commission of inquiry into the condition of the Indian Army in that respect. Hence the appointment of the Army Sanitary Commission presided over by Mr. Sidney Herbert. I cannot go into the details of sanitary service rendered to the home army by the Barrack and Hospital Commission, nor the service of the same sanitary officers on the Indian Army Sanitary Commission. It suffices to state that for the last decade the saving of force has been of forty thousand men from death and a proportion of sickness, and five millions of money; and yet this saving is far from complete, owing to the imperfect attributions of the Sanitary Commissioners, and this saving is threatened by the neglect of the sanitary service and the threat of its impending extinction by being merged in the curative service, of which some of the consequences have been displayed in Egypt. The testimony of the combative service goes to this, that the curative service should be confined exclusively to the exercise of its own high service in the hospitals; and the testimony of the officers of the service is that the work of sanitation will fail if it is left to the combative service. The question is one which needs the intervention of a superior independent authority, for which the arrangements of the second army in the Crimea may be submitted as a safe precedent. It may be commended to the consideration of the Government, and will undoubtedly meet with the approbation of the public and of Parliament, that active support is due to the preventive or sanitary service, which is only midway in the civil work as well as the military service at home. The strengthening of the sanitary service is especially needed for civil work in India, where it may be shown that having succession there and holding that great Empire, as well as the well-being of the population, is dependent on effective sanitation. But, as has been discussed by impartial authorities, independently of myself, at sanitary congresses, it may be claimed as a first step that the service should be put in a position due to its increasing importance, and that recognition, not to say reparation for injurious neglect, should be given for the elaboration of sanitary principles and for their successful administrative application, which, be it remembered, have during the last decade saved forty thousand of military force and five millions of money, and in England and Wales a quarter of a million of lives, and, moreover, according to the last census, has given an extension of two years of life to the whole population. It is to be seen what the judgment will be on the question, at least for the past.

**EVONYMIN.**—In a *thèse* just published, Dr. Cornil states that this substance is a resin, or rather a mixture of various resins, exacted from *Evonymus atro-purpureus* by precipitating it from an alcoholic tincture of the bark. Its action is that of a stimulant of the biliary apparatus. It does not act on the intestine in most cases as a hydrogogue, but by inducing contraction of the muscles of the bowel. It is laxative and cholagogic, and does not operate as a violent purgative, producing only one or two stools some hours after its administration. It often gives rise to colicky pain, which might be prevented by combining it with an opiate. Its efficacious dose varies from ten to forty centigrammes. Its action is temporary, being scarcely prolonged beyond twelve days; and when this becomes exhausted, it cannot be aroused by increase of dose.—*Jour. de Thérap.*, June 10.

**THE UNITED STATES EPIDEMIC FUND.**—The Epidemic Fund of \$100,000, to be used at the discretion of the President, will be employed only in case of actual or threatened epidemic, in which event the Secretary of the Treasury is empowered by the President to disburse the fund in aid of State and local boards of health to prevent the introduction or spread of disease.—*New York Med. Record*.

## AN ADDRESS

DELIVERED TO THE STUDENTS OF THE

## CHARING-CROSS HOSPITAL MEDICAL SCHOOL.

By GENERAL LORD WOLSELEY, G.C.B.,

ON THURSDAY, JULY 5.

AFTER distributing the prizes gained in the examinations, Lord Wolseley said:—

When I came here I was not aware I was to have the pleasure of addressing ladies as well as gentlemen, and the few remarks I have to make will be addressed, not to the ladies, but to the gentlemen, especially those whom I have had the pleasure of seeing on parade, and those whom I had the satisfaction of giving prizes to. I need scarcely tell you that it is a great pleasure to a man in my position to come here to-day, for very many reasons. First, I have the opportunity afforded me of being brought into contact with a number of young men who are now about to begin life, and launch their ships to go on the stormy sea, and who have a great number of storms, difficulties, and trials to encounter. It is always a pleasure, therefore, to feel once more brought into contact with young men. It reminds one of what I had to do many years ago, and I cannot look back to that time and the various occurrences which have taken place in my career without warning those who are about to follow my example, and others also who have embarked on the difficult and thorny path of life, above all things never to be discouraged. If you find difficulties in your way, as every man does, you must remember that difficulties are only made for brave men to encounter and overcome. It is the weak-hearted and poor-hearted who, when they have had a bad fall in their race, get disheartened and do nothing. The brave men and the sturdy men look on the fall or misadventure as something to be laughed at, and something in the way of an instructive lesson with regard to their future conduct in life. It has been my good fortune to be brought into contact with this noble profession in which you are all about to embark, but more especially that branch of the profession which belongs to the Army. I have had a great deal to do with them, and I may say they have had a good deal to do with me. Like most men who have been in the Army, I have had my own share of the knocks and blows, and I owe a great deal to the medical profession,—I do not think any man in the Army owes more to them; and looking back, as I can, over a great number of campaigns, I can confidently say I have never been brought into contact with any body of men, no matter what the department of life or branch of the service, who have done their duty with greater devotion to the service and humanity than the medical officers of the Army. I have had a paper handed to me before I came here, on the Volunteer Medical Organisation, and my eye fell on one paragraph of it, and it is this—"We may say in passing that probably no battlefield since the world began was so promptly and efficiently cleared of its wounded as was the recent field at Tel-el-Kebir. The wounded were all off the ground and within the hospital a very short time after the fight." Now that, of course, attracted my attention particularly, as it refers to an event with which I had to do last year, and I can bear out the truth of the statements made there. On no previous occasion that I am aware of have the wounded in the engagement been better looked after than they were then. In the medical profession, which is a very great one, like all other professions, it is absurd to imagine that there should not be some failures. There are failures among the doctors; there are plenty of failures among the generals in the Army, and in all branches of the Army there are a number of failures. Therefore I should not make out to you that every medical man who took part in every war in



which I have been engaged was a perfect man; but, looking at them as a body of men, I say, no body of men have ever done their work better than they. I am aware that in the medical branch of the Army there are changes and reforms to be made. So there are in every other department of the Army. No army is ever a perfect one; an army must change constantly if it wishes to be efficient, and the Medical Department is no exception to the rule. What could be more ridiculous than if we were to attempt to carry on the medical affairs of the Army on the same system as they were carried on during the Peninsular or Crimean War? The Medical Service requires to change, as we change our arms and munitions of war. Every branch of science and invention in all the scientific arrangements react on the Army, and there is no department in which invention reacts more forcibly than the Medical Department. But although I may find fault with the Medical Department of the Army there is no reason that we should find fault with the medical officers, and I have never done so, and I have never seen any reason to do so during my long career. I have always found them thoroughly and jealously anxious to carry out the duties to be performed. Now, with regard to your own School, it is unnecessary for me, after the very able address which you have heard read, to go into the particulars as to the number of students. The results which have been explained to you in the address speak for themselves. That tells you the number of men who have been successful in the various examinations last year, and the number who have successfully competed to enter the Army and Navy. Those results are most creditable to this School, and, in common with everyone, I am sure we all wish this School success most cordially and most sincerely. This paper which I have referred to reminds me of the drill that I have seen in the barrack-square, which has been remarkably well done. I may say very well done indeed, considering the amount of time you have had at your disposal. I only wish that the system which now holds good in this School could be extended to all the medical schools in the country. Every man who really takes a certificate, every man who becomes a medical officer or obtains a surgical certificate, should not only acquire the ordinary certificate, but he should in case of emergency be able to carry out the duties of a military surgeon as well as of a civil surgeon. I would express a still further opinion, and it is this: I cannot see why there should not be in London, and also in the other towns, but especially in London, a Volunteer Medical Corps. I think that would be a popular corps, and if the other medical schools contributed as many well-drilled gentlemen as those whom I have inspected to-day, it would be a corps of the greatest possible service to the country, and especially the Army. I hope that those whom I have addressed will think of this, especially those who have the direction of this and other medical schools. It would be an immense boon to the Army and the country. Remember, that although we have a large Medical Department, it is only just sufficiently large for our own medical department in peace, and in the event of war or invasion, or any other difficulty overtaking us, which would require a large force of men to be put in the field, we have not now the medical officers in this country to supply the wants of that force. If a volunteer medical battalion or corps were started, and worked as it would be worked by these men, that would supply the very great want which all military men who have studied this question deeply deplore. Gentlemen, I hope you will think of this, and if ever I have the pleasure to come here again, I hope I may have the pleasure to be able to congratulate such a corps on its formation and success. I shall not say more than to say it has been a great pleasure to me to give away these prizes, especially to those whose names I see repeated several times, like Mr. Morgan, to whom I have given four or five prizes, and I congratulate them on their success, and I wish them in future life all success that their profession could give them; and, in congratulating them, I would also say that I hope those who have not succeeded in getting prizes will not be disheartened. We can all start in a race, but we cannot all win; but there is no reason, if we do not win one year, why we should not next year. I hope those who have been unsuccessful this year may be fortunate enough to win medals next year. I wish you good luck in the profession to which you are about to aspire.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### MELBOURNE HOSPITAL.

#### TWO CASES OF NEURO-FIBROMATA.

(Under the care of JAMES W. BARRETT, M.B. Ch.B. Sydney.)

##### Case 1.—*Diffused Neuro-Fibromata.*

THOMAS E., aged twenty-one, single, native of Lancashire, left England when twelve years of age, and has since followed the occupation of sailor.

*Previous History.*—The patient came to Victoria eighteen months since, and at that time he first noticed a few small lumps situated beneath the skin on the right side of the chest. They were hard, and only painful when injured. Their size was about that of a pea, and their subsequent growth has been very slow indeed, but similar lumps have rapidly made their appearance on all the other parts of the body except the hands, feet, head, and genitals. None of them have grown to any great size. Two years ago he had a fit, during which he lost consciousness; six weeks ago he had a second similar fit; and two days ago a third. The only previous illness with which he has been troubled was a liver complaint, which prostrated him for seven weeks when he was eleven years of age. He was then jaundiced. His paternal grandfather and his father both died of consumption. His maternal grandfather, his mother, sisters, and uncles are all living, and in good health, with the exception of a maternal uncle who suffers from "fits."

*Present Condition.*—On examination, the patient is seen to be of small stature, but of fairly well developed frame, with moderate muscular development. Face pale. All the organs seem healthy except the heart, which is excitable, the patient suffering from palpitation very frequently. Almost all the nerves of the body which can be examined by the finger are affected, with firm oval or round growths situated on them, and interrupting their continuity. In the case of the oval ones the nerves are attached to each end of the oval. They can be moved freely in a direction at right angles to that of the nerve on which they are placed, and but slightly in its direction, and then only with pain. The size varies from that of a walnut to that of a pin's head or smaller still, but the average size is about that of a small marble. They are all hard and firm. Their number was not ascertainable definitely, being many thousands. Some, if not most, of the nerves have become mere chains of these growths, and where there are no apparent nodules still the nerve is enlarged and hard, probably owing to a multitude of infinitely small ones being situated on it. The internal cutaneous nerve in the forearm is affected from its origin to its terminal branches of distribution, and can be lifted with the fingers from the deep fascia, and when pulled on far down in the forearm can be felt to move in the arm.

*Details of Distribution.*—Right upper limb: The posterior interosseous nerve and its branches, the radial nerve, the cutaneous nerves of the forearm, the median nerve in the arm and as far as it can be traced in the forearm, and part of the musculo-spiral, have become mere chains of these growths. The ulnar nerve is also affected just where it passes between the olecranon and internal condyle. All the nerves running along the axillary artery are in a similar condition. With the exception of the musculo-spiral, the same description applies exactly to the left upper limb. Both the hands are apparently free from disease. The head is not affected. Neck: A few branches of the superficial cervical plexus are affected, and both spinal accessories are extensively involved. Trunk: Most of the superficial branches of the posterior spinal nerves are similarly diseased, and all the anterior cutaneous branches of the intercostal and abdominal nerves are in the same state, the growths on the right side of the thorax being the larger. Lower limbs: Both equally affected, nearly all the cutaneous nerves being chains of fibromata—the musculo-cutaneous at their emergence, the long saphenous, the external saphenous, the internal, middle, and external cutaneous nerves, the internal and external popliteal, and, in fact, every nerve that can be felt in the leg or thigh, are in this condition. The feet are not involved. From the sensation caused by pressure over the







mess president, and whenever anything was wanted we always went to the doctor, and he was always ready to do anything; he was a clever, good fellow." But the regimental system has passed away, and its full restoration has become an impossibility. The British public has to be considered, and the taxpayers are becoming more inquisitive every day. There is no doubt that "station hospitals" afford as good or better treatment for serious cases, and can be more economically worked, than the innumerable regimental hospitals of the olden time. Never more shall the "good old doctor" be part and parcel of a regiment, as irremovable as the colonel himself, and to a great degree independent of the authorities of the Army Medical Department; no more shall he pass hours of dignified ease, after visiting his ten or twelve patients, of whom three, perhaps, were serious cases; never again shall the genial medico be the beloved mess president; and gone are the days when the knowing and well-to-do doctor could purchase immunity from foreign disease by negotiating a judicious exchange with the doctor of a regiment just "come home," when his own regiment was unluckily ordered out, let us say, to the West Indies. But although the old system cannot be fully restored, there is a cry for a *partial* restoration; and there is a certain amount of reason for it. It is proposed to attach a medical officer for duty with a regiment at home. Colonel after colonel expresses a desire for such a change. What they object to is the constant change of medical attendants which often exists. It is mentioned (14,069) that in one instance "in fourteen months the return showed that thirteen medical officers had been in charge of the battalion." It is almost ludicrous to read (13,960) how long an officer at Chatham was in pursuit of a doctor before he caught him. No wonder this combatant officer would reverse the existing system. We must here observe that at present a medical officer attached to a station hospital does extra duty by visiting a regiment daily; and what is proposed is that a doctor should be attached to a regiment and do extra duty daily at the nearest station hospital. The difference is greater than it seems. Considering that all serious cases are removed to the station hospital, there seems little reason for lessening the ties which bind medical officers to their most severe professional work in order to satisfy the requirements of the officers and women of a regiment. Combatant officers acknowledge that there would be very little for a regimental medical officer to do in time of peace, and mostly are of opinion that he might fill up his time at a station hospital: but two things seem pretty evident—the change is not required in the interest of the men, who are never now treated regimentally; and if it were made in the interest of the officers and women of a regiment, the medical service would suffer. "No man can serve two masters." There is an amount of independence in the position of a regimental doctor which would not fit him for due subordination to the superior of his own department. The opinion expressed by the Committee on this point (page xxxi., par. 184) gives very little encouragement to any medical officers who may still wish for such comparative independence. It runs thus:—"We are also of opinion that the medical service of the Household Troops should be assimilated to that of the Army at large." "Moreover, the evidence which we have received proves conclusively that it is unadvisable that the Household Troops and the rest of the Army should be worked under different, and to some extent *independent*, systems." Still it is very evident that greater consideration should be shown to undoubted regimental requirements. It is not right that the medical officer detailed to visit a regiment should reside far away from it. Accidents may happen at any moment, and cases of childbirth will occur before the

expected time. It would be impossible to detail a medical officer from all other duty to provide against such occasional emergencies, and soldiers, like civilians, must take their chance of the doctor being sometimes "out of the way," yet every care should be taken to take them as little "out of the way" as possible. We find the Committee recognising this at page xxxi., par. 183. They say, "We believe the inconvenience now justly complained of can be remedied without departing from the present system. The medical officers appointed to attend the officers and families of any body of troops should have quarters in barracks, or should reside as near to the barracks as possible." We certainly hold that a doctor should always be available, but that it would not be right to detail a medical officer for an *indefinite* period for regimental work only. There is another danger which might arise from such an attempt to return to the regimental system. It is expressed at page xxx., par. 180 (Objections [5]), "It would in some cases involve a probable deterioration in the professional competence of the medical officer so detached." The Committee have a real desire to maintain the efficiency of the Army Medical Department, and they speak out very much to the purpose in their recommendations. They observe that "under the present system, the public has less guarantee for the efficiency of the army medical officers than formerly. After the Crimean War a system of examination for promotion was introduced, but it was abolished in 1874 as regards the army medical officer; and, although in the Army such examinations have become more and more extended, in the Medical Department every test of such a nature has been discarded." This, in the opinion of the Committee, was a great mistake; they argue—"Regimental officers are subject to periodical examinations up to the rank of field officer; whereas medical officers, whose training should be of the most scientific nature, are deprived of any such test, and are promoted by seniority or selection, without the protective and stimulative influence of examinations." And in conclusion they say—"We recommend that the system of examinations for promotion should be restored. That between three and seven years' service every medical officer should pass through an examination, more especially in practical subjects, such as operative surgery, on which should depend his promotion to the rank of surgeon-major; and that greater facilities should be given for special courses of study in civil or military hospitals in London or in foreign capitals. They further recommend that "the proposed examinations should include, in addition to the strictly professional subjects connected with medicine and surgery, theoretical and practical, all matters relating to army hospital administration, under which head are included nursing, ward management, purveying, cooking, and sanitary matters." There is unquestionably much to be said in favour of this recommendation. It may be somewhat difficult to carry out. Good and thoroughly just examiners are always scarce; and it certainly will not be easy to select and keep up a thoroughly fair and reliable body of men to test practically, in the range of subjects mentioned, the fitness or unfitness of army medical officers for promotion. The Committee do not say why army medical officers were "deprived"—the word is a happy one—of the examination for promotion; but the simple fact is that the Army Medical Service had, through the blundering mismanagement and bad faith of successive Secretaries of State for War, become so unpopular that till 1879 every device but the simple one of good pay, with good treatment, and honesty in fulfilling engagements, was tried to tempt men into the Service; and the examination as then conducted was decidedly unpopular. Some of the officers then in the



Service may have been pleased to escape a test looming in the near distance, and have been led to stay in the Service by the abolition of the examination; but we are not aware that it was ever asked for by the Medical Department, and the main cause of its abolition was the introduction of the "ten years' service system." It would, we think, be well that it should be restored. The evidence given on this point by Surgeon-General Longmore and Brigade Surgeon H. R. L. Veale points very strongly and clearly in this direction; and it certainly appears to us that, if well done, it will be wisely done. Every step that tends to keep a medical officer in the front rank of his profession is a step in the right direction. The higher the scientific knowledge, so much greater will the probabilities be that all friction between combatant and non-combatant officers will cease. Both may learn to acknowledge the proper limits of their separate empires. It may be that under the regimental system some not too wise doctors made the mistake of over-valuing dress, feathers, and gold lace. But all that is desirable in hospital discipline can be easily acquired by men of full education without a preliminary training as "regimental doctors."

### THE USE OF SECLUSION OF THE INSANE.

THE Commissioners in Lunacy are by law invested with the duty of inquiring at every visit to an asylum as to the use of seclusion in the treatment of the patients therein; and the results of their inquiries are nearly always embodied in the Reports that are annually published and circulated throughout the country. This very wholesome enactment was made at a time (in 1845) when the treatment of insanity was very different from what it is now, and when the employment of restraint and seclusion was very commonly, and sometimes very grossly, abused; and it is no doubt mainly owing to the Reports and comments that have been made under this regulation that their use has been reduced to its present inconsiderable amount. Meanwhile, thorough exposure to the light and air of free publicity has so purified the administration of our asylums, and the humane treatment of lunatics has become so ingrained into our modern habits, that the regulation in question is but little needed as a safeguard, and it has come at length to have an effect not wholly beneficial. The publication of the Reports of the Commissioners has brought about a spirit of emulation among the superintendents of asylums, each trying to obtain as favourable a record as possible, and the constant enumeration of the number of patients secluded, and the number of hours that they were in durance, has contributed to keep up, in reference to the use of seclusion, the stigma that formerly and justly adhered to its abuse. So that we now have the not infrequent boast by medical superintendents of the number of years that have elapsed without any resort to seclusion, the implied doctrine being that under all circumstances and in all cases seclusion is bad. Against this doctrine it is necessary to protest. Among the many improvements that have been introduced into the practice of surgery is that of securing immobility of a fractured leg by means of a fixed bandage of gum and chalk or some such material, and allowing the patient with this appliance to get up and go about his business days and even weeks earlier than he could otherwise have done. Now, suppose that general hospitals were visited periodically by Commissioners in Surgery, who should record and publish the number of cases in which this bandage was not used, and the number of days that cases of fractured leg were kept in bed: the inevitable consequence would be that, in anxiety to obtain a good record, the fixed bandage would be applied earlier and earlier, and with less and less careful discrimina-

tion of the cases to which it was appropriate, until in a few years treatment of a fractured tibia by rest in bed would be as much an exploded superstition as treatment of mania by seclusion is now, and we should have surgeons complacently recording the length of time that had elapsed since such a treatment had been adopted. In such a case the ill consequences would be so direct, so apparent and unmistakable, that a reaction would soon restore the present state of things, or more probably banish fixed bandages altogether from surgical practice; but the phenomena of insanity are so immensely complex, involved, and obscure, that the effect of any one factor in alleviating or aggravating their gravity is traceable with great difficulty. It is doubtless for this reason that the abolition of seclusion has raised no protest; for although the advantages that it offers in appropriate cases are patent enough, the ill effects that may arise from its disuse are so interspersed among other phenomena, so little evident on the surface, that they may easily be overlooked. That a patient in acute delirious mania is not favourably conditioned for recovery if allowed to mingle freely among other patients, and to suffer the inevitable retaliations that his delirious actions bring upon him, does not appear to need demonstration; and that the other patients are less likely to become excited if this source of disturbance is absent, is also tolerably manifest; and that in minor degrees of excitement the quietude, the solitude, and the freedom from disturbance that seclusion affords are not only beneficial but grateful to the patients, is seen in the fact that they occasionally beg to be secluded. While it is unquestionably wrong to seclude a patient merely to save the trouble of looking after him, it is none the less wrong to deny him the influence of seclusion as a therapeutic agent, if there is reason to believe that he would benefit by it. That its use has been withheld when its appropriateness has been recognised, we neither say nor believe; but there is great reason to believe that in cases in which it would be beneficial it is never thought of, because its use has become discredited. As well might we abolish the use of opium because it is poisonous in large doses, regardless of the enormous benefit that it affords in moderate doses and in appropriate cases, as abolish the use of seclusion because it has been abused. There is another aspect to the question, in which, though it is not medical, medical men are interested as citizens. When we hear of a patient engrossing the entire services of an attendant, or two attendants, by night as well as by day (that is to say, of four people in all), at a cost of some £200 or £250 a year, the question forces itself upon us, whether the self-denial and privation of the ratepayers that this sum represents are not a greater evil than the discomfort that the patient would suffer in seclusion. We are far from advocating the indiscriminate use of seclusion, but we think its indiscriminate rejection is unwise and even unjust.

### CHOLERA AND QUARANTINE.

THE present outbreak of cholera in Egypt—a country where, though we are in actual possession, other nations claim to have interests scarcely less than ours—cannot fail to bring to the front once more the long-vexed question of quarantine, to the neglect of which by British officials the French papers unanimously attribute the extension of the disease to Damietta and Alexandria. All previous epidemics had entered Europe from Persia by way of the Caspian Sea, but that of 1865-66 was an outcome of the Mecca pilgrimage, and was carried to the Mediterranean ports by returning pilgrims and other intercourse with Egypt. It could hardly be expected that tens of thousands of wretched pilgrims—ill-clad, ill-fed, and devoid of all sense of decency,—gathered



from every part of Africa and Asia, could camp out for weeks on a soil sodden with excreta without a certain number of cholera cases occurring among them; but the danger is intensified when the great Indian three and twelve year festivals of Juggernaut and Hurdwar have shortly preceded it, and already diffused the cholera-poison throughout Hindostan.

On more than one subsequent occasion—*e.g.*, in 1872 and 1878—has Europe been thus threatened from Mecca, but the detention and isolation of the sufferers, destruction or disinfection of their clothes, etc., and strict inspection of all shipping entering or leaving the port of Jeddah, have prevented the further dissemination of the disease. But the opening of the Suez Canal in 1869, and with it of direct communication between European ports and those of the East, renders the importation of cholera at any moment more probable than ever. Only recently a case occurred off Havre on board a ship just arrived from Bombay. And the problem is, how to avoid such accidents; for it may safely be asserted that, whether thanks to the better sanitary surroundings of the people, or more probably also to meteorological and climatic conditions, cholera never arises in Europe or America *de novo*, but invariably follows the lines of traffic and human intercourse, whether by land or sea. Once imported, the subsequent development and fatality is determined by the sanitary condition of the people, more especially, often solely, by the facilities presented—by geological features or by human perversity—for the pollution of the ground, air, and water, or of the drinking-water, whence ever it may be obtained, by faecal and specific matter. Attempts to cut off all communication between affected and, as yet, healthy countries are on land a physical, and by sea a social, impossibility. Commercial interests are not those of wealthy merchants only, but their violation affects the prosperity of all classes alike. The experience of the cattle plague showed that nothing short of the destruction of all suspected, as well as infected animals, and of everything with which they had come in contact, was really effective. Yet, if systematically, firmly, and intelligently carried out, quarantine in a modified form may do much; but inquiries must not be limited to the port whence a ship has sailed, if one would avoid such errors as the introduction of cholera into America in 1872 by Polish emigrants, the *ports* whence they sailed from Germany being free; or the infection of many German ships with yellow fever, in 1876-77, in Brazil, the reports from Rio being some months in arrear.

A clean bill of health must never be accepted without investigation, for ships may have called at infected ports, or there may have been deliberate concealment of facts, as when the French troopship *Corrèze* entered Suez with a clean bill, although cholera was raging at Saigon when she left on July 18, 1877, and before her arrival at Suez on August 24, sixty cases, with thirty deaths, had occurred on board. Indeed, owners, officers, and passengers are all interested in such concealment. But no good purpose can be served by quarantine of longer duration than the incubation period of the disease in question, although the detention should be reckoned afresh when any new case appears. If the voyage have taken a longer time, and no case have occurred on board, the crew and passengers may be passed at once, though the cargo should be viewed with suspicion in certain circumstances; as an example of which we may refer to the *Anne Maria*, which sailed from America to St. Nazaire, no case of yellow fever occurring in her passage of thirteen days. The crew who went on shore remained in health, but immediately on opening the hold almost all the men employed in landing the cargo were attacked. An actually infected ship should be purified by

pumping out the bilge, flushing the hold with a strong solution of chloride of zinc, removal of partitions and of planks in numerous places, and fumigation with sulphur, nitrous fumes, or chlorine, as in the case of infected rooms. If none of the men employed in the work sicken within the incubation period, she may be considered safe.

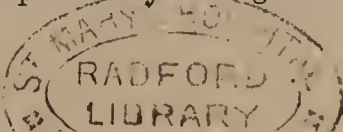
In the present alarm of cholera, which we cannot treat as a groundless scare, we consider that the strictest inquiry should be made into the health, as regards tendency to diarrhoea, etc., of all crews arriving from infected ports; and followed, if the result be unsatisfactory, by detention. For each of the past epidemics sprang from such directly imported cases. At the same time, every precaution should be taken that the disease, if it elude the vigilance of our port sanitary authorities, shall not find favouring conditions in our towns, especially as regards the risk of contamination of the water-supply and soakage of the subsoil around dwellings with faecal fluid. The germ of the disease must be first imported; next it must find a favourable soil. An ineffective, however obtrusive, quarantine system is a delusion, as tending to a false security, but it behoves us to look alike to the best means for preventing the introduction of the disease, and for preventing its spread if introduced.

## THE WEEK.

### TOPICS OF THE DAY.

In a case which recently came on for hearing in the Queen's Bench Division of the High Court of Justice, Mr. Justice Manisty is reported to have made some remarks which cannot be too extensively circulated. The action in question—*Godard and Wife v. North Metropolitan Tramways Company*—was recently tried before the Lord Chief Justice, and was to recover damages for personal injuries to Mrs. Godard. In March, 1882, whilst on a visit to some friends in London, she met with an accident whilst travelling by one of the defendants' cars. She was so much hurt that the assistance of a medical man was obtained, but he did not treat the case as being very serious. On her return to Brighton, where she resided, Dr. Arthur, a local practitioner, was called in, and he pronounced the lady to be suffering from two broken ribs. The defendants admitted their liability, and paid £60 into court; but the jury awarded an additional £100. A rule for a new trial, on the grounds that the damages were excessive, was obtained, and now came on for argument. In delivering judgment, Mr. Justice Manisty said he was of opinion that the rule should be discharged. The substantial ground on which the rule was moved was that the jury should have come to the conclusion that this was a concocted fraud, and great stress was laid on a letter written by Dr. Arthur to the Company, in which he invited them to send some one to examine the plaintiff as to the broken ribs, as he did not wish it to be said that this was a "hole-and-corner business." If that letter was the letter of a man who had conceived a gross fraud, and intended that it should be supported by false evidence, it was the stupidest way he could have gone about the matter, since the Company had it in their power to ascertain whether fraud was contemplated or not. Something was raked up by counsel at the trial against Dr. Arthur's character. This practice was every day becoming worse and worse, and he, for one, should do his best to stop it. The question of damages being one entirely for the jury, he should not be a party to disturbing the verdict. Mr. Justice Denman concurred, and although the Lord Chief Justice dissented, the majority of the Court being in favour of discharging the rule, a new trial was refused.

Much comment has been excited in France by the promulgation of the recent order of the Prefect of the Seine





abolishing hospital chaplaincies from the 1st inst., except in the case of hospitals the statutes of which require chaplains, and the Berck Hospital, where the distance from the parish church and the peculiar position of the infant inmates call for exceptional treatment. The alternative provided is, that if patients ask for religious ministrations the hospital authorities are to apply immediately at the parish church. This proceeding has rightly called forth a rebuke and a protest from Archbishop Guibert. He lays the proceeding to the influence of the Paris Municipality, a body which, he affirms, makes a parade of its hostility to religion; and he shows that although hospitals in small towns may be attended to by the parish priest, such a course will be impracticable in Paris, where hospitals will be found in parishes containing from fifty to sixty thousand inhabitants. He further points out that neither in France nor in any other Catholic country has the necessity for hospital chaplains been hitherto disputed.

At a recent meeting of the Paddington Board of Guardians, the Dispensary Committee reported that in the course of an investigation into the number of cases not finally accounted for in the vaccination returns of the Union, the vaccination officer had informed them that during the year 1882 he was unable to trace thirty-two cases of children born at certain houses in Tichborne-row. On making inquiries the vaccination officer found that the children were born of young women, sent for confinement to those houses from all parts (twelve of them having been sent from one particular home); that both mothers and children were removed at the end of a fortnight's stay, the children being placed out to nurse; and inquiries by the vaccination officer, both at Tichborne-row and at the home in question, had failed to elicit any information as to the destination of the children. The Committee recommended that these facts be brought to the notice of the Local Government Board, as showing one of the difficulties encountered in obtaining complete returns of successful vaccination. The report was unanimously adopted, and the clerk was instructed to make further inquiries at the home referred to.

A deputation of representatives from about forty metropolitan vestries and boards, including the Commissioners of Sewers for the City of London, recently had an interview with the President of the Local Government Board, with reference to the revival of the practice of extending telegraphic and telephonic wires over the London streets. Sir Arthur Hobhouse, in opening the subject, stated that the object of the vestries in seeking the interview was twofold. First, they contended that they were the only organised bodies representing the inhabitants of the metropolis, and they saw all around this new practice of stretching wires over the streets, which must eventually lead to accidents and inconvenience. They therefore felt it their duty to call the attention of the Government to the matter. In the second place, there was a prevailing opinion that the vestries possessed the power of interfering, though after taking legal advice they were informed that they had no control in these cases, their only remedy being to seek an interdict from a court of law. They therefore asked the Government to provide a remedy, either by introducing a Bill to vest in some local authority the right of control over the erection of these wires, or, if it were discovered that the authorities had power under the existing law, to take steps in order that such power might be declared by Parliament to be vested in the local governing body. In reply, Sir Charles Dilke said the Government were of opinion that the owners of wires had no special rights; the question to be considered was whether, in view of the great risks attending the wires, the local authorities

had power to interfere, and, if there were no such power, he agreed with the deputation that control should be vested in them. But the Government thought the authorities had this power, and until it was proved that they had not, he would not care to undertake legislation in face of the opposition which such a scheme would provoke.

The British public is a long-suffering body, but it is hardly wise of the water companies to strain their powers to the uttermost, in the face of the opposition which has of late been so freely expressed to their crushing monopolies. At a meeting of the Newington Vestry, held last week, it was resolved to direct the attention of the Board of Trade to a new regulation of the Southwark and Vauxhall Water Company, by which, after a few days' notice, the water-supply to houses might be cut off, and the tenants left without water for twenty-eight days, in consequence of non-payment of water-rates. Several members of the Vestry characterised the new regulation as "cruel and heartless," and the medical officer intimated that it was calculated to prove highly prejudicial to the health of the public generally. Several instances had come under his notice in which the Company had acted in a most arbitrary manner.

The twenty-eighth annual festival of the Poplar Hospital was recently held in the shape of a dinner at Limmer's Hotel, the chair being taken by Mr. James Duncan. The report called attention to the fact that this Hospital is situated in the midst of laborious and dangerous industries, and is therefore located in a position where it is most needed, being an ever-ready refuge in all cases of sudden and distressing accidents. During the past year no less than seven cases of fractured spine were received in the space of a fortnight, while the total number of patients (all under treatment for accidents) was 618, or twenty-five in excess of the previous year. Nevertheless, the total cost of maintenance was rather less than that for the year 1881; and this economy had been secured without any sacrifice of efficiency. The Hospital had succeeded in gaining the cordial support of the great shipowners, engineers, and employers of labour in the immediate neighbourhood, and many of these attended upon the present occasion to testify their estimation of the institution. Before the close of the evening, subscriptions amounting to £1700 were announced.

A conference on the administration of hospitals was this week opened in the rooms of the Society of Arts. Sir T. Fowell Buxton presided, and, in opening the proceedings, referred to the manner in which the various hospitals were distributed throughout London, observing that the greater number of beds were concentrated in the West and West-Central Districts. In view of the increased demand for hospital accommodation, it was a question whether there ought not to be some central body to determine in what way the demand should be met. He was in favour of a proposition of which we have heard before, viz., that a Royal Commission should be appointed to inquire into the whole question. At the close of the address, papers were read on hospital administration and other cognate subjects.

Recent published returns from Surgeon-General Irvine, principal medical officer to the army of occupation in Egypt, state that out of a total force at Cairo of 5135 men, 386 were on the sick list; of the 1578 troops stationed at Alexandria, 112 men were sick; while of the 98 men at Port Said, 5 only were under medical treatment. Of the various corps, the return of the Royal Engineers is the most favourable—only 10 out of a total strength of 181, or about 6 per cent., being on the sick list; while the regiment that is suffering most from disease is the Gordon Highlanders, with 96 men, out of a total strength of 702, in hospital. Telegraphic instructions have been sent out to Surgeon-General



Irvine to take every precaution for the health of the troops, in view of the outbreak of cholera in Egypt; and a draft of officers of the Army Medical Department and Army Hospital Corps is under orders to proceed to Egypt to strengthen the medical staff already there.

A recent statement issued from the Mansion House shows that the total sum received on account of the late Hospital Sunday Fund collection amounts to a little over £30,000.

#### THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows of the Royal College of Surgeons into the Council of that institution took place on Thursday, the 5th inst., and caused, as was expected, great interest, as there were no less than nine candidates for the three vacant seats—all well-known and good men; and as there were two provincial candidates, an unusually large number of Fellows attended from distant provincial towns. The candidates, taking them in seniority, were—Messrs. J. Cooper Forster, of Guy's Hospital; Sydney Jones, of St. Thomas's Hospital; George Lawson, of the Middlesex Hospital; Arthur E. Durham, of Guy's Hospital; R. Brudenell Carter, of St. George's Hospital; Reginald Harrison, of the Liverpool Royal Infirmary; Sir William Mac Cormac, of St. Thomas's Hospital; N. Charles Macnamara, of the Westminster Hospital; and Oliver Pemberton, of the Birmingham General Hospital. The President, Sir T. Spencer Wells, Bart., declared the ballot open at two o'clock, and the voting was not brought to a close until five o'clock, soon after which hour the President announced that the choice of the Fellows had fallen on Messrs. Cooper Forster, Sydney Jones, and Sir William Mac Cormac. The numbers polled by these candidates were as follows:—Mr. Cooper Forster, 181, including 2 plumpers; Mr. Sydney Jones, 125, including 21 plumpers; Sir William Mac Cormac, 119, including 8 plumpers. In the evening the Fellows dined together at the Albion Tavern, under the presidency of Mr. Luther Holden, late President of the College.

#### PRIZE DISTRIBUTION AT CHARING-CROSS HOSPITAL.

THE annual prize-giving of the School attached to this Hospital took place on Thursday last, when Lord Wolseley presided. Our readers will find in another column the address delivered by him.

#### ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT an extraordinary meeting of the Royal College of Physicians, held on Thursday, June 28, it was ordered—"That no present or gratuity be accepted from any candidate, or Fellow, Member, or Licentiate of the College on examination or admission, by anyone in the service of the College"; and it was directed that this order be suspended in a conspicuous part of the College. Dr. Herbert Watney was admitted a Fellow. On the motion of Dr. Andrew Clark, seconded by Sir Risdon Bennett, a special honorarium of two hundred guineas was voted to the Registrar, Dr. Pitman, in recognition of his long, valuable, and increasingly arduous services, and their inadequate remuneration. A Finance Committee was nominated, to consider and report on the salaries of the officers of the College. A communication was received from the Pharmacopœia Committee of the General Medical Council, and the following Fellows of the College were appointed a committee to consider and report what alterations, additions, or omissions, if any, it is desirable should be made in the proposed new edition of the British Pharmacopœia:—Drs. Munk, Garrod, Ringer, Brunton, Baxter, and Thudichum. Programmes of a proposed conference on the administration of hospitals, to be held at the House of the Society of Arts, were laid before

the Fellows. A committee, consisting of the following Fellows, was appointed to prepare a scheme for the proposed examination in Hygiene or State Medicine:—Drs. Corfield, Buchanan, Barclay, Bristowe, Barnes, Pavy, Thorne, and Gover. A by-law was passed to admit Dr. Osler, of Montreal, a Fellow *in absentia*. It was resolved, on the motion of Dr. Pitman, seconded by Dr. Acland—"That this College withdraw from the scheme, dated May 1, 1877, for a Con-joint Examining Board for England, at the expiration of one year from the 1st day of October, 1883; and that notice to that effect be given to all the medical authorities in England." A report from the Committee on the Protection of the College from Fire was adopted.

#### THE TELEPHONE FOR THE DUBLIN HOSPITALS.

WE understand that the Public Health Committee of the Corporation of Dublin have unanimously passed the following resolution:—"That the Secretary be instructed to inform the managing committees of the various hospitals subscribed to by the Corporation that this Committee considers it desirable that they should be placed in telephonic communication with their medical staffs after the manner of continental hospitals." This step on the part of the Sanitary Authority of Dublin cannot fail to commend itself alike to the medical profession and to the public.

#### THE METROPOLITAN WATER-SUPPLY FOR MAY LAST.

THE report of the Metropolitan Water Examiners for the month of May last records a slight, though not important, falling off in the quality of the supply delivered during the previous month. In dealing with the condition of the water previous to filtration, Colonel Bolton says the state of the water in the Thames at Hampton, Molesey, and Sunbury was good in quality from the 1st to the 11th of the month, when it became bad. On the 17th it again became good, and remained in that condition until the end of May. He again calls attention to the fact that the Southwark and Vauxhall Water Company, being totally unprovided with reservoirs for subsidence, have to draw from the river at all times; and consequently their filter-beds soon become choked up. It is to be presumed that since their revenue is substantially increasing, this Company will, before long, take steps to remedy a defect which has now existed for a considerable period. As regards the condition of the water after filtration, Dr. Frankland says the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, was, for river-water, unusually free from organic matter, though not quite so much so as in the previous month. With the exception of the sample of the Southwark Company's supply, which was very slightly turbid, and contained minute moving organisms, all the water was efficiently filtered before delivery. The water drawn from the river Lea by the New River and East London Companies was delivered in an efficiently filtered condition, and contained also an exceptionally small proportion of organic matter.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-fifth week of 1883, terminating June 21, was 1074 (568 males and 506 females), and of these there were from typhoid fever 36, small-pox 14, measles 29, scarlatina 5, pertussis 19, diphtheria and croup 33, dysentery 1, erysipelas 2, and puerperal infections 5. There were also 58 deaths from acute and tubercular meningitis, 212 from phthisis, 26 from acute bronchitis, 62 from pneumonia, 110 from infantile athrepsia (41 of the infants having been wholly or partially suckled), and 33 violent deaths (28 males and 5 females). The mortality



continues to be very slight, nothing special being observable concerning the epidemic diseases. The births for the week amounted to 1104, viz., 583 males (422 legitimate and 161 illegitimate) and 521 females (378 legitimate and 143 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 60 males (41 legitimate and 19 illegitimate) and 35 females (24 legitimate and 11 illegitimate).

#### OPENING OF THE PRINCESS ALICE MEMORIAL HOSPITAL AT EASTBOURNE.

ON Saturday last the Princess Alice Memorial Hospital at Eastbourne was opened by His Royal Highness the Prince of Wales, who was accompanied by the Princess of Wales and the Princess Elizabeth of Hesse, daughter of the late lamented Princess Alice. The inhabitants of Eastbourne had done everything possible to provide a Royal welcome for the distinguished visitors, who on their arrival were conducted to the entrance of the Hospital, where the Prince of Wales unlocked the front door with a ceremonial key. An inspection of the wards was then made; Dr. Gream, Physician to the Princess of Wales, a member of the Grand Committee, explaining the details of the building. The Hospital consists of a group of half-timbered Elizabethan buildings, highly picturesque in appearance, and fitted up internally with all the modern requirements of a sanitary nature. The town of Eastbourne may be fairly congratulated upon having designed a very handsome and very useful memorial, and on having carried out their project to its termination in a thoroughly scientific and efficient manner.

#### BERLIN HOSPITAL RETURNS FOR 1882.

It is stated in the *Deutsche Med. Woch.* for June 6, that there were admitted during 1882 into the nine Berlin hospitals (Charité, Friedrichshain, Hedwig, Bethanien, Moabit, Elisabeth, Lazarus, Augusta, and Jüdisches) 37,681 new patients, or 3.22 per 1000 inhabitants. The number admitted in 1879 was 34,613, or 3.25; in 1880, 38,189, or 3.45; and in 1881, 37,381, or 3.28—so that the proportionate numbers received remain much the same. The following are the distribution of diseases observed, and the percentages compared with the other diseases in 1882, viz.:—Small-pox 10 (0.02), varicella 9 (0.01), measles 98 (0.26), scarlatina 369 (1.00), diphtheria 1515 (4.02), croup 37 (0.10), pertussis 22 (0.06), typhoid fever 1138 (3.02), relapsing fever 6 (0.02), typhus fever 11 (0.03), epidemic trismus 7 (0.02), dysentery 134 (0.36), cholera 90 (0.24), puerperal fevers 90 (0.24), intermittent fever 117 (0.31), erysipelas 200 (0.53), syphilis and gonorrhœa 4800 (12.73), pneumonia and pleurisy 1089 (2.88), acute bronchial catarrh 167 (0.44), phthisis pulmonalis 2195 (5.83), other diseases of the respiratory organs 1395 (3.70), acute intestinal catarrh 263 (0.68), apoplexy 96 (0.26), chronic alcoholism 614 (1.63), articular rheumatism 721 (1.90), other rheumatic affections 1119 (2.97), injuries 2764 (7.33), all other unspecified diseases 18,605 (49.37). [Tables of this kind, in which nearly 50 per cent. of the diseases admitted are left unspecified, can be only of a limited utility, beyond showing the relative prevalence of the diseases named in the different years.]

#### THE PROPOSED SCOTCH LOCAL GOVERNMENT BOARD.

THE Local Government Board for Scotland, which the Government Bill proposes to create, is to consist of a President, with a salary of £2000 a year, and as *ex officio* members the Lord President of the Council, all the principal Secretaries of State, the Chancellor of the Exchequer, and the Lord Advocate. The President of the Board, if not a member of the House of Lords or a peer of Scotland, is to

be capable of being elected a member of the House of Commons, and the Presidency of the Board is to be one of those offices of profit, the acceptance of which in succession to another is not to vacate a seat in Parliament. As to the powers and duties of the President of the new Board, they are to be those now vested in the Home Secretary, the Privy Council, and the English Local Government Board, with respect to certain Scotch subjects. These matters relate to the Poor-law, lunacy, fishery boards, registration of births, marriages, and deaths, vaccination, marriage notices, general police, borough police, division of burghs into wards, markets and fairs, prisons, public parks, county general assessment, turnpike accounts, roads and bridges, locomotives, police, court-houses, rivers-pollution, burial-grounds, food and drugs adulteration, contagious diseases (animals), artisans' and labourers' dwellings, local taxation returns, vivisection, supervision of alkali works, factories and workshops, industrial schools, reformatories, mines, public health, loans by the Public Works Commissioners, etc. One clause expressly declares that the Bill is not to prejudice or interfere with any rights, powers, privileges, or duties of the Lord Advocate.

#### THE SUNDERLAND DISASTER.

IN the House of Commons, on Friday last week, the Vice-President of the Council was asked whether any steps would be taken by the Education Department to instruct school managers to insure the due supervision of school children brought together in large numbers for the purpose of entertainment in theatres or other like places of popular public amusement. Mr. Mundella replied that if the managers of schools would not of themselves recognise the lessons taught by the terrible disaster at Sunderland, he feared no circular from the Department would be of any avail. But in fact, he said, the matter was not within the jurisdiction of the Department; and he did not understand that in the case referred to the children attended collectively as scholars of public elementary schools. If they had done so, the managers and teachers would have been responsible, not only for their good conduct, but also for their safety. But the objectionable feature of the case was that the giver of the entertainment had been permitted to go the round of the schools of the town to tout for the sale of tickets to individual scholars; and ought in no circumstances to have been allowed.

#### THE WIRRAL HOSPITAL FOR SICK CHILDREN.

ON the 28th ult. the Duke of Westminster presided at the ceremony of opening the Wirral Children's Hospital, situated in Woodchurch-road, Oxtan, near Birkenhead. The institution in question was initiated by a few gentlemen of that vicinity in 1869, and proceedings were shortly afterwards commenced in a house containing six beds, which was the means of affording relief to sixty-two children during the first year. The first stone of the new building was laid on July 1 last year. It consists of a central block and one wing, calculated to afford accommodation for forty-two in-patients, and it is intended, when funds permit, to complete the design by erecting a second wing. The style of the building is domestic Gothic, and, without entering into details, it may be stated generally that every care has been taken in its erection to secure all the advantages required by modern sanitary science. The patients admitted are not, strictly speaking, of the pauper class, a fee of sixpence being exacted on the first application for the benefits of the dispensary, and one penny for every form of medicine supplied. It is stated that the purchase fund has been fully subscribed, and that the new building will start entirely free from debt; but, with a view of securing ample funds,



a bazaar and a variety of entertainments were held in the building on the 28th and two following days. The sum realised on the opening day amounted to £750.

#### THE VOLUNTEER AMBULANCE SERVICE.

ON Thursday afternoon Lord Wolseley inspected the Charing-cross Hospital Ambulance Company at St. George's Barracks. The Company consists solely of medical students connected with the Charing-cross Hospital, numbering about forty. Mr. James Cantlie (Senior Assistant-Surgeon to the Hospital), who has throughout played a most prominent part in the movement, put the Company through the bearer and stretcher drill of the Army Hospital Corps. We believe that this is the first occasion on which this movement has received official recognition on the part of the War Office authorities; and, considering the short time it has been in existence, the proficiency of the Company is certainly creditable.

#### PROFESSOR GUSTAV VALENTIN.

By an oversight we omitted to notice at the time the death of this distinguished physiologist (May 23), in the seventy-third year of his age. Born of a Jewish family in Breslau, after a most successful academical education he devoted himself to medicine, and even prior to his twenty-third year he took his doctor's degree, and published a treatise upon the Development of Plants and Animals, which at once became famous and obtained the prize of 3000 fr. from the French Institute. Important works followed this one after another, and three universities—Lutich, Bern, and Dorpat—offered him the chair of physiology. As the Russian Government insisted on a change of confession as a condition, he chose the chair of Bern, and continued as Professor of Physiology and the chief ornament of that University during thirty-five years. In 1881 he was seized with apoplexy, which left him hemiplegic. He was, however, enabled in that year to celebrate his jubilee of fifty years' doctorate, at which the high appreciation entertained of him by the scientific world was amply exhibited. We need not enumerate his numerous contributions to physiology and development, many of which were of a most distinguished character, and will form a portion of the history of science for all time. His treatise on Physiology, so famous in its days, was translated by the late Dr. Brinton.

#### WOOD PAVEMENTS AS EXCITANTS OF DISEASE.

WE should like to know who, or what, prompted Viscount Newport to accuse the extension of wood pavement in the metropolis of having caused a serious increase of affections of the eyes and lungs. It is of course highly desirable that our streets should be carefully, constantly, and thoroughly cleansed; and it must be admitted that there is room for improvement in that respect. It is satisfactory, therefore, to learn from the Chairman of the Metropolitan Board of Works that the cleansing and sweeping of the streets by boys employed for the purpose in the City and in some districts has appeared to be efficient; and that the same means are adopted by the Board of Works with regard to the Thames Embankment. But we have not received any reports from medical men of any notable increase of ophthalmic or pulmonary diseases.

#### THE MEDICAL SOCIETY OF LONDON.

THE annual oration of the Medical Society of London was delivered at the House of the Society on Monday evening, the 2nd inst., by Professor Edward Lund, Professor of Surgery, and Member of the Senate, Owens College, Man-

chester. His very able and suggestive address was given in the new and admirably proportioned meeting-room, the excellent acoustic properties and good ventilation of which were very satisfactorily proved. The oration was followed by a *conversazione*, which was honoured by the presence of H.R.H. the Prince of Wales. Some five hundred guests and Fellows of the Society were present in the course of the evening. Among the former were Prince Lucien Bonaparte, the Earl of Selkirk, Sir Bartle Frere, Sir Richard Temple, Sir James Hanbury, the Director-General of the Medical Department of the Navy, and other old friends of the President, Sir Joseph Fayrer.

#### THE SUMMER COMMENCEMENTS IN THE UNIVERSITY OF DUBLIN.

THE *Comitia Æstiva* in the University of Dublin this year possessed a special interest from the circumstance that honorary degrees were conferred on His Excellency Earl Spencer, Lord Lieutenant of Ireland; General Lord Wolseley of Cairo; Professor Crawford, the head of the Engineering School of Trinity College; and Dr. George Hugh Kidd, the Master of the Coombe Lying-in Hospital and ex-President of the Royal College of Surgeons in Ireland. Not the least interesting feature in the academical proceedings was the delivery by Professor Webb, the learned and eloquent Public Orator of the University, of a series of speeches, couched in elegant Latin, setting forth the claims of the several candidates for honorary degrees. In presenting Dr. Kidd for the degree of Magister in Arte Obstetriciâ, *honoris causâ*, Dr. Webb spoke as follows:—

“Et nunc mihi, Juno Lucina, fer opem! Ingenio parturienti meo adsis, precor; nam celebrandus adest castus ille sacerdos qui caerimoniis ac sacris tuis summâ cum religione praeesse solet. An me ludit insania poetae?”

“Continuo auditae voces, vagitus et ingens  
Infantum—  
non infantum, ut in inferis,

“Quos dulcis vitae exsortes, et ab utere raptos  
Abstulit atra dies—

sed quos favente Junone suâ, ad auras produxit Artis Obstetriciae Magister ille noster. Illius natalibus affulsit signum synonymum Haedorum—splendor, ut ferunt, pluvialis, sed quod de Danae refertur, pluvialis auro. Artis Obstetriciae aliquid debemus omnes. Artis praecipuae magistrum praecipuum salutemus universi.” Nothing can be happier than the play upon the words “signum synonymum Haedorum,” the allusion to Dr. Kidd's professional success in “pluvialis auro,” and the truism “Arti Obstetriciae aliquid debemus omnes.” We may be permitted to add our congratulations to Dr. Kidd, the worthy recipient of an honorary degree from the University of Dublin.

#### ST. ANDREWS GRADUATES' ASSOCIATION.

THE fifteenth annual session of the St. Andrews Graduates' Association was held at the House of the Medical Society of London, on June 30. The Treasurer's report showed a very flourishing condition of the funds. The Council's report congratulated the members on the avowed intention of the Government to withdraw the clause in the Universities (Scotland) Bill by which power was given to Commissioners to dissolve the University of St. Andrews; and also on their purpose to retain a representative of St. Andrews on the Medical Board for Scotland. Stress was laid on the need of close union, so that every effort might be made to retain and to extend the Medical Faculty of the University; and promise was given of an early meeting to consider the best means of aiding the University and the chairs of the Medical Faculty



by a money contribution from the graduates and their friends. The anniversary dinner was held in a beautiful and pleasant room of the Holborn Restaurant. Dr. Richardson, the President, was in the chair; and among the visitors were Lord Balfour of Burleigh, Sir Joseph Fayrer, K.C.S.I., Dr. Hassall, and Dr. Hayward. The following officers were elected for the ensuing year:—*President of Council*: Dr. Richardson, F.R.S. *Treasurer*: Dr. Paul. *Secretary*: Dr. Leonard W. Sedgwick. *Council*: Drs. Archibald, Alderson, Byars, Cholmeley, Christie, Cleveland, Corner, Crosby, Dale, A. G. Davey, J. G. Davey, Davies, Gillespie, Gordon, C.B., Griffiths, Henty, Hicks, Hill, Hood, Kesteven, Murray, Lindsay, Lipscombe, Longhurst, Mr. Menzies, Professor Pettigrew, F.R.S., Drs. Pocock, Royston, Seaton, J. Sedgwick, Semple, Smith, Stamper, Tibbits, Wilkinson, Willett, Rhys Williams, and Wyman.

#### AN EXTRAORDINARY ERRATUM.

THE *Gazette Hebdomadaire* (June 29) inserts a communication from an anonymous London correspondent, giving some account of the recent debate in the House of Commons on compulsory vaccination, and thus introduces Sir Lyon Playfair's masterly speech:—"Sir Lyon Playfair demanded that persons who did not believe in vaccination should no longer, under pain of a fine, be compelled to have their children vaccinated. From this he went on to make a fundamental charge against vaccination and vaccinators, attributing to them all the ills which humanity suffers from." It is true that in the next paragraph the narrator goes on to give Sir Lyon's arguments and figures in favour of vaccination, and to thus mystify his readers.

#### ICHTHYOSIS IN TABES.

IN the *Progrès Médical* (No. 20), MM. Ballet and Dutil give a short description of an ichthyotic condition of the skin which they have had occasion to observe in tabes, and which they regard as an essential part of the disease, and not as a mere coincidence. Compared with this, the lesions hitherto described—*e.g.*, herpetic eruptions, ecchymoses, perforating ulcer, etc.—are to be regarded as mere transitory occurrences. The ichthyosis is slowly developed, probably progressive, and seems to be analogous to the now well-known osseous lesions. The lesion, when present, is always found at those situations in which there has been previously some marked disturbance of sensation, either anæsthesia or hyperæsthesia or lightning pains. The limbs, and especially the arms, would seem to be the parts most frequently affected. The falling off of or alteration of the nails, which have already been described, would seem to be merely a particular example of this same lesion. Disorders of nutrition such as the one under consideration accord very well with the idea of a peripheral lesion which Pierret was the first to recognise.

ALL who have the pleasure of being personally acquainted with Dr. Pitman, the Registrar of the Royal College of Physicians of London, and who know how efficiently and how courteously he has served the public, the profession, and the College for now not far short of five-and-twenty years, will be glad to hear that the Queen has been pleased to intimate to him her gracious intention to confer upon him the honour of knighthood, in recognition of his services in the cause of medicine.

WE understand that the Dean of Llandaff (Dr. Vaughan, Master of the Temple) will take the chair at Dr. Ralfe's lecture on "The Hygiene of Schools," at the Parkes Museum, on Thursday, July 12, at 8 p.m.

ON Wednesday evening the President and Fellows of the Royal College of Physicians entertained a large and distinguished company at a *conversazione* held at the house of the College in Pall-mall. Among the guests were H.R.H. the Duke of Albany, Lord Chelmsford, Lord Denman, Bishop McDougall (who is a Fellow of the Royal College of Surgeons), the President of the Royal College of Surgeons, and Sir James Paget, as well as many other well-known members of the profession.

THE Gold Medal of the Apothecaries' Society, given after examination to the best candidate in Botany, has this year been awarded to Mr. G. B. Hoffmeister, B.A. Cantab., of St. Bartholomew's Hospital. The Silver Medal in the same subject has been won by Mr. F. W. Green, of St. Bartholomew's Hospital.

THE QUEEN has contributed £100 towards the fund for clearing off the debt on the Aberdeen Royal Infirmary.

THE Duke and Duchess of Albany have consented to be present at the flower show of the Society for Promoting Window Gardening among the Working Classes in the Parishes of St. Margaret and St. John, Westminster. The show will be held in Dean's-yard on Tuesday, July 10, at 2 p.m. The prizes will be distributed by Lord Shaftesbury in the evening.

It is reported that the Council of the Firth College, Sheffield, have just adopted a scheme by which the College is to be known as the Hallamshire University College, and to be incorporated by royal charter. It is to consist of three faculties—Arts, pure and applied Science, and Medicine.

THE building in course of erection for the Cottage Hospital, St. Paul's Cray, Kent, is on a site consisting of an acre and a quarter, fronting the main road from St. Mary Cray to Bexley; its situation is elevated and dry. The building is being erected by voluntary contributions, for the benefit of Chislehurst, Sidcup, Orpington, the Crays, and adjacent parishes, and the estimated cost is £2162.

THE Town Council of Stratford-on-Avon have just sanctioned a combined scheme of water-supply and sewage disposal, at an estimated cost of £23,500. The whole of the town sewage is at the present time discharged into the river Avon, and the Corporation have been threatened with injunctions.

THE anniversary meeting of the Sanitary Institute of Great Britain will be held in the theatre of the Royal Institution on Thursday, July 12, at 3 p.m. Professor Humphry, M.D., F.R.S., will preside, and an address will be delivered by W. Eassie, C.E., on "The Relationship between Geology and Sanitation." The medals and certificates awarded to the successful exhibitors at the Exhibition at Newcastle in 1882 will be presented.

DIPHThERIC PARALYSIS.—The *Revue Médicale* for May 26 quotes from the *Eira* a case of paralysis in which there was difficulty of speech and paresis of the lower limbs that supervened on an attack of diphtheria occurring a fortnight previously. Quinine and iron produced no amelioration, the paralysis getting worse, so that the lad could take neither food nor medicine. Dr. Boman then prescribed five milligrammes per diem of nitrate of strychnia, made up into suppositories, and in three or four days the condition of the patient (aged fifteen) was improved, and his recovery rapidly ensued.



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, JUNE 28.

*Imprisonment under the Vaccination Acts.*—Mr. P. Taylor asked a question as to the imprisonment of William Henry Kennard, of Shoreham, Sussex, for the non-payment of a fine under the Vaccination Acts, he having already paid 35s. on account of the same child, and the said W. H. Kennard having been compelled to pick oakum and to lie upon a plank bed.—Mr. George Russell, in reply, said: The Local Government Board have made inquiry, and find that, after repeated warnings, proceedings were instituted against W. H. Kennard in May, 1882, for not complying with an order of the justices for the vaccination of his child. The fine imposed, with all the costs, amounted to 35s., and this sum was paid. Proceedings were again instituted in May last. The man pleaded guilty, and was fined 20s., inclusive of costs, and, in default of distress, was sentenced to fourteen days' imprisonment. He was supposed to leave Shoreham for Brighton, and gave at the police-station an address which proved to be false, and he was subsequently arrested at Shoreham. The warrant of commitment did not impose hard labour, and the superintendent of police states that Kennard, on the day he left the gaol, informed him that he had been treated by everyone in the prison with a great deal of kindness. The views of the Board on the subject of repeated prosecutions are set forth in a letter which has been published as a Parliamentary paper, and are generally well known. When it had appeared desirable, a copy of that paper had been sent to a board of guardians.

*The Evil Effects of Wood Pavements on Health.*—Viscount Newport asked the Chairman of the Metropolitan Board of Works whether it is not the fact that, since the recent extension of wood pavements in the metropolis, serious affections of the eyes and of the lungs had been largely on the increase; and whether it would not be possible to mitigate this growing evil by a more careful and thorough system of cleansing the streets.—Sir J. M'Garel Hogg replied that the Board had not control over the streets, and that he had no information as to the evils referred to.

*Army Medical Arrangements.*—Lord Hartington, in reply to a question by Colonel Stanley, agreed that it would be convenient that all questions arising out of the report of Lord Morley's Committee on the Medical Arrangements in Egypt should be discussed together. He could not say what the Chairman of Committees might rule to be in or out of order, but the Government would not interpose any obstacle to the discussion of any point whatever that arose out of that report.

FRIDAY, JUNE 29.

*The Cholera in Egypt.*—The Marquis of Hartington, in reply to Lord Folkestone, said: The staff of medical officers in Egypt is sufficient to meet all probable requirements, and a reserve of medical officers is in readiness to proceed there if necessary. The supply of medicines is ample, and any article that it may be thought likely to be of use in case cholera attacks the troops will be added to the supply now in course of shipment. Instructions have been sent to the general officer in command to take every possible precaution to avert an outbreak of cholera, calling special attention to the Indian regulations on the subject; and information has been received that these instructions had been anticipated.

MONDAY, JULY 2.

*The Indian Medical Service.*—In answer to a question by Mr. Gibson as to great stagnation of promotion, and consequent dissatisfaction, in the Indian Medical Service, Mr. Cross said: The disbandment of native regiments, though it reduced the number of "independent charges," and thus added to the number of "unemployed" officers, could not affect their promotion, which, in the executive branches, is governed solely by length of service. As I have explained on a former occasion, a considerable reduction made in the number of appointments in the Service during the past and present years will shortly remove the difficulty temporarily experienced through the disproportion of officers to the number of independent charges. It is therefore not con-

sidered expedient to have recourse to an offer of higher rates of pension as an inducement to the senior officers to retire. The total loss of administrative appointments for the whole of the Indian Medical Service consequent on the reorganisation of the medical administration was only one. The injury to the Service is therefore nominal, though doubtless the arrangements consequent on the reorganisation have retarded the possible selection of a few officers. Such chances, however, are to be looked for in all branches of the public service, and are not in this case considered to justify the grant of any special compensation. The question of the future organisation of the Medical Service for India is now the subject of discussion with the War Office, but has no reference to any grievance of the Indian or British Medical Service, and it has not yet reached a stage at which any statement could be usefully made to the House.

*Artisans' Dwellings.*—Mr. Broadhurst asked the First Lord of the Treasury whether he would appoint a Royal Commission to inquire into the dwelling accommodation of the labouring classes, and into the evils consequent on overcrowding in the metropolis and other large towns, with a view to legislation on the subject.—Mr. Gladstone said that he believed the subject was ripe for discussion and legislation; but that discussion and legislation could hardly take place in the present session of Parliament. Her Majesty's Government were not, therefore, inclined to appoint a Commission under present circumstances, and it was too soon to forecast the business of next session.—In answer to Sir R. Cross, who asked whether Government would consent to issue a small Commission to report as to the state of parts of the metropolis which really ought to be subject to the alterations required by the Artisans' Dwellings Act, Sir W. Harcourt said he would consider the suggestion if the matter had not already been sufficiently inquired into.

TUESDAY, JULY 3.

*Hospitals for Infectious Disease in Ireland.*—Mr. Moore asked the Chief Secretary for Ireland whether he knew that the workhouse hospitals are in many districts the only similar institutions available for paying patients, and for people in well-to-do circumstances, when suffering from infectious diseases; whether there were powers of compulsory removal of such persons from their homes; whether all persons were compelled to wear the workhouse uniform while in hospital, and that great exception was taken to this by paying patients; and whether he would urge the Local Government Board to modify their rules in this respect.—Mr. Trevelyan said: The facts are as stated in the first two paragraphs of the question. The present practice with regard to the dress has been in force since 1862. Boards of guardians were then advised by the Local Government Board that persons in fever hospitals ought not to be allowed to wear their own clothing, but that a simple form of hospital dress, having nothing in common with the ordinary workhouse dress, should be provided. The Board believe that in some instances this rule has been relaxed in the case of the Royal Irish Constabulary and of other paying patients; but they regard this as very objectionable. They think that persons returning to their own homes in the dress they have worn in hospital would be likely to spread infection.

**INCREASE OF PHYSICIANS IN NEW YORK.**—In the list of registered physicians published in 1881 the total number given was about 2400. The number now is over 2800, showing an increase of about 400 in two years. During this time the population is estimated to have increased from 1,230,000 to 1,295,000, or about 65,000. In other words, there has been a new doctor for every 162 inhabitants. This does not take into account all the deaths and removals, which in the two years amount probably to above 80; still, even allowing for this, it shows how densely New York is becoming crowded with physicians, and that medical men are coming in, proportionally, much faster than the rest of the population. In 1881 the ratio of doctors to population was 1 to 514; now it is 1 to 463. The above figures relate to registered or legal practitioners. Of the 2800 now in the city, about 1800 are entitled to be termed regular by virtue of their names appearing in the Medical Register. There are therefore a thousand irregulars amongst us.—*New York Med. Record*, June 2.



## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### MR. JOHN SPEAR ON ENTERIC FEVER AT SOUTHBOROUGH.

IN the month of September last, Mr. John Spear was deputed by the Local Government Board to institute an inquiry as to the origin of an outbreak of enteric fever in the Urban Sanitary District of Southborough. This latter place is situated midway between Tunbridge and Tunbridge Wells; it has a population estimated at 3870 persons, and, as it possesses all the advantages of scenery, clear air, and dry soil, it is likely to increase quickly. Mr. Spear reports that, although the sewerage of the district is all but completed, there are no special means provided for flushing. Moreover, the sewers are carried for the most part down the front streets, and as the greater number of houses stand somewhat back from the road, and are built in detached blocks, a considerable length of private drain is required. In the construction of these private drains, Mr. Spear observes, the most unfortunate mismanagement has been shown; a large proportion of them allow of the deposition and retention of much of the sewage matter, the joints are defective and leaky, and right-angle junctions are generally provided, the result being that when the excrement reaches the sewer it is a highly putrid mass, resembling the ooze of a cesspool. As a consequence, the sewers are highly charged with offensive gases, and their surface ventilators are much, and justly, complained of. This condition of the drainage, leading as it does to the deposit of sewage and its leakage into the surrounding soil, is all the more hazardous since the water-supply of the whole district is solely derived from local wells. These wells, Mr. Spear adds, are rarely protected from immediate surface-pollution, and the majority of them are liable to most dangerous contamination. Between June 1 and the commencement of September, 1882, twenty-four houses in the district were known to have been invaded by the fever, thirty-three persons were attacked, and four died. The majority of the cases, Mr. Spear remarks, appear to have been typical attacks of enteric fever (four such cases he himself saw), and the nature of the whole series was sufficiently determined. The infected houses were, with one exception, situated in the district to the west of the main street—a district composed for the most part of cottage, or smaller house property,—and in several of these, notably in certain of those invaded by fever, the sewage stench was found to be almost intolerable. The Medical Officer of Health, reporting upon this outbreak to the Sanitary Authority just before Mr. Spear's visit, had given it as his opinion that "the improper and insufficient water-supply, and the direct access of sewer-gas into the dwellings," were the cause of the fever; and the facts elicited by Mr. Spear in the course of his investigations inclined him to the same opinion. Many of the harmful conditions noticed in his report may, he thinks, be readily dealt with by proper application of those provisions of the Public Health Act which deal with ordinary nuisances; and the judicious enforcement of by-laws—a duty which in the past has been so much neglected—will obviate any danger of the recurrence of such conditions in property hereafter erected. The improvement of the water-supply—the district's most urgent need—can, on the other hand, the report says, only be attained by the direct efforts of the Authority itself. For some time, it would appear, the provision of a public supply has been under consideration, and Mr. Spear is of opinion that the sooner such a provision is made, the better it will be for the health of the locality.

### MR. JOHN SPEAR ON FEVER IN THE BOROUGH OF ST. HELEN'S.

The continued prevalence of fever in the Urban Sanitary District of St. Helen's induced the Local Government Board to despatch Mr. John Spear in the middle of 1882 to institute inquiries as to its cause. It may briefly be explained that this district is situated on the south-western limits of the Lancashire coal-field, covering an area of 6586 acres, and having a population of 57,234. Its industries are

well known—coal mines, chemical works, alkali and copper-extracting works, and glass works,—and the pollution of the atmosphere by chemical fumes and coal-smoke has repeatedly been brought to public notice. With only few exceptions the deaths from fever have always been recorded under one or other of the synonyms of enteric or typhoid fever, and this form of fever has undoubtedly, the report remarks, been the prevailing disease. A close examination of the health-returns of the district for the past ten years shows that in only six of the 120 months (these six widely separated from each other) have the bills of mortality been free from the record of "fever," while the loss of life from this disease has been considerable. Further, throughout these ten years there has been in the behaviour of the disease a very close observance of that tendency which it possesses to assume a wider prevalence at certain seasonal periods—a characteristic, Mr. Spear observes, that is apt to be obscured in accidental outbreaks, and one, the continued exhibition of which might suggest that the infection, obeying from year to year the natural laws of its development and progress, is running a course little influenced by any but the permanent conditions of the locality. Dr. McNicoll, the Medical Officer of Health for St. Helen's, has frequently expressed his opinion that the sulphuretted hydrogen emitted from the heaps of alkali waste, and especially from the liquid which drains from these deposits when it meets the waste acid in the brook that runs through the centre of the town, is prejudicial to the health of the localities along the course of the brook, and wherever else this nuisance specially arises. But mortality statistics do not show this. In the six wards of the borough, three of which are mainly urban and the others extra-urban in character, and certain of which are distinctly more exposed than others to the nuisance of sulphuretted hydrogen, the fever-rate for the ten years previously mentioned was remarkably even. On the other hand, the result of his inquiries impressed Mr. Spear with the conviction that investigation of the cause of fever in St. Helen's resolved itself into a consideration of the general sanitary condition of the town. As regards water-supply, but few alterations were called for. The district is almost entirely supplied from the public mains, the water being obtained from deep wells in the sandstone rock, and nothing was found tending to implicate the public water-supply in the production of fever. The weak spots in the sanitary administration of the district are, in Mr. Spear's opinion, the drainage arrangements and the unsatisfactory system of refuse removal. The main sewer of St. Helen's is at the present time the town's brook; it possesses only its natural bed, and in most places its natural clayey or sandy sides; and its generally sluggish stream, reduced sometimes in dry weather to little more than crude sewage, is left to pursue its tortuous course through the district, only hastened here and there by very slight and inconsiderable works. The refuse removal is generally undertaken on the midden system, and, as Mr. Spear convinced himself by observation, is performed in a very slovenly manner. The recommendations attached to the report deal chiefly with these points, and with certain administrative changes in the present sanitary arrangements of the district; and, if these are actively carried out, Mr. Spear is of opinion that an improvement in the health of the town may confidently be expected.

### DR. PARSONS ON DIPHTHERIA IN THE HOLBEACH RURAL SANITARY DISTRICT.

Application having been made to the Local Government Board by the Guardians of the Holbeach Union for its sanction to the postponement of the October vaccination attendances in the Gedney vaccination district on account of an outbreak of diphtheria therein, and a report of the Medical Officer of Health, dated October last, having shown the outbreak to have been one of some severity, Dr. Parsons was despatched to make inquiries respecting it. On his arrival on November 1, the disease appeared to be dying out, the last known case being convalescent. Up to that time, however, from the commencement of the outbreak in the previous February, some twenty or thirty cases had come to the knowledge of the Medical Officer of Health, with seven deaths; but as several instances were met with, during the inquiry, in which families had been attacked with sore-throat without resorting to medical aid, there is little doubt that



numerous cases never came under his notice at all. The outbreak would appear to have been almost wholly confined to two adjacent places called Dawsmere and Gedney Drove End, adjoining the present coast of the Wash, and situate in a perfectly level district, one portion of which is called the Fen, and the other the Marshes. The Holbeach Rural District has been, so far as is known, free from diphtheria for some years until the February of 1882, when the first cases occurred at Gedney Drove End. There had, however, been an epidemic of diphtheria at King's Lynn, eleven miles as the crow flies south-east of Gedney Drove End. This epidemic commenced in September, 1881, and was the subject of a report to the Board by Dr. Airy. One, at least, of the Gedney cases, Dr. Parsons observes, was connected with that epidemic, namely, a boy at the Lynn Grammar School, of which two or three pupils had had diphtheria shortly before; he came home unwell on February 17 to Leamlands, an isolated house two or three miles from Gedney Drove End, and died of diphtheria on February 25. With the exception of another member of the family, who subsequently suffered from diphtheria, no connexion is traceable between this case and any other in the district. Moreover, this was not the first case which occurred in the district, since, on February 12, the daughter of a coastguardsman had been taken ill of it, and two members of the same family followed at successive intervals of a week. On a review of the whole circumstances of the case, Dr. Parsons is unable to say in what manner diphtheria was introduced into Gedney Drove End. He finds it difficult to account for the outbreak on defective sanitary conditions, since these have existed at Gedney Drove End for a number of years past, during which the place has, nevertheless, been free from diphtheria. Again, any meteorological or other conditions of a general nature would affect equally the adjoining villages, which have, nevertheless, escaped diphtheria, although local conditions similar to those mentioned are to be met with in them also. In view of the suggestion that the infectious matter of diphtheria may be conveyed long distances by the wind, Dr. Parsons procured from the coastguard at Gedney Drove End a table of the wind and weather from January to October, 1882, as recorded in their log-book. From this he found that, if it be conceded that infectious particles may be transmitted through the air for distances so great as that from Lynn to Gedney Drove End without losing their activity, the meteorological conditions in the latter part of January and beginning of February were favourable to such transmission. It may also be noticed, Dr. Parsons remarks, that when cases of diphtheria occurred at Lutton Marsh, the wind, which through March had been strong and westerly, veered to E. and N.E., i.e., it blew to Lutton Marsh from the direction of the places where diphtheria had previously existed. The prevailing winds, however, are from the W. and S.W., and these, after passing Dawsmere and Gedney Drove End, would blow over the Wash.

#### DR. PARSONS ON ENTERIC FEVER IN THE HOLBEACH RURAL SANITARY DISTRICT.

Whilst inspecting the Holbeach Rural Sanitary District in the November of last year, Dr. Parsons ascertained that enteric fever had been endemic for the past two years at a place in that neighbourhood called Whaplode Drove, and that scarlet fever had also been prevalent there, and accordingly, accompanied by the Medical Officer of Health for the district and Dr. Crowden, Poor-law Medical Officer, he proceeded to investigate the circumstances. Whaplode Drove is situated nine miles south of Holbeach, in the low-lying fen country, with a clay soil; the village is scattered, the houses standing in clusters of two or three along the course of two parallel roads and a connecting cross-road; many of them were found to be old and ill-built, and overcrowding was not infrequent. Although Dr. Parsons did not trace the cause of the outbreak of fever, he discovered ample reasons why, being once established in the locality, it would be difficult of removal. The only drainage existing was into ditches or cesspits, and in some places accumulations of stagnant dirty water were seen standing in the immediate neighbourhood of the houses. The privies were of the roughest description, standing over holes dug out in the earth. The water-supply was very bad. Some houses had proper cisterns, but at others rain had to

be caught in tubs or pails. When this supply failed, the nearest ponds and ditches had to be resorted to. At other houses, again, there were wells; but the subsoil being impervious clay, the water consisted merely of the soakage from the superficial soil, and was liable to be fouled by surface runnings and by soakage from neighbouring privies, pig-styes, etc., had commonly a yellowish or brownish hue, and contained floating impurities. Dr. Crowden informed Dr. Parsons that during the past two years he had had some thirty cases of enteric fever under his care at Whaplode Drove, some of which had been severe and well marked, although, with one exception, no deaths had occurred. The earliest case appeared to be that of a woman who had recently come to the neighbourhood to reside, and who died on December 2, 1880, of an illness which, although not so certified, was subsequently recognised to have been enteric fever. Close to the house where she died a small school was kept, the children attending which were taken in to see the corpse, and allowed to kiss it; some of them afterwards suffered from fever. In one household in Whaplode Drove in which enteric fever occurred, the disease appeared to have been imported, the parties having only arrived from Spalding a few days before. Scarlet fever was prevalent in the locality in the winter of 1881-82, and it would appear to have been spread through unrestricted intercourse between the children of different households. The want of wholesome water in parts of the Holbeach division, among which Whaplode Drove is conspicuous, was laid stress on by the Medical Officer of Health in his annual report to the Holbeach Rural Sanitary Authority for 1881, and formed the subject of a subsequent correspondence between the Board and the Sanitary Authority. The action of the Authority, however, seemed to have been limited to the serving of "threatening notices," with which some owners have complied by constructing rain-water cisterns, while others have disregarded them with impunity.

#### DR. PARSONS ON AN OUTBREAK OF DIPHTHERIA AT DEVONPORT.

On January 1, 1883, the Town Council of Devonport addressed a communication to the Local Government Board, requesting that an immediate inquiry might be made into an outbreak of diphtheria which had recently occurred in that borough. The matter was placed in the hands of Dr. Parsons, who spent from the 5th to the 8th of that month in making local investigations. Up to the date of this inspection the number of known recent cases of the disease was thirty-one, in eighteen households, of which five had proved fatal. The outbreak, however, had attracted attention less, perhaps, by the number of its victims than by their social position, the persons attacked having been members of the families and servants of professional men, and more especially of officers of the Army and Navy, including those in the highest positions of command in both services. In only one instance was a tradesman's family attacked, and no case is known to have occurred among the large working-class population. After a considerable amount of inquiry it was found that the greater number of the persons attacked had obtained their milk-supply from a particular dairy, although it is but right to add that these formed but a small percentage of the whole of the customers supplied from the same source. Nevertheless, the report remarks, the parts of the borough not supplied by this dairy escaped the disease, as did also the adjacent towns of Stonchouse and Plymouth. Dr. Parsons inspected the farm where the cows supplying the dairy were kept, but failed to discover anything suspicious. He next tried the shop where the milk was retailed; the residents were stated to have all been in good health, but next door a case of diphtheria had occurred early in December. The two houses had each a backyard surrounded by high buildings on all sides, forming a well of stagnant air common to the backs of the two premises. In the backyard of the milk-shop it was the custom to wash the milk-cans, and these, instead of being drained, were wiped inside with cloths, the latter being frequently washed and hung up to dry on a line in the yard. It should be stated that the milk in question bore a good reputation, and some samples analysed had been found to be of superior quality. The facts, Dr. Parsons adds, which he was able to collect, appeared to point to the following conclusions:—1. Although it cannot be affirmed with any degree of certainty that there was any



causal connexion between the outbreak of diphtheria and the particular dairy, yet the limitation of the disease to the consumers of the milk indicates that this was probably the case. 2. The small proportion of the customers attacked shows that any contamination of the milk by infective material could have been only partial and occasional in its occurrence. 3. The cause of diphtheria—if the infection was conveyed by milk—may have been some condition existing at the milk-shop premises or at the farm. 4. On the milk hypothesis, the milk must have first received infection about the beginning of December. The child in the adjoining house may have received infection from the same source, or from the milk itself, which she was in the habit of drinking. 5. The increased prevalence of the disease in the latter part of December—eighteen out of thirty-two cases having commenced between December 21 and 30 inclusive—may be due to infective matter reaching the milk in larger quantity from the case of diphtheria in the house adjoining the milk-shop. 6. It may be suggested whether the infective matter may have gained access to the milk by the wiping out of the cans with cloths which had been hung up in the narrow closebackyard, and had contracted impurities from the atmosphere. In concluding his report, Dr. Parsons says that the observation was made that many of the persons attacked by diphtheria were constitutionally liable to sore-throat, and it seems reasonable to suppose that a chronic ulceration of the throat, a ragged tonsil, or an enlarged mucous follicle, would afford easier lodgment to infective material, and a fitter soil for its development, than a healthy and unbroken mucous membrane.

#### DR. CHARLES KELLY ON THE COMBINED SANITARY DISTRICT OF WEST SUSSEX.

The Combined Sanitary District of West Sussex is formed by the union of seven rural and three urban districts, and its extent may be imagined when it is stated that it comprises, with one exception, all the unions of the western division of the county. This must prove an anxious charge for one medical officer, yet the annual report of Dr. C. Kelly for the year 1881 shows that he is thoroughly capable of supervising in sanitary matters this large district. The population, which in 1874 was estimated at 74,797, has increased, as shown by the census of 1881, to 94,511. In two districts—Petworth and Thakeham—the number of inhabitants has slightly declined; but Worthing, on the other hand, has increased its population to a greater extent than was ever anticipated. The vital statistics of the district show favourable results: the general death-rate of 13.9 per 1000 was lower than in any previous year, and Dr. Kelly remarks that old age is probably the most frequent cause of death in the locality; thus out of a total mortality for the year 1881 of 1323 persons, no less than 543 were aged sixty years and upwards, and he shows that out of 7819 deaths in 1876-81, 2039 were those of persons aged seventy and upwards, at which period of life all deaths, except perhaps those from accident, may properly be put down to the degenerative changes resulting from old age. Alluding to the improvements visible in the sanitary education of the population of this part of the country, the report says that more care is now bestowed by people on the sources of drinking-water, and each year an increased quantity is submitted for analysis; while, in the present day, all direct connexion of the house-drains with the sewers is avoided, ventilation is better carried out, and the chance of sewer-gas entering houses is considerably lessened.

**THE FORMIDAB OF MERCURY.**—Prof. Zeissl, of the Vienna Hospital, reports that in a trial which he has made of Liebreich's formidab of mercury in fifteen cases of syphilis he has been well satisfied with the results. The pain produced was of shorter duration and less severity than with the sublimate, the regions of the buttocks or the spine being best suited for the injections. In three of the cases salivation was produced. In the obstinate forms of the disease—e.g., psoriasis palmaris—many more injections were required than in the lighter forms; but Prof. Zeissl has never had to make more than twenty in order to disperse the various secondary symptoms.—*Centralblatt für Med. Wiss.*, June 9.

## FROM ABROAD.

### ACTION OF QUININE UPON THE EAR.

At a meeting of the Boston Medical Improvement Society, Dr. Orme Green read a paper on the above subject (*Boston Med. Journal*, March 3), in which he observed that the effect of quinine in inducing tinnitus aurium is so well known that it is apt to be considered as of no consequence and lead to the neglect of an important subject. Cases have come under his observation which have convinced him of the great injury often done; and as these observations agree with the known pathological tendencies of the ear and with the more recent physiological experiments on the action of quinine, he wishes to direct attention to the subject—especially as writers upon *materia medica* say very little about it. It was formerly believed that quinine produced contraction of the bloodvessels and anæmia of the ear; but von Graefe, Hammond, and Roosa have since shown that congestion of the visible vessels of the organ is the result produced. "From the very close relations of the vascular system of these three parts—the *membrana tympani*, the *tympanum*, and the *labyrinth*,—and from the appearance of congestion as the direct result of the administration of ten and fifteen grain doses in the carefully conducted experiments of Roosa, we have strong evidence that the effect of the drug upon the ear is congestive rather than anæmic; but, inasmuch as the amount of congestion visible in the manubrial vessels was slight, and disproportionate to the intensity of the tinnitus, it seemed reasonable to conclude even from these few experiments that the congestion of the deeper cavities was greater than that seen on the periphery, so to speak, of the vascular system; and as the nervous structures within the labyrinth are the undoubted seat of subjective noises, it was probable that the labyrinth was the chief point of congestion." Recent observations of Kirchner (*Berliner Klin. Woch.*, 1882, No. 49) confirm this view, showing that not only congestion, but active inflammation and even hæmorrhage may be produced. Speaking of the results of his experiments on rabbits, cats, and dogs, Kirchner says:—

"From these observations it is certainly evident that quinine and salicylic acid (which produces clinically the same symptoms as quinine) may produce changes in the important parts of the ear which may not only injure but even wholly destroy the hearing. The involvement of the labyrinth in the hyperæmic condition could not exist for any length of time without serious injury to the ultimate fibres of the acusticus. The clinical appearances of deafness produced by quinine point to the same thing: usually pain in the depth of the ear is complained of, as was also observed by Roosa—often intermittent, often very severe; and sometimes otitis externa is seen as a complication. In the examination of trustworthy persons who have declared that their deafness was due to large doses of quinine, I have repeatedly seen a marked opacity of the drum-membrane, a condition which, as a rule, is to be regarded as the residuum of a chronic inflammatory process, and due to thickening of the mucous membrane lining the inner side of the drum-membrane. The symptoms in the labyrinth are also characteristic, and point to an organic change in the ultimate fibres of the acusticus. Just as in syphilis, so in quinine-deafness we find diminution in the perception of a vibrating tuning-fork placed on the bones of the head, and a defective perception of the higher tones. In quinine-deafness we are, then, dealing not alone with a simple irritation, a simple nervous excitement of the organ, which will pass off without leaving injury, but with an inflammatory process, and (possible) permanent pathological changes."

The researches of Toynbee, von Tröltsch, Schwartz, Grüber, Wendt, and others have proved that the mucous membrane of the *tympanum* is especially liable to inflammation; while those of Politzer exhibit most completely the microscopical changes which ensue, showing that the connective tissue is the portion of the structure in which the alterations producing permanent impairment of the functions of the conducting apparatus are most common. "These changes consist in an infiltration of round cells, which become organised with new fibrous connective tissue, by which



the delicate and movable mucous membrane is converted into a hard, stiff, and adherent membrane, liable with time to a sort of cicatricial contraction, and producing immobility of the parts of the conducting apparatus covered with the affected mucous membrane. This connective tissue is subject also to still further alteration, such as calcification and ossification." The labyrinthine structures, being so delicate and lying so deep, have been much less thoroughly examined; but clinical experience shows us the frequent loss or diminution of perception by bone conduction, which there is every reason to regard as due to the extension of the congestion of the tympanum to the labyrinth—showing that a marked and long-continued congestion of the nervous apparatus is liable to produce serious injury. Too much stress, however, must not be laid upon the thickening of the mucous membrane observed by Kirchner in cases of quinine-deafness, as such may be the result of some old inflammatory process. No one as yet has watched a membrana tympani normally translucent become gradually opaque as the result of quinine treatment.

After referring to the analogous affection, quinine-amaurosis, and suggesting that the two affections are probably due to the action on the vaso-motor nerve-centres, Dr. Green goes on to observe that the congestion thus produced explains the fact observed clinically, that quinine may increase any existing inflammation in the tympanum, leading to a greater degree of deafness at the time and to still further tissue-changes. In the view of these facts, and of the constantly recurring experience that patients refer their new aural symptoms, or the aggravation of the old ones, to the quinine given, ought we not, he asks, pay more attention than is usually done to these effects? Of the great value or even absolute necessity of the drug no doubt can be entertained; but there are many cases in which it is given in larger and longer-continued doses than are required—tinnitus aurium being the signal of congestion of the labyrinth having taken place. And even when a case requires the quinine to be persisted in, in spite of the congestion produced, its administration might be suspended for one or more days, converting the continuous congestion into the less dangerous form of an intermittent congestion. Dr. Green thus sums up his paper:—1. Clinical experience the world over is that quinine occasionally produces serious injury to the ears. 2. From our present knowledge, both clinical and experimental, we are justified in asserting that the action of quinine on the ears is to produce congestion of the labyrinth and tympanum, and sometimes distinct inflammation with permanent tissue-changes. 3. That the action of the drug upon the ears should always be considered in prescribing it; and changes in the ears due to existing or previous inflammation constitute a contra-indication to the medicine in large doses or for a long time, except under urgent circumstances. 4. That when large and continuous doses are absolutely necessary, an occasional intermission is desirable, in order to diminish the risk to the ears.

In the discussion which followed, Dr. Fifield observed that he felt alarmed at the enormous doses of quinine and salicylic acid given by men fresh from the schools, as if reduction of abnormal temperature and pulse were the only ends in view.—Dr. H. W. Williams remarked that it seemed an enigma that the ear should be congested while the eye is rendered anæmic from quinine. He has seen this form of blindness only after long courses of large doses, and in these there has been slow recovery.—Dr. Lyman also deprecated the large doses of quinine now given, and he found that abatement of high temperature may be accomplished by giving one large dose (ten to fifteen grains), and repeating it, if required, for several days. He had rarely, if ever, seen this followed by tinnitus. When there is any tendency to congestion, he combines the quinine with bromide of potash. He had seen more disturbance produced by small doses repeated for a long time than by the occasional use of a large dose.—Dr. Hodges said that, apart from its use in intermittent fever, he was not aware that quinine produces any beneficial and well-established effects, while it gives rise to many discomforts and dangers. The transient fall of temperature which is sometimes induced by large doses attracts attention and fixes itself upon the memory; but the numberless cases in which the drug fails are probably more familiarly known to physicians than its successes.—Dr. Edes has been familiar with moderate quinine-deafness, but he believes that permanent deafness is a rare though per-

fectly well recognised accident. Facts of this kind, as well as of amaurosis, are reported in the elaborate work of Briquet—all occurring after large and continuous doses. Briquet refers to physicians who employed quinine on a large scale, and who found that the deafness which ensued always disappeared in a few days; and from inquiries which Dr. Edes has made among New York aurists he arrives at the same conclusion.—Dr. Baker had very often given thirty to thirty-six grains daily for many days, and, although his cases have remained under long observation and often return, he knew of no bad effects that resulted. He had seen deafness and blindness from thirty-eight grains in an hour, but these passed off in a few days.—Dr. Green observed that his paper was meant as a caution against the abuse of the drug. Most of the cases get well, but some do not.

## REVIEWS AND NOTICES OF BOOKS.

*A Manual of Nursing, Medical and Surgical.* By CHARLES J. CULLINGWORTH, M.D., M.R.C.P. Lond., Physician to St. Mary's Hospital, Manchester. With eighteen illustrations. London: J. and A. Churchill. Small 8vo, pp. 172. 1883.

DR. CULLINGWORTH'S little book on Nursing is one of the best and most trustworthy manuals published on the subject with which it deals. It is written in an easy and pleasant style, and, without in any way unduly magnifying the office and position of a nurse, teaches really all that a good practical nurse ought to be acquainted with in order to make her a safe and efficient handmaid to the physician and surgeon. It treats of the arrangement and management of the sick-room, of the management of the patient, of sick-diet, of the administration of medicines, of fomentations, poultices, lotions, irrigation, etc., of baths, and of bandaging. One chapter is devoted to "The Immediate Treatment of Certain Cases of Emergency," as fainting fits, epilepsy, apoplexy, sunstroke, delirium, hæmorrhage, and like cases; and another teaches how to observe and report all important and significant conditions and symptoms. The local treatment of inflammation is briefly described, and the management of abscess; the various modes of cleansing and dressing wounds, and the preparations of the operation-room and the operation-table. Some pages are devoted to the antiseptic method of treatment, so far as concerns the work of the nurse, giving clear and minute descriptions of the various substances employed, and the reasons for their employment. And the last chapter deals with "Disinfection, and the Nursing of Infectious Fevers." In this chapter Dr. Cullingworth speaks of the nature of contagion, and of the differences in the mode of propagation of the infectious fevers. He describes the precautions necessary to prevent the spread of infection, and the modes of disinfection, giving the rules that ought to be observed in all cases. He gives directions also as to how a nurse is to protect and disinfect herself in such cases; and finally dwells, very usefully, on some "special points in the nursing of some of the infectious fevers: as measles and whooping-cough, typhoid, typhus, diphtheria, scarlet fever, and small-pox. The Manual may be strongly recommended to all nurses, amateur or professional.

*On the Treatment of Wounds and Fractures.* Clinical Lectures by SAMPSON GAMGEE, F.R.S.E., Consulting Surgeon to the Queen's Hospital, Birmingham; Foreign Corresponding Member of the Academy of Medicine of Rome, and of the Society of Surgery of Paris; Honorary Member of the Massachusetts Medical Society, and of the Medical Society of Christiania, etc. With forty-four engravings on wood. Second Edition. London: J. and A. Churchill. 1883. Pp. 364.

THIS volume is a consolidated second edition of the author's clinical lectures on the "Treatment of Fractures" (1871), and on the "Treatment of Wounds" (1878). Well-reported histories of cases are always instructive, and the author has made for this work an excellent selection from the cases which have occurred in his practice. The lectures are what, in our opinion, clinical lectures ought to be. The author does not aim at novelty or originality, but, to quote his own words, has chiefly endeavoured "to demonstrate the



identity and continuity of the principles of surgical therapeutics, irrespective of the tissues affected." The cardinal principles of the treatment of surgical injuries—immobility, position, pressure, drainage, and antiseptics—are carefully explained and abundantly illustrated by typical cases. The directions for the manufacture of splints of millboard, gutta-percha, and plaster of Paris for special fractures are very good, and may be consulted with advantage by practitioners as well as by students.

*A Synoptical Guide to the Study of Obstetrics.* Being an Aid to the Student in the Class-room, in Private Study, and in Preparing for Examinations. By ROBERT BARNES, M.D. Lond., Obstetric Physician and Lecturer in Obstetrics to St. George's Hospital. London: Smith, Elder, and Co. 1883. Pp. 122.

It is not often the case that one who has attained the position which Dr. Robert Barnes occupies in our profession and in his own department, can find the time, or has the inclination, to write an *aide-mémoire* for the student; and that Dr. Barnes has so occupied himself, shows the interest which he still takes in the progress of obstetric science, and in the prevalence of sound obstetric practice.

The work itself calls for little detailed comment. Were it not that we learn in the preface that it is a sort of index to a "Systematic Handbook of Obstetrics" shortly to be published, we should have guessed it to be the author's lecture notes. It contains a brief syllabus of the points chiefly to be remembered in relation to the different subjects which are described in obstetric lectures and treatises. It is a book to be read in conjunction with a larger one: not a treatise on midwifery, but a help towards mastering such a treatise. We have no doubt that many will find it useful.

*A Compend of Obstetrics*, especially adapted to the use of Medical Students and Physicians. By HENRY G. LANDIS, A.M., M.D., Professor of Obstetrics and Diseases of Women in Starling College, etc.; author of "How to Use the Forceps," etc. With illustrations. (Test Series, No. 8.) London: Henry Kimpton. 1883. Pp. 107.

THIS little work is commended to us by the name of its author, whose able work on the forceps, containing an excellent account of the mechanism of labour, we reviewed at the time of its appearance. It is what our American friends call a "quiz-book." The information it gives is conveyed in the form of question and answer, after the manner of "Mangnall's Questions" of our childhood's days. It is a small book, and the plan of its construction is not one by which a great amount of material can be compressed into a small space. The instruction given is therefore elementary, but it appears to be sound and accurate so far as it goes.

*The Causation of Sleep.* By JAMES CAPPIE, M.D. Second Edition. Edinburgh: James Thin. 1882. 8vo, pp. 207.

THE general public would probably be surprised to learn that physicians and physiologists have not yet been able to determine the exact nature and sequence of the changes which result in sleep. The phenomena of digestion, of respiration, and circulation have in great measure ceased to be debateable ground, but the intimate changes which take place in the brain during the exercise of memory, during sleep, or during a convulsion, still elude our vigilance. The present work is an attempt to set at rest one of these questions—that relating to sleep,—with what success will appear hereafter. The author starts with the general principle that during the functional activity of a part its blood-supply is increased, and that therefore the brain must have a larger supply of blood in the waking state than during sleep. It follows, therefore, that during sleep there is a diminished amount of blood circulating in the brain, and the question is, what takes its place? As the brain is enclosed in an unyielding case, the extra space must needs be filled up either by cerebro-spinal fluid or by an increase in the amount of blood contained in the veins. The latter is the view adopted by Dr. Cappie. After discussing the circulation in the cranium, and pointing out the relation of the atmospheric pressure to the cranial contents, Dr. Cappie sums up his views as follows:—"The first change is a modi-

fied movement in the molecules in the brain-tissue; the last is compression of the whole organ. From lessened activity of the molecules spring a less active state of the capillary circulation and diminished stress through the cranial cavity. Next we have a change in the balance of the circulation, in producing which the weight of the atmosphere, causing backward pressure in the cerebral veins, is an essential agent. With the altered balance of the circulation there is a change in the balance of active pressure; it is less from within and more on the surface, it is less expansive and more compressing. With a certain amount of compression consciousness is suspended." The keystone of this theory is the altered balance of the circulation within the cranium. According to the author, during sleep the amount of blood in the arteries is greatly diminished, and that in the veins increased—this being especially the case in the pia mater, which forms a soft pad and compresses the cortex of the brain, thus producing insensibility,—but we do not feel quite clear as to the amount of compression thus produced, for we are told elsewhere that the amount of blood circulating in the cranium is practically a constant quantity, and, that being the case, it is difficult to see why the blood should exercise more compression at one time than another. There is no evidence before us that compression of the brain from within is not just as effectual in arresting the cerebral function as compression from without. It might be said that the lessened activity of the molecules of the brain, of which the author speaks as the first change, is the cause of sleep, and the altered balance of the circulation the effect. Even if we admit the correctness of the author's view that the veins of the pia mater are turgid during sleep, still it does not follow that this is the cause of sleep; there is no proof that it is not merely the effect. If the exact causes which lead up to sleep are ever made known, we expect that the medulla oblongata will be found to play a more important part in bringing this about than Dr. Cappie would admit, for he never alludes to it at all. But although we do not agree that the author has proved the reality of his views, we must acknowledge that he has made an honest attempt to throw light upon an obscure point. The ophthalmoscopic drawings of the fundus oculi at the commencement of the book are too diagrammatic to be relied upon as of much value.

#### POWDERED OX-BLOOD IN ARTIFICIAL ALIMENTATION.

—Dr. Guerder, after testifying to the great utility of the artificial feeding by large quantities of powdered meat in phthisis, pursued by Drs. Debove and Dujardin-Beaumetz, observes that the same procedure is indicated in many other affections, such as chlorosis, anæmia, convalescence from severe diseases, organic disease accompanied by anorexia and disgust with food. But he has always found in all the various preparations of this dried meat a slightly nauseous and sickly taste which prevents patients continuing its employment. It therefore occurred to him to try powdered dried blood, which is much cheaper, of higher nutritive value, and stimulates the digestive organs more effectually. He has administered it to fifty-one persons, forty-four of whom have found it so palatable as to be able to continue it for several weeks. In three it produced vomiting, while in four cases of chlorosis it was only digested with difficulty. Its dose must not be too large, a teaspoonful (seven or eight grammes) three times a day sufficing for a child, and from twenty to twenty-five grammes for an adult—from seventy to seventy-five grammes being equivalent to 500 grammes of fresh blood. If there is any difficulty in digesting it a little powder of pepsine may be added. Directions are given for the preparation of the blood (which is a long process), and it may be obtained ready prepared of M. Daimon, pharmacien, 80, Faubourg St. Denis, Paris. Dr. Guerder relates a few cases exemplifying its utility in convalescence and in anæmia and chlorosis. It is also useful in the early stage of phthisis and other organic diseases.—*Bulletin de Thérap.*, May 30.

THE YOUNGEST GRANDMOTHER.—Dr. Stanley, writing to the *Louisville Med. News*, June 9, says:—"I expect I can report the case of the youngest grandmother in this country. Mrs. C. was born in 1854, and married in 1867, a daughter being born ten months afterwards. The daughter married in 1882, and in March of this year I was with her at the birth of her nine-pound boy. The youthful grandmother, not quite twenty-nine years of age, was also present."



## REPORTS OF SOCIETIES.

## ACADEMY OF MEDICINE IN IRELAND.

## SURGICAL SECTION.

At the closing meeting of the Surgical Section in the Albert Hall, Royal College of Surgeons, Mr. J. K. Barton, President, occupied the chair.

The PRESIDENT read a paper on "Excision of the Hip." He pointed out that surgeons are much divided in opinion as to the benefits derived from this operation—some, seeing the results so often unfortunate, holding that amputation of the hip is in extreme cases better than excision; others, including those who have had most experience of the operation, clinging to the belief that in excision we possess the means of saving those cases of hip disease which will not yield to expectant treatment. In two cases he had obtained an encouraging amount of success, a year having elapsed since the first operation, and six months since the second. *Case 1.*—L. M., aged fourteen, a delicate, strumous girl, with sinuses round the diseased hip, from which there was copious suppuration, was evidently sinking from the effects of the disease when the operation was performed in May, 1882. A marked improvement in her general condition followed the operation. She was able to leave hospital in three months for the country, where she has remained since. She is able to walk with crutches, but there are still open sinuses as evidence of the existence of carious bone; but the union between the cut end of the femur and the acetabulum is firm, and capable of bearing the patient's weight without pain. *Case 2.*—M. R., a healthy-looking girl, aged twelve, the subject of recurrent disease in the trochanter major. The hip was ankylosed when she was seven years old, in the semi-flexed position. Disease had lately been set up in the trochanter by a fall. The operation was undertaken to remove the progressive caries of the trochanter, and to rectify the ankylosis, which rendered her a cripple. It was performed in October, 1882, and has been successful in accomplishing both objects, as the girl is now able to walk and the limb is straight, though four inches shorter than the other. The author insisted on the importance, in the after treatment of these cases, of maintaining a free drain from the wound, submitting that the accomplishment of this must be the first care of the surgeon.

Dr. R. McDONNELL said his own experience of excision of the hip-joint was not altogether favourable. At the same time, the operation should not be set aside; he believed it was legitimate in suitable cases.

Mr. STOKES remarked that in the Richmond Hospital their experience of excision of the hip-joint had neither been very great nor very favourable. In one case in which he had performed the operation the result was the reverse of satisfactory; but it was in every respect an unfavourable case. Had he had his own will at the time, he should, on performing the excision and finding the large amount of disease that was present, have proceeded to amputate at the hip-joint; but he was precluded by the express directions of the patient. He mentioned this to show how difficult it was beforehand to form a just estimate of the amount of disease that might be present. In dealing with caries of other articulations this was not altogether the case. He asked the President's opinion with regard to Thomas's splint, which he used in one of the cases. Having tested the splint himself, according to the inventor's directions, in the case alluded to, he was obliged, after a few days, to remove it, owing to the great pain caused by the pressure of the splint against the spine. He substituted Liston's long splint with a weight attached. The President being a warm advocate of antiseptic treatment, Mr. Stokes asked why he abandoned it in favour of the so-called open treatment of wounds.

Mr. BENNETT said the same question struck him as that which Mr. Stokes had just asked, and the answer might be almost anticipated—that the conditions under which the President operated were not those in which the Listerian treatment could be adopted, being cases in which there was already an open suppurating wound existing for some time. But a more important question than that of the immediate detail of treatment was one on which he desired explanation. The difficulty in those cases was to determine the conditions under which the operation was likely to succeed. He heard it laid down in the debate at

the International Medical Congress, that, as a rule, the operation should not be undertaken except under conditions where the alternative was amputation of the hip. He thought amputation should take precedence. He asked the President, however, what he regarded as the indications for the operation—whether it was a mere alternative to amputation of the hip, or whether it should be adopted under such grave conditions.

Mr. CORLEY, referring to the question of age in determining the operation, mentioned the case of a patient, aged thirty-six, in whom all the conditions for a favourable result existed—a limited amount of bone disease, while the operation itself was not attended with considerable difficulties. It was impossible, however, to secure anything like immobility. He did not use the wire apparatus recommended in Sayre's work, but put up the patient in Bryant's double splint, and endeavoured to carry out antiseptic treatment. The difficulty was great, as a large abscess surrounded the joint. But the unfortunate result depended on the complete impossibility of securing anything like rest to the fragments in position. Modern success depended more on securing perfect immobility than on antiseptics, and until some means were had to secure this desideratum the operation must be looked upon as a serious one.

Mr. WHEELER asked what was the condition of the acetabulum? His own experience in five cases was that the operation was favourable to life. In three the results were very favourable; but two still had sinuses. The splint he used was Bryant's, with a posterior splint running up behind on the nates. The treatment he adopted was open dressing, with plenty of drainage. He believed in antiseptic treatment, but not in Listerism. With the observation of Mr. Stokes, that it was more difficult to determine the amount of disease in the hip-joint than in any other, he disagreed. In the knee it was equally difficult. It was a great point that the sinus did not open posteriorly. In those cases that turned out well he made an opening below, and drew the drainage-tube through, to be able to syringe from the top and prevent any collection of matter.

Mr. THOMSON said the discussion showed that the experience of surgeons in and out of Dublin was very disastrous in connexion with the operation of excision of the hip. Even Mr. Barton, who had the largest experience of the operation of any surgeon in Ireland, had only been able to bring forward one case out of nine that he would claim as a success, and in that case the patient was unable to progress without the aid of crutches, and unable to bear the weight of the body. He had done the operation himself in one case which he was looking after for Mr. Stokes during his illness, and in that case, after a long period of illness, the patient gradually sank and died. He thought the great practical point to be decided in the discussion was the proper time at which the operation should be commenced, if it was to be undertaken at all. There was no doubt the operation of excision of the hip-joint was very little more fatal than leaving those cases alone—that is, as regards those that had a fatal result. A considerable proportion recovered. In the medical press he saw that the percentage of fatal cases that were not treated at all was something like forty, while the fatal results from excision numbered something more. So that practically there was very little difference between interfering by excision and leaving the patient alone. He had an opportunity of seeing a case treated by the Listerian method in St. Thomas's Hospital, London. An abscess had formed, and the disease was very rapid in its progress. The case came under the care of Sir William Mac Cormac, who at once determined to excise; and, cutting down upon the part, he found the bone was diseased, but that the disease had not proceeded to such an extent as was usually the case before the operation was undertaken. In that case the wound remained perfectly aseptic throughout. The patient had been operated on six weeks before he (Mr. Thomson) saw the case. The wound was perfectly healed at that time, while the patient was able to get out of bed and stand on both limbs without the aid of a crutch. That was a point which went to prove two things—the great importance of early operation in those cases, if there was to be any hope of success at all; and the great advantage which must always follow the adoption of the true Listerian method.

The PRESIDENT replied. He agreed with Mr. Stokes's experience that Thomas's splint was singularly unsuited for cases of excision, the pressure of the rigid bar down the back



of the hip not being at all comfortable. In the cases in which he used it he had to lay it aside. Thomas's splint was, however, useful for recovering hip disease where the patient could be allowed to move about. Replying to Mr. Stokes's question, he adopted the open treatment, having first tried various other methods, including the Listerian, but he did not find it to answer well. Indeed, the conditions were such as should have enabled him beforehand to say it would not answer well. Why? Because the excisions were only partial ones, unlike the excision of joints where all the diseased portions were removed, as in the elbow or knee, and where the healthy cut parts could be closed against one another. But where there was partial resection, the result was bone remaining in a partly diseased state behind, and the soft parts in a very unhealthy state. Thus there was a large cavity through which there must be the products of inflammatory action discharged. His experience fortified him in saying, what all would agree was reasonable in theory, that free drainage from the wound was the first thing to be gained. He therefore thought the open treatment necessary to gain that desideratum. Having reported one of those cases some years ago, it was remarked on that occasion that the constant syringing with antiseptic solution, chloride of lime, carbolic acid, etc., the constant washing away of the discharge, was in itself antiseptic treatment. While the method of closing wounds in which the flesh might unite by primary union was inapplicable here, yet the great principle of removing putrefactive material remained the same, though carried out in another way. Therefore he was not casting the slightest slur on the antiseptic method, but adopting the suitable way of applying it to cases of partial excision. It appeared from the discussion that they ought to aim at osseous union in excision of the hip. That was not his experience; they should simply aim at fibrous union, as supplying in successful cases all the results they could possibly wish—complete firmness with mobility. For this purpose it was not so necessary that absolute rest of the parts should be maintained, and the apparatus he applied had to be laid aside, and he fell back on the simplest possible method of keeping the limb straight. Sir William Mac Cormac's case was an exceptional one; but ordinary cases of a strumous type, commencing in the trochanter towards the head, involving the joint in the secondary degree, were not suitable for excision in a very early stage, for the simple reason that a great number of them would recover by expectant or ordinary treatment. Therefore the surgeon must wait until such time as the abscess had formed or the disease had entered into what was called the secondary stage. In this case the question might arise whether amputation or excision ought to be preferred. Amputation at the hip-joint was open to this objection, that it was a greater shock to the patient than the operation of excision. No doubt it was difficult to say how far the disease had progressed, but he would not perform that operation when he could by any reasonable section of it gain recovery and a tolerably useful limb. It was better for a child to have one limb some inches shorter than the other, and useful, rather than have none at all. Mr. Corley had asked what age was favourable. He agreed with Mr. Corley that as age advanced the risk increased, but his own cases were all of young children. Replying to Mr. Wheeler's inquiry as to the condition of the acetabulum, in most cases, he said, it was not very bad—there was no necrosis of the bone. The cartilage was destroyed, but the bone itself or the ilium was not extensively diseased. He looked on the femur as more of a difficulty than the acetabulum. Mr. Thomson had taken a gloomier view of the results of excision than was compulsory; for, damaging as the results had been, they were not so gloomy as he had pictured. The young man, for instance, was able to hop on the diseased limb, bend it, abduct it, flex it, and rotate it. That was a rarely successful case. The second was also successful, as there was fibrous union established. The time for operation must be when the case had progressed past recovery from expectant treatment, and before degenerate changes had begun. As pointed out by the Clinical Society in London, the percentage of recoveries was considerably above that of recoveries without operation.

Dr. THEODORE STACK read a paper "On the Replantation and Transplantation of Teeth." This subject, he stated, was first worthily introduced into surgical literature by John Hunter,

in whose museum there is to be seen an immature canine transplanted into the comb of a cock with perfect success. Having fallen into disuse soon after Hunter's time, this method of treatment received a fresh stimulus from the practice at St. Bartholomew's of Mr. Coleman; and more recently Professor Magitot, of Paris, had made a valuable communication on the subject to the International Medical Congress. Replantation may be found a useful therapeutic measure in—first, pulp exposed, or nearly exposed, with carious cavity extending under the gum; secondly, external violence, knocking the teeth out; thirdly, accidental extraction; fourthly, obscure cases of neuralgia referred to sound teeth; fifthly, alveolar abscess, complicated or uncomplicated. It will be undertaken most frequently in cases of alveolar abscess. The primary cause of alveolar abscess is in nearly every case a putrefying pulp. A secondary cause may be a small portion of the tip of the root becoming necrosed, by the abscess, after it has lasted a little while, dissecting off from the part the periodontal membrane. Magitot proposed extraction of the tooth, resection of any necrosed part, and replantation; and claimed a success of 92 per cent. Mr. Finlay Thompson proposed, after resection, to cap the end of the root with gold, and to introduce a gold tube into the root for drainage. This method seems equally elaborate and useless. Mr. Coleman proposed to fill the root antiseptically. This method appeared to fulfil the indications most fully, and some of Mr. Coleman's failures must be attributed to his dipping the tooth in too strong carbolic acid before replacement. Out of a table of some thirty cases made out by Mr. A. W. W. Baker and Dr. Stack from their private and hospital practice, all of which were successful, a large number had been treated by resection of the root, filling the root with creasote and iodoform, and free incision into alveolar abscess. Referring to the liability of these teeth to absorption—a danger mentioned by Tomes, Coleman, and others,—Dr. Stack stated that he believed this danger only applied to teeth which had been so treated when out of the mouth as to cause death of the periodontal membrane, either by too long delay or by the use of some too strong chemical agent. It was not due to rending of the alveolar connexions, for, admittedly, teeth violently knocked out and quickly replanted nearly always succeeded. Nor was it due to placing foreign material in the pulp chambers and canals; for Dr. Stack was proud to say that in cases of teeth pivoted by two of their oldest dental surgeons—Mr. Robert Moore and Mr. Daniel Corbett—it was no uncommon occurrence for the roots to last twenty or thirty years. In the museum of the Dental Hospital of Ireland there was a specimen of a pivot tooth presented by Mr. Corbett which had lasted thirty-seven years. In the allied operation of transplantation when the scion tooth was always perfect, it is still undecided whether the pulp should be exterminated or not. Mr. A. W. Baker, Mr. Abraham, and Dr. Stack were, he believed, the first who had established by actual microscopical examination in the human subject that the pulp chamber in the scion tooth could after replantation again enclose living contents. This was a possible, perhaps a probable, result, but by no means a universal one. Dr. Stack believed that the operation of transplantation was likely to grow in favour, especially in hospital practice, where the patients were unable to pay for good artificial dentures. Dr. Stack said he was much indebted to Mr. Abraham and Dr. Richard Hayes for the assistance they had given himself and Mr. Arthur Baker.

Mr. ABRAHAM read a short treatise on the subject.

Dr. R. McDONNELL said the paper was one of extraordinary interest not only to the dental surgeon, but also to the surgeon occupied in the careful study of the processes engaged in the absorption of bone and diseased tissues. Savory, referring to Gulliver's paper on the absorption of bone, had asked, was dead bone absorbed. He came to the conclusion that, according to Gulliver's experiment, if dead bone was lying in the midst of surrounding tissues it was not absorbed. But his experiments extended only for a short time, while absorption was a very slow process of years. Pressure was of importance. For instance, when allowed to make experiments in this country, an ivory peg put loosely through a bone, and taken out after a few weeks, was just as smooth as when hammered in; but when taken out after being there for months it was deeply eroded, and it was evident that some process was going on. Ollier pointed out that bone, when engaged with a foreign body,



was able to regenerate new bone, or attack structures that came in the neighbourhood of it, and he demonstrated the rapid development of new bone by transplantation into the bone of a chicken. From the cases in question, however, he (Dr. McDonnell) would be most cautious in drawing the conclusion that it was revived pulp. It might be that granulations had sprung up and filled the cavity, that the tooth was acting like a sponge graft, and therefore would be in the happy position of bearing a pulp without any nerve in it. He did not think anyone who had heard the paper could scout the idea of antiseptics.

Mr. WHEELER said he had brought forward a paper in which he had strongly advocated antiseptics, laying down, however, the difference between antiseptic surgery and Listerism. Anything that fell short of the gauze and the spray, as Mac Cormac had stated, was not Listerism. But he believed in drainage, in rest, in cleanliness, what they all aimed at. As to ivory pegs being absorbed, he had seen them five or six times pegged into the tibia. It was not the experience of many surgeons that ivory pegs were absorbed.

#### CLOSING REMARKS.

The PRESIDENT, in closing the meeting, thought they might congratulate themselves on the work of the past session. The papers read showed an amount of preparation that was in the highest degree encouraging, while the remarks made in discussing those papers evidenced knowledge and depth of thought that equally augured well for the future. A suggestion made in the Council might perhaps be carried out next session—to group subjects so as to have two or three papers on the same subject read at the same meeting, and let these be discussed together. That course had been found to work well elsewhere, and to add very much to the interest of the meetings. The exhibition of living specimens during the session had proved a most successful feature. To the General and Sectional Secretaries thanks were due for their admirable arrangements.

**OBSERVATIONS AFTER DECAPITATION.**—Dr. F. Holmgren communicated to the Upsala Medical Society an account of some observations he had made on the occasion of the decapitation of two criminals. Three seconds after the decollation of the first of these the eyes were widely open and the pupils contracted; twenty seconds after, they commenced dilating, the dilatation being completed in about two minutes, after which they remained in a state of medium contraction. Twenty-five seconds after decapitation the eyes turned upwards and to the right. Reflex movements commenced after forty-four seconds in little twitchings of the muscles of the neck, after which violent contraction supervened: the mouth was drawn downwards and to the left, the tongue also seeming deviated to the left. Some seconds later, the mouth, which had been widely open, closed slowly. And then, after some slightly rhythmic movements of the muscles of the face, at one minute and forty-four seconds after the execution, complete repose ensued. From the surface of the section of the neck blood escaped with a hissing sound, and in a jet one metre in length; and thirty-five seconds later there was still an intermittent, jerking discharge of blood. No movement was observed in the body after decapitation. At the second execution Dr. Holmgren was placed so as to observe the eyes during the decapitation. At the blow of the axe there was no winking of the eyelids, and the culprit had kept his eyes wide open the whole time his head was on the block. After the head had fallen the same phenomena were observed as in the first case, the jet of blood extending to 1.33 metre. The author concludes from his observations that sensation disappears instantly, and that decapitation is consequently not a painful operation. —*Rev. Méd.*, May 26.

**A MODERN MIRACLE.**—The *New Orleans Picayune* says that a medical man of New Orleans, who is fond of his little joke, began to catechise a coloured minister, "Why is it that you are not able to do the miracles that the Apostles did? They were protected against all poisons and all kinds of perils. How is it that you are not protected in the same way?" The coloured preacher promptly replied, "Don't know 'bout that, doctor; I spect I is; I've taken a mighty sight of strong medicine from you, and I's alive yet!" —*New York Med. Record*, June 2.

## MEDICAL NEWS.

**UNIVERSITY OF DUBLIN.**—At the Summer Commencements, held on Friday and Saturday, July 29 and 30, the following degrees, among others, were conferred, in the presence of the Senate, in the Examination Hall of Trinity College, by the University Caput, consisting of the Right Hon. J. T. Ball, LL.D., Vice-Chancellor; the Very Rev. the Provost of Trinity College; and the Rev. J. W. Barlow, M.A., Senior Master non-regent, viz.:—

*Baccalauri in Chirurgia.*—Edmundus Franciscus Beveridge, Monckton O'Dell Braddell, Georgius Cowen, Cecil Arturus Digby, Franciscus Jacobus Drury, Fredericus Conway Dwyer, Carolus Joseph Fagan, Carolus Wolfe Hamilton, Thomas Wilfredus Haughton, Hugo Falconer Oldham, Carolus Thomas Poland, Johannes Harrison Scott, Henricus Neville Thompson, Almroth Edvardus Wright.

*Baccalauri in Medicina.*—Edmundus Franciscus Beveridge, Henricus Edmundus Blandford, Carolus Holcroft Blood, Monckton O'Dell Braddell, Johannes Jacobus Cochran, Georgius Cowen, Cecil Arturus Digby, Georgius Magill Dobson, Franciscus Jacobus Drury, Fredericus Conway Dwyer, Carolus Joseph Fagan, Gulielmus Gualterus Fenton, Thomas Wilfredus Haughton, Henricus M'Quade, Hugo Falconer Oldham, Carolus Thomas Poland, Johannes Harrison Scott, Robertus Edvardus Sproule, Henricus Neville Thompson, Almroth Edvardus Wright, Fredericus Johannes Driver (*Cantab. ad eundem gradum*).

*Magistri in Chirurgia.*—Isidore M'Wm. Bourke, Ephraim MacDowell Cosgrave (*stip. cond.*), Jacobus Gloster.

*Doctores in Medicina.*—Isidore M'Wm. Bourke, Robertus Nickle Denning, Fredericus Johannes Driver, Edvardus Fawcett, Johannes Rutherford Kirkpatrick, Samuel Robertus Mason, Travers Robertus Montgomery Smith, Montgomery Albertus Ward, Bertram Coghlan Alan Windle.

*Licentiatu in Medicina.*—Green Jacobus Sullivan.

#### GRADUS HONORIS CAUSA.

*Magister in Arte Obstetricia.*—Georgius Hugo Kidd.

*Magister in Arte Ingeniaria.*—Robertus Crawford.

*Doctores in Utroque Jure.*—Præhonorabilis Johannes Poyntz, Comes Spencer, Eq. Periscel. Prorex Hiberniæ; Præhonorabilis Garnet Joseph, Baro Wolseley, G.C.B.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—The following gentleman was duly admitted Fellow of the College on June 28:—

Watney, Herbert, M.D. Cantab., 1, Wilton-crescent, S.W.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed their Primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 2nd inst., and when eligible will be admitted to the pass examination, viz.:—

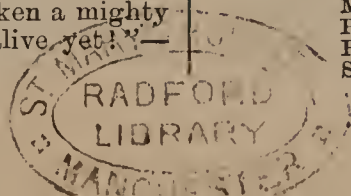
Adami, J. G., student of the University of Cambridge.  
Brown, F. J., of the Manchester School.  
Cameron, C. Ernest, of McGill College.  
Churcher, T. G., of the Edinburgh School.  
Edwards, J. F. H., of the Birmingham School.  
Erulkar, S. A., of the Bombay School.  
Gemmell, J. E., of the Edinburgh School.  
Griswold, Gaspar, of the New York School.  
Pearson, Richard, of St. George's Hospital.  
Purchas, A. C., of the Edinburgh School.  
Shackleton, Henry, of the Dublin School.  
Winter, J. T., of the Manchester School.

Nine candidates were referred for three months and three for six months. The following gentlemen passed their primary examinations on the 3rd inst., viz.:—

Barker, John, student of the Newcastle School.  
Bird, F. D., of the Melbourne School.  
Bowden, E. E., of the Manchester School.  
Briant, A. J., of the Liverpool School.  
Davis, A. E., of the Liverpool School.  
Dudfield, S. R. O., of the Cambridge School.  
Evans, Evan, of St. Mary's Hospital.  
Glasson, C. J., of the Bristol School.  
Greig, D. McB., of University College Hospital.  
Hay, R. M., of the Newcastle School.  
Martin, C. L., of the Liverpool School.  
Mirza, J. F., of the Bombay School.  
Oakley, W. D., of M'Gill College.  
Sumner, Benjamin, of the Liverpool School.

Ten candidates were referred for three months. The following gentlemen passed on the 4th inst., viz.:—

Baxter, C. E., student of the Sheffield School.  
Blackburn, Herbert, of the Manchester School.  
Burns, R. J., of the Newcastle School.  
Clayton, W. K., of the Leeds School.  
Collimore, J. H., Guy's Hospital.  
Corbett, H. H., of the Manchester School.  
Crickitt, H. H., of St. George's Hospital.  
Heaton, T. S., of the Manchester School.  
Jeeves, John, of the Sheffield School.  
Laing, J. G., of the Liverpool School.  
Meldrum, P. G., of the Toronto School.  
Paul, G. W. F., of University College Hospital.  
Richards, Thomas, of the Bristol School.  
Simpson, B. C., of the Newcastle School.





Nine candidates were referred for three months and two for six months.

**Primary Examinations.**—At the Anatomical and Physiological Examination for the diploma of Membership of the Royal College of Surgeons on the 29th ult., when 222 candidates presented themselves, the following were the questions on Anatomy submitted to them, when they were required to answer four (and not more than that number) of the questions, from one to three o'clock p.m., viz.:—1. Enumerate in their relative position the muscles attached to the temporal bone; give their nerve-supply. 2. Describe the cartilages of the larynx. 3. Mention in their relative position the structures exposed upon removal of the pectoralis major muscle. 4. Describe the diaphragm: its attachments, relations on both surfaces, structure, and openings. 5. Describe, in the order in which they occur, the anastomoses of the arteries on the walls of the alimentary canal from the cardiac orifice of the stomach to the anus. 6. Describe the fascia lata. The following were the questions on Physiology, to be answered from four to six o'clock p.m. on the same day, viz.:—1. Describe the act of vomiting. By what nervous channels may this act be excited? 2. What varieties of cartilage are found in the adult? Where are they found? Describe their structure and functions. 3. What are the more important constituents of urine? State and explain how they are affected by starvation, digestion, exercise, and temperature. 4. Describe the structure of the olfactory mucous membrane. Explain the manner in which the sense of smell is exercised. 5. State the functions of the pneumogastric nerve. Give the experimental and other evidence on which your statements rest. 6. What is the chemical constitution of the neutral fats? How are they prepared for absorption in the alimentary canal?—There was no oral examination on Thursday, owing to the annual election of Fellows into the Council of the College.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 28:—

Brown, William Henry, Parkhurst-road, Bexley, Kent.  
Cox, John Henry, Doddington-grove, Kennington.  
Hill, Thomas James Cooke, Bonython, Grampond, Cornwall.  
Fletcher, Wilfred W. Ernest, Malvern-cottages, Thornhill-road, N. Maling, William Haygarth, Sunderland.  
Mills, Robert, Edward-street, Hampstead-road, N.W.  
Scott, Bernard Charles, Derwent-road, Anerley.  
Strugnell, Walter Thomas, Portsdown-road, Maida-vale, W.

#### APPOINTMENTS.

\* \* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

**HEWETSON, H. BENDELACK, M.R.C.S.**—Honorary Surgeon to the Ophthalmic and Aural Department of the Leeds General Infirmary, in the place of the late Mr. Robert Parr Oglesby, M.R.C.S.

#### DEATHS.

**CUISS, FRANCIS P., M.R.C.S.**, of St. Servan, France, on June 30, aged 56.  
**SCRIVEN, SAMUEL SWAIN, M.D.**, on June 28, at 11, Frederick-place, Weymouth, aged 80.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**BOROUGH OF SHEFFIELD.**—Resident Medical Officer. (*For particulars see Advertisement.*)

**BOURNEMOUTH COTTAGE HOSPITAL AND DISPENSARY.**—Resident Medical Officer and Secretary. Salary £120 per annum, with rooms, attendance, coals, and gas. Candidates must hold both a medical and surgical diploma. Applications, with testimonials, to be addressed to the Secretary (from whom further particulars may be obtained), on or before July 10.

**HOSPITAL FOR CONSUMPTION, BROMPTON, S.W.**—Assistant-Physician. Candidates must be Doctors or Bachelors of Medicine and Fellows or Members of the College of Physicians. Applications and testimonials to be sent, on or before the 11th inst., to Henry Dobbin, Secretary.

**JOINT COUNTIES ASYLUM, CARMARTHEN.**—Junior Assistant Medical Officer. Salary to begin at £100 per annum, with board and attendance. Applications, with testimonials, to be forwarded to Dr. Hearder, on or before July 7.

**TORBAY HOSPITAL AND PROVIDENT DISPENSARY, TORQUAY.**—Junior House-Surgeon and Dispenser. Candidates, qualified in medicine and surgery, and registered, must be single and without the care of a family. Board, lodging, and attendance, together with fees from such pupils in dispensing as the Board may approve. Testimonials to the Hon. Secretary, W. H. Kitson, Esq., Hemsworth, Torquay, not later than July 16.

**STOCKTON-UPON-TEES HOSPITAL AND DISPENSARY.**—House-Surgeon (non-resident). Salary £200 per annum. Candidates must be doubly qualified. Applications, in writing, stating age, with recent testimonials (or copies), to be sent to the Secretary, not later than July 14.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

**Crediton Union.**—Mr. John Deans has resigned the Coldridge District: area 5160; population 651; salary £16 per annum.

**Stoke Damerel Parish.**—Mr. F. E. Row has resigned the Clowance and St. John's District: population 10,654; salary £60 per annum.

#### APPOINTMENTS.

**Bridgwater Union.**—Thomas Unicume, M.R.C.S. Eng., L.R.C.P. Lond., to the Middlezoy District.

**Depwade Union.**—Job N. L. Paulley, M.R.C.S. Eng., L.R.C.P. Edin., to the Fourth District.

**East Preston Union.**—Francis C. Bryan, M.R.C.S. Eng., L.S.A., to the Third District and the Workhouse.

**Frome Union.**—William H. Wood, M.R.C.S. Eng., L.S.A., to the Nunney District.

**Huddersfield Union.**—Thomas L. Laxton, M.R.C.S. Eng., L.R.C.P. Edin., to the Fulstone District.

**Machynlleth Union.**—Thomas Davies, L.R.C.P. Edin., M.R.C.S. Eng., to the Machynlleth District.

**EFFECTS OF NAPELLINE.**—From an experimental and clinical examination of the effects of napelline, which is a soluble amorphous alkaloid of the root of aconite, Dr. Laborde concludes—1. That it possesses physiological properties which, while approaching in their fundamental characteristics to those of crystallised aconitia, sensibly differ from this, both in their much less activity, and by hypnotic and somniferous effects which do not belong to it. 2. That this new product is consequently more manageable in practice, without giving rise to alarming accidents. 3. It may therefore be employed in subcutaneous injections in doses of one, two, three, or four centigrammes, whether given at once, in divided doses, or at very short intervals, producing real therapeutical effects without causing any appreciable physiological or toxical effects. 4. Its effects are chiefly manifested in local painful affections—especially in neuralgias—and in excessive excitability of the nervous system, with persistent insomnia.—*Jour. de Thérap.*, June 10.

#### APPOINTMENTS FOR THE WEEK.

##### July 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

##### 9. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

##### 10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND**, 4 p.m. Dr. Garson, "On the Comparative Anatomy of the Integumentary, Respiratory, and Circulatory Systems of the Vertebrata."

##### 11. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

##### 12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m. **PARKES MUSEUM OF HYGIENE**, 8 p.m. Dr. Charles Henry Ralfe, "On the Hygiene of Schools."

##### 13. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



## VITAL STATISTICS OF LONDON.

Week ending Saturday, June 30, 1883.

## RTHS.

Births of Boys, 1263; Girls, 1326; Total, 2589.

Corrected weekly average in the 10 years 1873-82, 2540.0.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	753	679	1432
Weekly average of the ten years 1873-82, ...	751.8	685.1	1436.9
corrected to increased population ...			
Deaths of people aged 80 and upwards ...	...	...	41

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	6	3	4	3	...	3	1	13
North ...	905947	4	15	2	4	5	...	4	...	18
Central ...	282238	...	9	1	4	3	...	...	...	7
East ...	692738	...	23	9	1	4	...	3	1	19
South ...	1265927	...	23	14	2	14	...	2	...	15
Total ...	3816483	4	76	29	15	29	...	12	2	72

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.741 in.
Mean temperature ...	...	...	...	...	...	63.2°
Highest point of thermometer ...	...	...	...	...	...	84.8°
Lowest point of thermometer ...	...	...	...	...	...	49.3°
Mean dew-point temperature ...	...	...	...	...	...	57.0°
General direction of wind ...	...	...	...	...	...	S.S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.86 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 30, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending June 30.	Deaths Registered during the week ending June 30.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2583	1432	18.9	84.8	49.3	63.2	17.33	0.86	2.18
Brighton ...	111262	73	29	13.6	78.0	52.0	62.0	16.67	0.40	1.02
Portsmouth ...	131478	83	34	13.5	...	...	...	...	...	...
Norwich ...	89612	54	26	15.1	...	...	...	...	...	...
Plymouth ...	74977	48	24	16.7	67.7	51.5	56.5	13.61	1.93	4.90
Bristol ...	212779	141	58	14.2	73.8	49.2	58.7	14.83	1.15	2.92
Wolverhampton ...	77557	41	32	21.5	74.2	42.7	58.4	14.66	1.34	3.40
Birmingham ...	414846	300	173	21.8	...	...	...	...	...	...
Leicester ...	129483	77	40	16.1	80.2	48.0	63.2	17.33	1.76	4.47
Nottingham ...	199349	150	66	17.3	87.7	45.0	62.7	17.06	1.92	4.88
Derby ...	85574	48	29	17.7	...	...	...	...	...	...
Birkenhead ...	88700	56	23	13.5	...	...	...	...	...	...
Liverpool ...	566753	359	251	23.1	74.9	50.3	58.6	14.78	1.31	3.33
Bolton ...	107862	78	35	18.4	74.2	46.1	57.6	14.28	2.96	7.52
Manchester ...	339252	240	176	27.1	...	...	...	...	...	...
Salford ...	180465	131	76	20.8	...	...	...	...	...	...
Oldham ...	119071	65	39	17.1	...	...	...	...	...	...
Blackburn ...	103460	87	47	22.6	...	...	...	...	...	...
Preston ...	98564	71	36	19.1	...	...	...	...	...	...
Huddersfield ...	84701	37	39	24.0	...	...	...	...	...	...
Halifax ...	75591	49	27	18.6	...	...	...	...	...	...
Bradford ...	204807	117	67	17.1	75.0	49.7	60.1	15.62	2.58	6.55
Leeds ...	321611	193	109	17.7	76.0	50.0	61.3	16.28	2.58	6.55
Sheffield ...	295497	187	116	20.5	75.0	46.5	60.5	15.84	1.47	3.73
Hull ...	176296	116	52	15.4	79.0	32.0	61.2	16.22	2.27	5.77
Sunderland ...	121117	103	47	20.2	...	...	...	...	...	...
Newcastle ...	149464	92	76	26.5	...	...	...	...	...	...
Cardiff ...	90033	72	29	16.8	...	...	...	...	...	...
For 28 towns ...	5620975	5657	3191	19.3	87.7	32.0	60.3	15.73	1.73	4.39
Edinburgh ...	235946	142	91	20.1	66.6	48.5	56.8	13.78	1.36	3.45
Glasgow ...	515589	368	280	28.3	72.0	49.0	58.3	14.61	2.60	4.06
Dublin ...	349385	209	175	26.1	70.0	44.1	56.5	13.61	0.66	1.68

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.74 in. The lowest reading was 29.58 in. on Tuesday morning, and the highest 29.90 in. at the end of the week.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*Erratum.*—In the pass list of candidates for the degrees of M.B. and B.Ch. in the University of Dublin (*Medical Times and Gazette*, June 30, page 743), for "Alworth E. Wright" read "Almroth Edward Wright." Also in the paragraph headed "University of Dublin—School of Physic in Ireland," on page 733, the words "Mr. Alworth Wright" should read "Mr. Almroth Wright."

## LOCUM TENENS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to the letter of "Medicus" in your issue of 30th ult., I beg to inform him that there is no medical agency in Ireland through which locum tenens, assistants, etc., could be secured; but I shall be glad to furnish him with the names, etc., of several highly qualified gentlemen, who, while awaiting appointments, are constantly reading in the library of this College.

I am, &amp;c.,

G. F. BLAKE, Assistant-Librarian R.C.S.

Royal College of Surgeons, Dublin, July 4.

*An Old Member.*—The following is the form of bequest to which you refer, viz.:—"I bequeath to the Royal College of Surgeons of England the sum of £— (free of legacy duty), and I direct the same to be paid out of such part of my personal estate as is by law applicable to that purpose." You can add—"To be expended for Museum additions only."

*Cheapened Fish.*—The recent agitation and general discussion of the fish question is bearing a practical result. A few days ago might be witnessed in the shops of retail fishmongers of the metropolis—chiefly in the southern district—prime salmon offered for sale at tenpence a pound. Mackerel of good size were selling at twopence each, and other fish at equally reduced prices. The necessity of reduction in price in fish trade-circles, it is stated, is being tardily recognised both by the wholesale and the retail vendors.

*Cosmo.*—No fewer than 14,200 persons in the London milk trade are registered under the law. Previous to the institution of registration, the whole of the London cowsheds and other premises connected with the milk trade were, with few exceptions, unsuitable in construction and in sanitary arrangements, which have been entirely superseded by the enforcing the legal obligations now required.

*Medical Portraits.*—We have received photographic portraits of Sir T. Spencer Wells, Sir James Paget, Professor Owen, Mr. Holden, and Mr. Marshall, from Mr. G. Jerrard, of Regent-street. They are not only admirable likenesses of the distinguished originals, but excellent as works of photographic skill.

*Bakehouses.*—Lord Dalhousie's Bill, introduced into the House of Lords, deals with a pressing evil. The Bill takes the form of an amendment of the Factories and Workshops Acts, and provides that no room or place shall, in future, be occupied as a bakery unless at least one-half of its height be above the level of the street or the adjoining ground; that no water-closet, earth-closet, or ashpit shall be within or communicate directly with a bakehouse; that any cistern for supplying water to a bakehouse shall be separate and distinct from any cistern for supplying water to a closet; and that no drain or pipe for carrying off sewage matter shall have an opening within the bakehouse. The Bill contains also provisions to facilitate its enforcement. Penalties are proposed for letting or occupying an underground bakery and for contravening the other regulations, and especially for using as a bakehouse any place which is in such a state as to be, on sanitary grounds, unfit for use or occupation for that purpose.

*Boards of Guardians and Repeated Vaccination Prosecutions.*—With respect to a resolution of the Guardians of St. George's, Hanover-square, as to repeated prosecutions for neglect to comply with the provisions of the Vaccination Act, the Local Government Board informs the Guardians that the principles on which the Board act are contained in a letter of theirs, dated in 1875, to the effect that it is in the discretion of the Guardians to take proceedings more than once in the case of people who fail to comply with the Vaccination Act.

*A "Slink Butcher": The Law Vindicated.*—The Brighton magistrates have threatened on several occasions to commit to prison, without the option of a fine, persons exposing for sale unwholesome meat. They have just sentenced a butcher, living in the country, but having a stall in the Brighton Market, on which the carcass of a pig affected with disease was found, to a fortnight's imprisonment, without the alternative of a fine. The defendant pleaded that he was not aware that the meat was bad, but, as the magistrate remarked, it was a professional butcher's duty to know the state of the meat in which he dealt. The poor are the "slink butchers'" customers. Cheap meat attracts them, and they think inferior quality meat is better than "no meat at all."

*Dr. Fogarty.*—You will find an interesting "Discourse on the Life and Works of Dr. Robert James Graves, F.R.S.," from the pen of his friend Dr. Stokes, Regius Professor of Physic in the University of Dublin, in which the anecdote you refer to is given. It appeared in the *Medical Times and Gazette*, vol. xxix., January 7, 1854, page 1.



*Dr. Miller.*—In the *Gentlemen's Magazine* for October, 1829, page 292, are some observations on the Chelsea Gardens, signed Robert Sweet, who dates from Pomona Place. Mr. Field's "Historical Account of the Gardens of the Apothecaries' Society at Chelsea" was published in 1820.

*Recent Events on the West Coast of South America.*—An account published by Admiral Aurelio Garcia y Garcia, late General Secretary to the Peruvian Government, though probably in its entirety somewhat *ex parte*, may be worthy of passing notice to our readers. According to the Admiral, the conquerors invaded even the literary repositories of the capital, and despoiled them of their precious contents. The National Library, the best in South America, containing 300,000 volumes, and that of the University of St. Mark, in its different branches of jurisprudence, medicine, political economy, mineralogy, chemistry, etc., have all been pillaged to such an extent that not a single book remains, while the book-cases have been broken up for packing-cases. The victors also took and shipped off to Chili the instruments belonging to the astronomical observatory; the machinery, laboratories, and apparatus of the Medical College, and those for teaching arts and industries; and in the course of the contingencies of the campaign the buildings of the University, the Library, and the Colleges were used as military barracks and stables.

*Metropolitan Drinking Fountain and Cattle Trough Association.*—There have been erected during the past year in various districts forty-eight new troughs for animals, and forty new fountains for human beings, making a total in London of 520 fountains and 527 troughs, the value of which may be taken at not less than £60,000. The total expenditure of the year amounted to £7087, leaving a small balance in hand.

*The Pauper's "Consoling Whiff."*—The Lambeth Board of Guardians have lately discussed the question of the paupers smoking tobacco. It appears the Visiting Committee observed on a recent visit to the workhouse that several of the inmates were smoking. The Chairman expressed the opinion that unless the paupers were invalids tobacco-smoking was a direct infraction of the Act of Parliament, which forbids paupers to smoke unless by direction of the medical officer. A guardian thereupon moved that tobacco be altogether prohibited, except under medical orders. Ultimately the Board, by a majority of nine to five, decided that tobacco be allowed to inmates over sixty years of age out of doors. That the paupers under the specified age should be deprived of the comfort of an occasional pipe seems a somewhat arbitrary restriction.

*Mr. Jenkins.*—There are 1186 Fellows of the Royal College of Surgeons, of which number 621 obtained the distinction by examination.

*The Kyrle Society.*—Miss F. R. Wilkinson, a lady student in the landscape division of the Crystal Palace Company's School, has just been appointed a member of the Council of this Society, with a view to her specially advising in matters connected with the laying-out and improvement of churchyards, gardens, squares, etc.

*A Working Men's Social Club, Stalybridge.*—This Club (which has been before noticed in these pages) has obtained some notoriety. The "steward" has been summoned for selling liquor without a licence. There was no business done on the premises during six days of the week, but its doors were opened on Sundays, when licensed houses were closed, and a thriving business was done at these times. The magistrates held the offence proved, and fined the defendant 40s., who they thought only kept a "colourable club," the object being to evade the law; and they refused to grant an appeal.

*Potted Meat.*—A dealer in potted meat at Bradford has been committed to prison for two months, for preparing for food thirty-six pounds of horseflesh. He purchased a quantity of cat's meat at a penny per pound, and an inspector found it stewing in a pan with a few pounds of pigs' heads.

*An Official Reprimand.*—A letter was read at a recent meeting of the Paddington Board of Guardians from the Local Government Board with reference to the unsatisfactory nature of the returns made from time to time by the vaccination officer of that parish. The Board observed that the guardians attributed the arrears shown in these returns to the frequent migrations of the artisans and poorer classes in the parish, and to those giving, as the guardians believed, false addresses to the registrar with intent to evade the Vaccination Laws. They, however, desired to state that in other districts of the metropolis and in other large towns in England, where the circumstances of the population were not more favourable to the enforcement of vaccination than those of Paddington, the Board's experience showed them that difficulties like those referred to by the Guardians of Paddington could to a very large extent be overcome. The Board could not but think that the defective administration of the Vaccination Acts in Paddington was chiefly due to the imperfect manner in which the duties of the vaccination officer had been carried out. After some discussion the matter was referred to the Dispensary and Vaccination Committee to report on the subject.

*Mr. Williams.*—The annual election of the President of the Royal College of Surgeons will take place next Thursday, the 12th inst., when no doubt the senior Vice-President will be installed. A few years ago there was an exception to this rule, when the senior Vice-President was passed over—in favour, we think, of Sir W. Fergusson.

*The National Health Society's Exhibition.*—This exhibition, after a very successful run, has closed. The lectures, given sometimes twice daily, have been well attended. The MSS. of most of the lectures are in the hands of the Society, and are to be printed for distribution. An arrangement is nearly completed by which the Society will supervise a similar exhibition to be opened in Manchester about August.

*Hampstead Hospital Case.*—The Hampstead Vestry have received a number of letters approving of the Vestry's protest against the further expenditure of the ratepayers' money by the Metropolitan Asylums Board in litigation on this case. Lord George Hamilton, M.P., writes that he thoroughly agrees with the Vestry's protest; and Mr. O. E. Coope, M.P., declares it is "perfectly outrageous that the Metropolitan Asylums Board seek to impose further expenditure on the long-suffering ratepayers, the case having been so well threshed out in Parliament and in the courts of law."

*The Commons Preservation Society.*—This Society has done so much in the preservation of public land from spoliation, that it deserves the generous pecuniary aid for which it is now making an urgent appeal. The need of open spaces for recreation purposes can be at once realised, when it is known that in our London School Board 82 per cent. of the children belong to families which live in a single room, and that in others of the Board Schools the proportion of children from such families is over 50 per cent. The Society has rendered its services to maintain the prescriptive privileges for open-air recreation of land in many parts of the kingdom, and is at all times ready to advise and assist local efforts in resisting proposals to enclose public land.

*A New Malady.*—It is stated that the "lawn-tennis elbow" is the latest malady the doctors have found out.

*Hydraulic Street Service.*—The enterprise, for which Parliamentary powers were obtained last session, to supply some of the principal streets in London with hydraulic service for business and household purposes, has been so well carried forward, that we understand the opening of the service is likely to take place in August.

*The Sewerage of Brighton.*—The Borough Surveyor has reported to the Works Committee of the Town Council with reference to the recommendations of Sir Joseph Bazalgette as to the sewerage of the borough, that the recommendations, so far as they relate to matters under the control of the Town Council, have been carried out, and that some other alterations to the sewers in points of detail have also been effected. A town councillor has given notice that he will move—"That the Sewers Board be required to inform the Town Council whether they have carried out any, and if so, which, of the recommendations contained in the report of Sir Joseph Bazalgette relating to matters under their control; and whether the Board propose to take any measures with respect to such of those recommendations as have not yet been acted upon."

*Preponderance in Sexes.*—According to Mr. Gosselin, Secretary to the British Embassy, Berlin, in an official report he shows that London, in comparison with other cities, stands pre-eminent in the preponderance of females, the proportion being as 113.7 to 100. On the other hand, in Paris, in 1876, there were only 88.5 females to 100 males, in St. Petersburg (1881) 80.8, and in Rome (same year) 79.5.

#### COMMUNICATIONS have been received from—

THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Dr. J. W. BARRETT, Melbourne; Dr. LEONARD SEDGWICK, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. BRAIDWOOD, Birkenhead; THE SECRETARY OF THE NATIVE GUANO COMPANY, London; THE SECRETARY OF THE CHELSEA HOSPITAL, London; Mr. T. M. STONE, Wimbledon; Dr. CHARLES WEST, Nice; THE HONORARY SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. G. F. BLAKE, Dublin.

#### BOOKS, ETC., RECEIVED—

The Life and Work of St. Paul, part 18—Forty-fourth Annual Report of the Registrar-General of Births, etc., in England—Fish, How Caught, etc.—The Electro-Magnet, by Simeon Snell—Vichy, by Prosser James, M.D.—The "Blood Accusation," its Origin and Occurrence in the Middle Ages—The Cultivation and Life-History of the Ringworm Fungus, by Malcolm Morris, F.R.C.S. Ed., and G. C. Henderson, M.D.—Report on the Health of Liverpool during 1882, by J. Stopford Taylor, M.D.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Ophthalmic Review—Revue Mensuelle de Laryngologie, etc.—Archives Générales de Médecine—Monthly Homœopathic Review, July—Times of India—Indian Medical Gazette—Edinburgh Medical Journal, July—Veterinarian, July—Medical Temperance Journal, July—Morningside Mirror—Bristol Medico-Chirurgical Journal, No. 1, July—Glasgow Medical Journal, July—Birmingham Medical Review, July—Philadelphia Medical Times—Practitioner, July—L'Impartialité Médicale.



## TWO

## CLINICAL LECTURES ON URETHROTOMY.

By T. HOLMES, F.R.C.S.

## LECTURE II.—INTERNAL URETHROTOMY.

I KNOW hardly any subject in surgery on which the doctrines and practice of different schools varies more than internal urethrotomy. In France it seems of daily occurrence; some English surgeons speak of hundreds of cases in their own practice. At this hospital (St. George's) it is the rarest possible operation. The case I speak of at present is only the second in which I can remember to have performed it myself, and I cannot recall any instance which I have seen in the practice of my colleagues. In cases where we cannot pass an instrument, we regard the attempt to incise the stricture from before backwards as more dangerous and uncertain than perineal section; while, in cases where an instrument can be passed, we generally prefer the operation by rupture or forced dilatation, which is called Holt's or Perrève's operation.

But there is one exception to the latter rule—at least, in my opinion,—I mean in the case of traumatic stricture, of which the following is a very striking example. The patient, David R., aged forty-six, about two years ago suffered rupture of the urethra (partial or complete), and has still the scar of an incision in the middle line of the perinæum. If we can trust his history, it seems that this incision was not made till about a week after the accident. During the interval the urine had been drawn off by the aspirator. Then the incision in the perinæum was made, but it does not seem that any instrument was ever tied into the bladder. He remained under treatment for two months in a country hospital, and then was discharged, able to pass water freely. Three months afterwards, he was on one occasion troubled with retention; but a catheter was easily passed, and he had no further treatment till a short time before his application here, when increasing dysuria compelled him to apply again at the same hospital for treatment, but now no instrument could be passed.

On his admission here, however (May 12), a No. 1 silver catheter was got into the bladder, though with difficulty and with much pain to the patient. This instrument was now passed daily. Attempts to pass a flexible French catheter or a gum catheter failed. With still greater difficulty a No. 2 silver catheter was passed, and it was tied in; but the pain was intolerable, and the patient was obliged to pull it out again after a few hours. All this time he was making water with great difficulty, and the urine dribbled away a good deal. The stricture, though very tight, seemed of no great extent, for after surmounting the obstacle the catheter went at once into the bladder.

It was now clear that the patient's sufferings could only be relieved by rupturing or dividing the stricture, and all that remained was to select the method of procedure. Three courses were open—to perform Syme's operation, to rupture the stricture after Mr. Holt's method, or to perform internal urethrotomy. The first operation, though it was at one time freely employed, has now, I think, almost ceased to be practised. The great authority of Mr. Syme recommended it to his pupils, and through them to others. But the other two methods, more recently introduced, are so much milder and easier, that it is only in very exceptional cases that one hears of Syme's method being followed, those being, I believe, mainly such cases of obstinate non-dilatable stricture as are complicated with much thickening and numerous old sinuses in the perinæum. In such cases it is thought that the free division of the soft parts is advantageous. Holt's method is more frequently used, but my own experience of it is not very favourable in traumatic stricture. I have seen rapid recurrence in such a case, with increased obstinacy and apparently closer cicatrization.

I decided, therefore, in this case to perform internal urethrotomy, and I must say that the result not only equalled, but surpassed, my expectations. The operation was done on June 1. The instrument that I used was

Trélat's, which is a modification of Civiale's urethrotome. You will see that it consists, like Syme's staff, of two parts—a terminal more slender portion about the size of a No. 1 catheter, and a stouter part joining the other at a shoulder or projection. When the slender part is passed through the constriction, the projection is of course stopped by the mouth of the stricture. Pressure on a spring in the handle then causes a knife-blade to start out of the slender part of the stem, and this knife-blade is jointed so as to assume an angular form. The size of the angle (*i.e.*, the depth of the incision) is regulated by a series of notches, into which the pressure on the spring causes the stem of the concealed blade to fit; and when the last notch is selected, the projection of the knife-blade will measure about a quarter of an inch. I thought it better in this case to make as deep an incision as possible, so as more certainly to divide the whole depth of the cicatrix. The instrument being passed as far as it would go, the knife-blade was protruded, and lay, of course, on the vesical side of the stricture—the position of the instrument directing it towards the floor of the urethra. It was then drawn outwards till there was a complete cessation of all resistance, and I was confident that the stricture had been entirely divided. The blade was then returned into its sheath, and the urethrotome removed. There was only slight bleeding. A No. 12 gum catheter was then passed without any difficulty, and tied in, an india-rubber tube being adapted to it, and the water allowed to flow constantly, so as to avoid any risk of its percolating alongside the catheter and getting into the wound. No symptoms whatever followed the operation—no bleeding, no rise of temperature, and only slight pain in passing water for a few days after the withdrawal of the catheter, which was left in for four days. A No. 10 or No. 12 silver catheter was then passed daily without the slightest trouble or feeling of resistance; but the passage of a gum catheter was found impossible, at least without anæsthesia, on account of the pain it caused. He was accordingly provided with a metal bougie which he could pass for himself with ease, and recommended to pass it every few days. He was discharged on June 30.

A few points only require further notice. How far the operation may be a safe and trustworthy one, we have, as I have previously hinted, far too limited an experience of our own to enable us to judge. Sir H. Thompson, who uses it freely, speaks very favourably of it. He even goes so far as to say that there is "absolutely no danger" (a) in it. But as to its definite results, his statement is wisely cautious. He says that it gives more lasting results than any other operation; and warmly recommends it in cases where the stricture has recurred after all other known forms of treatment; but he does not claim for it the power of removing organic contraction—in fact, he says (and truly, as far as our present experience goes) that such a result is impossible. You are probably aware that some surgeons have claimed for internal urethrotomy the power of conferring an immunity from recurrence of stricture if only the urethra be dilated to what they consider its normal calibre; but I think I am right in saying that this claim has not as yet been admitted by the surgical profession.

You will see, however, by perusing Sir H. Thompson's Lectures, which I strongly recommend you to do, that he uses this operation in cases where we should perform rupture of the stricture. What the proportion of relapses may have been in his practice, he has not had the opportunity of ascertaining—in fact, it is well-nigh impossible to do so in hospital or even in private practice; but he speaks of having had occasion to repeat it, and even to perform it occasionally for the third time. In cases of traumatic origin the recurrence of the stricture is, of course, even more probable, and this made me particular in giving this man a full-sized instrument and instructing him to use it at intervals during the rest of his life.

The after-treatment which I pursued is in principle the same as Sir H. Thompson recommends; only that I kept the catheter tied in somewhat longer, and left it open. The latter is, I think, a useful precaution against the percolation of urine by the side of the instrument into the wound.

The perfect success of this little operation will, no doubt, encourage me to make more extensive trial of it in suitable cases.

(a) "Clinical Lectures on Diseases of the Urinary Organs." Sixth edition, page 42.



## THE HARVEIAN ORATION.(a)

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS,

Wednesday, June 27, 1883.

By S. O. HABERSHON, M.D., F.R.C.P.,

Late Senior Physician to, and Lecturer on Medicine at, Guy's Hospital.

MR. PRESIDENT AND GENTLEMEN,—When I received the request that I would, during the present year, deliver the Oration which is associated with the name of the illustrious Harvey, I felt great distrust in my own capabilities of rightly performing the duty allotted to me; and that feeling has become more intense as the work has gradually opened before me. I must ask your indulgence whilst I seek to fulfil the object of Harvey in establishing this annual oration—namely, to commemorate those who have shown themselves benefactors to the College, and to exhort the members to search out and study the secrets of nature by way of experiment.

Harvey was a lover of scientific truth, and he sought to advance science by observation and by direct experiment. Like others who had preceded, and still more those who have followed in the same pursuit, the mind not only became absorbed but enraptured in the work; and as any fragment of truth was unfolded, the desire to discover more became intensified. The eye was not satisfied by seeing, the intellectual thirst could not be quenched nor the hunger assuaged; and such is always the character of true scientific research. There is a dignity in science, and the mind that seeks to find out its mysteries is ennobled in the search; it expands with the effort, even although one branch of science alone be studied, and one line of thought be pursued. There is a reward even in the mental exercise, for it gives intellectual strength and constant pleasurable excitement. Each truth really gained is a standpoint for further advance. An Alpine traveller experiences intense satisfaction when the summit of his mountain climb is attained—when, after hours of labour, and it may be of danger and fatigue, he feels that his object is reached, not to speak of the wonderful beauties then unfolded before him; but his delight is not to be compared with the joy of the philosopher when the discovery of some new fact in science has rewarded his toil, and a higher standpoint of truth has been arrived at.

Like the very mountains themselves, truth is stable; not as the vague hypothesis which too often surrounds it like dense vapour or fog, truth is unchangeable, even as is its Author. The works of God reveal Himself, for He is the Author of that which science searches out.

Every object in nature bears the impress of the Divine hand, and the book of nature reveals His wisdom, His beneficence, His creative power, and His superintending providence. I have no sympathy with those who, whilst they seek to open the book of nature, would close the more precious volume of Divine revelation; both emanate from the same source, and, when rightly understood, will never contradict each other. The Scriptures were not intended to teach science, but they never contradict it, however they may seem to be opposed to the false teaching of imperfect investigation. The unfolding of scientific truth is truly an evolution; it is a gradual process like the expansion of the beautiful leaf-bud; wonderfully wrapped together, but spread open under the silent powers of light and heat and growth; so is truth gradually revealed under the sunlight of advanced science. It would be unwise to guess the form and the delineations of the expanded leaf or flower from the mere outline of the bud, and guesses in science too often mislead and hinder the advance of truth. *Direct experiments* have led to the establishment of scientific facts; but mere *reasoning* on hypotheticalal data has been the greatest hindrance to the progress of science. The history of physiological science illustrates these statements, and in no branch of physiology is it more remarkable than in that of the circulation. In the discovery of the circulation of the blood the process was a

gradual one; the steps were often uncertain, and too frequently were retrograde in character.

Fragments of truth as to the function of the heart and the nature of the circulation are found in the writings of Plato, of Aristotle, and of Hippocrates; and the term that Plato gave to the large vessel—the aorta—is still retained by us; but the knowledge was very confused. The lungs were regarded as an apparatus to cool the heated blood, and to reduce the natural warmth, both emanating from the heart as their source; it was believed that the arteries contained spirit, and that the veins distributed the nourishment collected from the stomach and intestines to the rest of the body. Aristotle declared that the pulsation of the heart arose from its sudden inflation from new material supplied by the food for fresh formation of the blood. It is difficult for us so to divest ourselves of facts now established, as to realise the state of medical knowledge in those early times.

But let us turn to another great physician, one who was almost regarded as divine in his unfoldings of the truth of medical science. I refer to Galen; he was born A.D. 131, when the Roman Empire had become aroused by the power of Christianity. Galen lived in a time of persecution; although he was regarded by some as an enemy to Christianity, I cannot perceive of a pagan giving utterance to the sentiments which Galen wrote, and he was evidently acquainted with the writings of the Old Testament. Galen, though the friend of the Emperors Hadrian and Marcus Antonius, held views which were inconsistent with pagan worship. He says that “true piety is not shown in the sacrifice of hecatombs of bulls or in causing clouds of fragrant incense, but in studying myself to know, and in making known to others, the wisdom, the power, and the goodness of the Creator.” It would be well if many men of high attainment in our own day would copy such an example. Galen held correctly that the heart, though unlike other muscles, was still muscular in its action; he knew the structure of the valves of the heart, but he affirmed that there were pores in the septum between the ventricles which allowed some of the blood to pass from the right to the left side of the heart. Here he asserted what reason fancied rather than what he learnt by direct observation—a lesson to us, even at the present day, of the danger of forming our opinions on hypotheses rather than on established facts. How slow we are to learn this lesson, but how disastrous has been the result, when the statements of reason are received as facts, and are regarded as solid bases upon which scientific truths may be built! Like buildings upon unstable foundations, they crumble and decay when really tested. It is a slow process to get rid of these phantoms; the authority of great names, and the attraction of beautiful theories nicely accommodated and smoothly glossed over, give these emanations of thought the semblance of truth; and those who will not receive them are regarded as far behind in that which constitutes mental vigour and attainment. The vague notions of Galen had immense power, and held the minds of men in bondage for nearly 1200 years; and it was only when direct observations were made, and dissections were carefully studied by Vesalius and Servetus, that those shackles upon thought were unloosed. Galen regarded one ventricle of the heart as connected with nutrition and nourishment; the other, the left, had to do with vital spirit. He believed that the blood sent to the lung was especially for the nourishment of the lung itself, though he was quite ignorant of the circulation of the blood through the lungs. Vague notions of emanations and interchange of blood and air between the arteries and veins were held, but nothing like the true circulation of the blood was dreamt of; the blood was said to flow backward and forward, the vessels having different offices; and, instead of the blood being propelled by the contraction of the muscular structure of the heart, the expansion of the heart, the diastole, was regarded as the most important movement, and it was attributed to an imaginary innate heat. How different from the simple truth brought to light by the immortal Harvey! When direct experiment was made by Galen, truth was elicited, and one link was formed in the chain of facts connected with the circulation; he showed that, when an artery was ligatured and afterwards opened, blood was poured out, proving the nature of its contents to be blood, and not spirit; and he also ascertained by experiment that bleeding from the arteries emptied the veins.

(a) The Oration has been slightly abridged.



These observations led to results of a very different character from his deductions from reasoning. One careful observation as to the nature of the ventricular septum would have disproved his hypothesis of perforations through which blood could mix between the two sides of the heart. The experiment led to the truth; the reasoning without fact led to error. The fallacies engendered by the fertile imagination of a learned philosopher were only dispelled by the direct observations of those who followed, and especially by the untiring labours of Harvey. The opponents of research by experiment on living animals would have left us in the darkness and ignorance of Galenic times, for the dawn of light and scientific truth were due to experiment, and not to mere reasoning.

Vesalius, in 1512, rebelled against the assertions of the older fathers in physic, and he set at nought the mere authority of Galen. He first showed that the blood passed through the vessels of the lungs from the right to the left side of the heart, and that the blood was modified in its transit. Servetus, about the same time, published the same truth of a pulmonary circulation, but he still held that the venous blood derived from the liver was for nourishment, and that the blood in the arteries was spirituous and adapted for the heat and vital endowment of the body.

Other anatomists followed, and prepared the way for the fuller investigations of Harvey, Columbus Realdus, Eustachius, Fallopius, and Arantius. Fabricius of Aquapendente was Professor of Anatomy at Padua when Harvey was a student there in 1598. Fabricius had no correct idea of the circulation, although he rediscovered the valves in the veins. Cæsalpinus, born in 1519, had been professor at Rome; he died in 1603; and a remarkable circumstance connected with his history is that his countrymen have, after his death, attempted to prove that he knew more than he ever dreamt of during his life. He knew of the pulmonary circulation, but adhered to the doctrines of Galen, and believed that the blood had a to-and-fro motion in the vessels. It is considered by those who have given him the honour to which he was never entitled, that Cæsalpinus knew of the circulation, because he found that the veins swelled beyond the ligature, but he explained the phenomenon by stating that the blood sought to return to the heart in its wonted direction.

My predecessor, Dr. Johnson, has, I believe, fully shown that the claims of Cæsalpinus are without adequate foundation; and, whilst we would give all the credit that is due to the talents and researches of Cæsalpinus, we cannot find any warrant for the statement that Harvey obtained from him the knowledge of the circulation. The truths that had been ascertained were the result of direct experiment and exact research; the vague hypotheses that had been handed down from century to century had been the result of reasoning on insufficient data.

The times of Harvey were among the most eventful of English history: the liberty of religious thought was being felt, and exercised its influence; the demand for civil and religious freedom was co-existent with scientific research, with literary advancement, and with extension of commerce. It is surprising that the tumultuous years of civil strife did not check the ardour of the student of nature. Harvey was borne at Folkestone in 1578, during the closing years of Elizabeth's reign; and it is probable that, when a boy of ten, he saw from the cliffs of his home something of the Spanish Armada, which was intended to stop the freedom of thought and of spiritual life in our favoured land. The facts of Harvey's life are well known: how at sixteen years of age he went to Caius College, Cambridge, took his bachelor's degree in medicine, and then spent four years at Padua, where all that was known in anatomical science was taught, and where the germs of his future discoveries were probably formed. In 1602 he graduated in medicine, and soon after came to London, and began the active duties of his professional life, but we have very slight records of these years. In 1604 he joined the Royal College of Physicians, and became Fellow of the College in 1607. Two years later we find that he obtained the office of Physician to St. Bartholomew's Hospital, and had received Royal support in his application. In 1615, Harvey was appointed Lecturer on Anatomy and Surgery at the College; but it was not till 1628 that his great work was published, his "Anatomical Disquisition on the Motion of the Heart and Bloodvessels in Animals." Harvey was a lover of

peace and a student of science, but he could not have remained unmoved by the political events that were passing before him. In the same year that his great work was published (1628) was the Petition of Rights; in 1629 Sir John Eliot was condemned to the Tower, and the King began that system of defiance to the Parliament which led to the civil war and to his death. Harvey had been appointed one of the physicians extraordinary to James I., but it was not until Charles had been on the throne for five or six years that Harvey was appointed physician in ordinary to the King.

Harvey was then in the height of his professional career; his discoveries were becoming generally known, and he had established the great truths connected with the action of the heart, and the course of the circulation. For hundreds of years it had been supposed that the diastole of the heart, its expansion, was the most important movement; but Harvey saw the heart contract, and proved that the contraction, the systole of the heart, was that which was pre-eminently the propelling power, forcing the blood into the lungs and into the arteries, whose walls, more dense than the veins, yielded to the pressure. If he had been content to reason only, he could never have shown the error of the Galenic doctrine. It was by experiments on living animals that the truth was made clear to the mind of Harvey. Let us quote his words, and I use the translation of Willis, published by the Sydenham Society: "In the first place, then, when the chest of a living animal is laid open, and the capsule that immediately surrounds the heart is slit up or removed, the organ is seen now to move, now to be at rest. There is a time when it moves, and a time when it is motionless. These things are more obvious in the colder animals, such as toads, frogs, serpents, small fishes, crabs, shrimps, snails, and shell-fish. They also become more distinct in warm-blooded animals, such as the dog and hog, if they be attentively noticed, when the heart begins to flag, to move more slowly, and, as it were, to die; the movements then become slower and rarer, the pauses longer, by which it is made more easy to perceive and unravel what the motions really are, and how they are performed."

Again he writes: "The very opposite of the opinions commonly received appears to be true; inasmuch as it is generally believed that when the heart strikes the breast and the pulse is felt without, the heart is dilated in its ventricles and is filled with blood; but the contrary of this is the fact, and the heart when it contracts is emptied. Whence the motion which is generally regarded as the diastole of the heart, is in truth its systole; and in like manner the intrinsic motion is not the diastole, but the systole; neither is it in the diastole that the heart grows firm and tense, but in the systole, for then only, when tense, is it moved and made vigorous."

One quotation further from the works of Harvey. He writes: "What remains to be said upon the quantity and source of the blood which thus passes, is of so novel and unheard-of a character, that I not only fear injury to myself from the envy of a few, but I tremble lest I have mankind at large for my enemies, so much doth wont and custom, that become as another nature, and doctrine once sown and that hath struck deep root, and respect for antiquity, influence all men. Still the die is cast, and my trust is in the love of truth, and the candour that inheres in cultivated minds. And sooth to say, when I surveyed my mass of evidence, whether derived from vivisections and my various reflections on them, or from the ventricles of the heart and the vessels that enter into and issue from them, the symmetry and size of these conduits—for nature, doing nothing in vain, would never have given them so large a relative size without a purpose—or from the arrangement and intimate structure of the valves in particular, and of the other parts of the heart in general, with many things beside, I frequently seriously bethought me, and long revolved in my mind, what might be the quantity of blood which was transmitted, in how short a time its passage might be effected, and the like; and not finding it possible that this could be supplied by the juices of the ingested aliment, without the veins on the one hand becoming drained, and the arteries on the other getting ruptured through the excessive charge of blood, unless the blood should somehow find its way from the arteries into the veins, and so return to the other side of the heart, I began to think whether there might not be a motion as it were in a circle. Now, this I



afterwards found to be true; and I finally saw that the blood, forced by the action of the left ventricle into the arteries, was distributed to the body at large, and its several parts, in the same manner that it is sent through the lungs, impelled by the right ventricle into the pulmonary artery, and that then it passed through the veins and along the vena cava, and so round to the left ventricle, which motion we may be allowed to call circular." Thus Harvey made known to the world the discovery which has been of the greatest value in physiological science; it has revealed many things in the pathology of disease which could not otherwise have been understood, and has conferred the greatest benefit on the human race.

Never was the value of experimental research more clearly demonstrated. The links in the chain of truth on this all-important physiological question had been obtained by experiment; Harvey united those links, to which he had made such important additions, and proved beyond doubt the circulation of the blood. He showed how the blood passed in a continuous stream, and although the valves of the veins had been previously described by several older anatomists, as by Sylvius, Eustachius, and especially by Fabricius of Aquapendente, Harvey explained their true value and demonstrated their action. His work absorbed his mind and his energies, even whilst in his strange duties on the field of battle at Edge Hill, in October, 1642; whilst in charge of the young Prince and of the Duke of York he was engaged in reading, till warned by cannon-shot that he was in dangerous proximity to the scene of carnage.

Soon afterwards, in the same year, we hear of him at Oxford, with Dr. George Bathurst, watching the development of the chick—more congenial to his peace-loving soul than war and bloodshed. The victories of Cromwell and the Parliamentary armies at Marston Moor and at Naseby indicated the waning fortunes of the King; and after 1646, Harvey, who had attained to sixty-eight years of age, ceased to follow the King, to whom he seemed to have been greatly attached, and he went to reside with his brother. His interest in science did not cease; the same industry in the study of physiology was characteristic of his latter as well as of his earlier years, and in 1651 his work on *Generation* was published; it was imperfect in many respects, but it was an indication of the character of the great philosopher. His manuscript medical observations had been destroyed in the earlier part of the civil war by a senseless mob, and he never ceased to deplore the loss he sustained.

Harvey retained his mental faculties till an advanced age, and died in 1657, aged eighty years, a year before one who had taken the most active part in the civil contest of the time, and had placed himself on the pinnacle of power—I refer to Oliver Cromwell. The views of Harvey were regarded as extravagant; and truly they might well be so esteemed, for they were in direct opposition to many views that had been regarded as established truths. It had been supposed that the blood flowed from the larger veins into the smaller; Harvey proved that the reverse was the case, and that the blood reaching the smaller vessels from the arteries, returned from smaller venous branches to the larger trunks till the heart was reached. He did not know of the true anastomoses of the vessels; that remained for Malpighi, who was born in the year that Harvey's work was published, and who, in 1661, saw the capillary circulation in the frog. What Harvey had attained was gained by direct observation; where he failed, was in leaving this safe path for one of hypothesis. But it is pleasant to regard him as a man of earnest religious thought.

I delight to read from Willis's translation of Harvey's works the following words of truth from a student of nature: "We acknowledge God, the supreme and omnipotent Creator, to be present in the production of all animals, and to point, as it were, with a finger, to His existence in His works, the parents being in every case but as instruments in His hands. In the generation of the pullet from the egg, all things are indeed contrived and ordered with singular providence, Divine wisdom, and most admirable and incomprehensible skill; and to none can these attributes be referred save to the Almighty First Cause of all things, by whatever name this has been designated—the Divine Mind by Aristotle, the Soul of the Universe by Plato, the *Natura Naturans* by others, Saturn and Jove by the ancient Greeks and Romans; by ourselves, and as is seeming in these days, the Creator and Father of all that is in heaven or earth, on whom

animals depend for their being, and at whose will and pleasure all things are and were engendered."—"On Generation," page 462.)

Such was the immortal Harvey; a mind endowed with the highest gifts. The attainment of the knowledge of the circulation was a gradual evolution of the truth, as one portion after another was observed, till the whole was clearly seen in the beauty of its simplicity; it was the reward of patient research, and often by experiment on the living animal. I cannot find a better answer to those who, in their mistaken kindness of heart to lower animals, would perpetuate ignorance, than by reference to the inestimable benefit of the researches of Harvey. To stop the advance of science is to encourage the darkness of ignorance. If the laws of the present day had existed in the time of Harvey, we might have remained for long years ignorant of the action of the heart and of the circulation; and the knowledge of disease and the best curative measures would have remained unknown; or Harvey might have returned to Padua to make his experiments. If it were possible, it might be well for those who raise such a vehement outcry against the means often best fitted for physiological research—namely, experiment on living animals—if they ceased to partake of the advantages which humanity has received from these researches.

Time would fail me to describe the advances made in physiological science since the time of Harvey. It was a hundred years after Harvey's work that Stephen Hales used a manometer to estimate the pressure of the blood, and afterwards Poiseuille introduced a mercurial one. More recently, Volkmann and Ludwig have advanced our knowledge of the subject; but perhaps the most interesting investigations of later times in connexion with the circulation have been those of Claude Bernard, who has shown that section of the central sympathetic on one side of the neck was followed by a rise in the temperature and dilatation of the blood-vessels on the same side. On these experiments followed the discovery of the inhibitory action of the pneumogastric nerve of the heart itself.

Leaving these facts connected with the circulation, let us turn for a few moments to one of the most ardent students of nature of recent times, most patient in observation, diligent in research, an investigator of those minute circumstances which are often the guide to clearer truth, a profound philosopher, on whom this College delighted to confer the highest honour as a physiologist—I refer to Darwin. His facts are wonderful and entrancing; his deductions are *not* proven. What is more pleasant than to study his observations on plants and on animals? and perhaps none of his works are more attractive than his investigations on earthworms, in which he shows that animals hitherto regarded as of but little interest and service in the economy of nature are of the greatest value, and designed to be of incalculable benefit to man. Darwin proves that animals undergo changes greater or less in degree from modifying circumstances, and in this way that varieties are formed, and wonderfully adapted to the circumstances in which they are placed; that these variations are transmitted to the offspring; that many changes in plants and in animals can be produced at the will of man by altering the conditions of life; that some varieties are more permanent than others, and the surroundings of particular animals or plants may be so altered that they fail to comply with the necessities of life, and the animals or plants then cease to exist. There may, indeed, be a struggle for existence, and a survival of those which can live under existing conditions; but all these modifications do not *prove* that animals in their varied forms and characters are derived from a few forms, or from mere living protoplasm, without Divine interposition, or even that species are thus produced. Some of the lower forms of life, the infusoria and rhizopoda, have existed unchanged for enormous periods of time, whilst others have by some means or other attained to wonderful instinct and to marvellous adaptations to life. How full of interest are the minute changes in ants, their peculiar habits, their sterile members, their slave-holding propensities! There are alterations in different varieties, but they are ants still, and they show throughout, we think, the wonderful design of a superior mind, the mind of God. The instinctive skill of the bee may lead to the construction of the perfect cells of the hive-bee, and the less perfect one of the humble bee, but they are bees still; and it is difficult to believe that, by



tracing backward, however remotely, to primitive germs, we should find the ant and the bee produced from a similar origin, without Divine interference, although belonging to the same division of the animal kingdom. To what but direct design could we trace the electric organs of the torpedo and electric eel, or the remarkable arrangement for the fertilisation of orchids? The manifold peculiarities of animals and their adaptations require, we think, more than mere natural selection and the forces of the living structures of the animals themselves to produce structural changes. The exquisite beauty of the eye in the different classes of animals, according to their conditions of life, is, we consider, due to the direct power of a beneficent Creator; and so with every other sense, and the instincts of every species—the tribes of insect-life and their wonderful habits, the adaptations of birds and animals to their food-requirements and mode of life, the carnivorous to its need and the herbivorous to its wants, the migratory birds and the aquatic diver,—each indicates more than mere progressive development by insensible steps.

According to some theories the swallow would at first, we presume, be satisfied with short journeys, but the next and succeeding generations would take more extended flight to warmer climes. The poison-bag of the cobra or of the rattlesnake would, according to the same theory, by slow degrees attain its deadly venom; but whence the first beginning?

Whilst allowing all the facts that Darwin discloses, let us keep to the facts themselves, and not be led into hypotheses which are not proven. Science has been advanced by facts observed and proved, but where deductions are brought forward and received as truth, when the basis is only hypothetical, science has not been helped, neither by Galen nor by Harvey, nor by any student of nature. The wonderful and beautiful truths elucidated in embryology do not prove the statements of evolutionists, but rather show that a higher Power controls the development. Darwin says, "I believe that animals are descended from at most four or five progenitors, and plants from an equal or lesser number" ("Origin of Species"); but is number anything with the Creator, or does He descend to our standard?

The development of higher animals is a gradual process and by successive stages; but the presence of branchial fissures in the embryonic neck does not necessarily show that the animal is at that stage a fish; neither does the imperfect septum in the heart of the mammal during embryonic life show that at that time it was a reptile. These gradations are doubtless the steps by which the end can be best attained: just as, in the formation of a sheet of glass, the workman takes a portion of molten glass, but he does not roll it into a plate as one might suppose; on the contrary, he blows it into a sphere; then by gentle pressure, whilst he rotates the globe of glass, he moulds it into that which is well known as a glass shade; then, whilst still revolving, he cuts off the upper part, and leaves a cylinder of glass. At last, by dividing the cylinder longitudinally, and placing it in the furnace, it gradually unfolds and becomes a plane surface. The process is that best adapted to carry out the design of the workman; and so in higher development and with a nobler Artificer.

There is constant change on every hand, gradual development in every part of the natural kingdom; one variety by almost imperceptible steps is linked on to another,—and withal the hand of God is seen in every gradation. Just as in the unfolding of His character and purpose towards man—at first only by type and shadow, until we see the full unveiling of Himself in the incarnation of his own Son; ever and anon by fresh *direct* manifestation adding to that already given,—so in nature, we have indications that there has been *direct* interference with the chain of events; often gradual, sometimes changes of overwhelming force, but all carrying out the scheme of Infinite Wisdom.

Whilst speaking of these changes in animals I would advert to those of even greater interest in man. On him more than in any other form of animal life has the influence of modifying circumstances been manifested in altering his character, in raising or lowering his mental endowments, and even in changing his physical structure. Slowly have these changes been brought about, and at our own day they are seen to be in operation. The climate in which man resides wonderfully reacts upon his physical state: the heat of the torrid zone demands that the system should become accustomed to it; the requirements for the maintenance of

animal heat are altered; the normal functions are easily disturbed; the activity of the cutaneous transpiration is necessarily increased; the mind during the intensity of the heat often becomes less able to perform its function; and unless by degrees the system becomes acclimatised, the health utterly fails and the life may be forfeited. The Hindoo and the Negro have become accustomed by many generations of life to a state that a European cannot bear; the organism is changed, and the alteration is not only represented by the pigmental colouring of the skin, but by an adaptation in the whole economy. An opposite state is observed amongst those whose lot is cast in the colder regions near the Arctic Circle; the Greenlander and the Esquimaux, by many years of change through succeeding generations, can bear, with impunity and with enjoyment, a temperature which would soon be fatal to the inhabitants of Central Africa. The food-requirements of man are different, and whilst the Hindoo can live and thrive on rice, the Iclander needs his more oleaginous sustenance, the oil and the blubber become his life-supply; and every intermediate condition is found in the varied countries and localities of the world. An insufficient supply of nourishment soon tells not only upon the growth and nutrition of the body, but upon the energy and power of the mind. The poor half-starved peasant in the Connemara bog and desolate land deteriorates not only in his physical organism, but in that which is man's proudest endowment—his faculties of thought and his power of reason. The struggle to obtain a meagre existence drags the man down to a lower level; and the same painful fact is demonstrated among the tribes of Africa, the degraded inhabitants of Terra del Fuego, or the famine-stricken inhabitants of India or China. The condition of man may change in a descending scale instead of advancing to the civilisation of more privileged races. The circumstances of social life add other modifying conditions to man in his national existence. Compare the lithe athletic Indian with the phlegmatic Turk; the Bedouin Arab, in his wild nomadic life, with the quiet cultivator of the soil; the hardy fisherman and sailor, exposed to the vicissitudes of weather and to the storm and tempest, with the man whose life is spent in one close room or for long hours in a poisoned atmosphere. The life is changed, and the consequences are seen in succeeding generations, till the whole race is affected, and the impress is witnessed in the most marked divergence of character, thought, and action.

But there is another evolution in man. Morbific changes take place from the result of modifying conditions; an evolution which is the direct result of pathological states. The parent may be affected with syphilis, and the offspring become altered in its whole development and growth; and if, beside, one or both parents have a strumous or scrofulous diathesis, or have shown a proneness to cancerous disease, the state of the offspring is modified still further; or with a tendency to gout another force is presented, and the resultant is an altered phase of life. Still further, the parent may have a nervous system that is extremely sensitive and easily disturbed; it may be that there have been epileptic attacks, or a tendency to mental affection and insanity; a superadded source of disturbance is given, and the resultant of combined forces is manifested. All these causes of change may be yet more diverted from healthy action by the circumstances in which life is placed; not only as regards good food, pure air, and the surroundings of civilised life and education, as contrasted with the wretched state induced by poverty and starvation, imperfect clothing, dark and offensive dwellings, but to these may be added an aguish locality, producing miasmatic disease, and having a baneful influence upon the whole being. The clinical observer witnesses the result of these combined morbific forces in a hundred forms, and they produce results which are most embarrassing unless understood.

Almost every advance in science has been made by the direct questioning of nature, whether we go to Lavoisier and trace the wonderful steps in chemical science, or from Bichat we note the progress in biology. It has been by experimental researches, and especially on living animals, that the important discoveries on the nervous system have been fully established. I need not refer to Sir Charles Bell, to Marshall Hall, to Duchenne, to Brown-Séquard, to Hughlings-Jackson, and to many others; but the more recent investigations of Dr. Ferrier, also connected with the nervous system and the localisation of cerebral function, have been and will be of



increasing value in rendering the knowledge of disease more accurate, and in leading to correct diagnosis and treatment.

An illustration of the value of study of the kind just mentioned is well shown in the pathological investigations connected with tubercle. The subject is one replete with interest, and especially in connexion with a disease of so frequent occurrence as phthisis. The phenomena of tubercle, since the time of Laennec and Carswell, have been wonderfully cleared up. There was truth in the views of Dr. Williams, who referred tubercle "to a degraded condition of the nutritive material," and said that in its origin it differs not in kind, but in degree of vitality and capacity of organisation. The clinical observations of Dr. Addison rested on a sound basis, when he declared that inflammatory changes were of the greatest importance in the pathology of the disease. The microscopical observations of Gulliver have been advanced by W. Addison, Virchow, Langhans, Rindfleisch, and many others; but perhaps the most interesting observations have been those of Villemin.

He shows that animals inoculated with fresh tubercle become tuberculous. Tubercles were found in the spleen, in the lungs, and in other viscera. From his experiments, it was supposed that there was a special virus which would reproduce the same morbid change when introduced into the system. If these experiments had been made twenty years later, the original statements might have gone forth as established truths; but science was then less trammelled. Burdon Sanderson, Wilson Fox, and others, tested the theories that had been broached. It was found that, although the experiments were true that tubercle could be artificially produced, it did not require tubercle to be used; that other animal substances, that vegetable irritants, and still more, that a mere wound, would suffice under certain conditions; that these irritants, when placed within the tissue, became surrounded by product of a cheesy and inflammatory character; and that the subsequent changes in these products, in a diathesis of a tubercular type, led to secondary deposit of an advanced character in connexion with the lymphatic system. It is true that some guinea-pigs were used to establish these most interesting and important pathological truths; mere reasoning would have misled. The advance of science was due to *direct experiment*; and, happily, the barriers were not then existing, and the obstacles to research had not been devised. With all these observers, from the commencement, the unfolding of medical science has been a gradual one, as step by step the darkness of ignorance was dispersed by increasing knowledge.

It is the object of science to attain to exactness in knowledge, and the advance of one line of truth reacts upon others in close relation with it. During later years, how much has been ascertained as to the character of the blood itself, its more precise composition in various periods and states of health, not only as to its white corpuscles and the red corpuscles, and perhaps other forms, but as to the migratory character of the leucocytes. Chemical science has unfolded much, and will do still more; but the microscope and the spectroscope have added immensely to our knowledge in relation to the pathological as well as the physiological changes of the blood itself. With a better knowledge of the heart and its valves, and the altered states of its muscular fibre, we have learnt not only the true nature of the sounds of the heart, but the import of their morbid changes; the sphygmograph and cardiograph have led to as much accuracy in clinical observation as the use of the thermometer has done in the study of febrile conditions. The discoveries in the physiology of the brain and the whole nervous system have explained the facts of pathological science; but it has been a gradual evolution of truth. In no branch of medical science have greater advances been made than in the knowledge of the diseases of the spinal cord and of the whole nervous system.

During the last few years a comparatively unexplored field of research has been laid open, which is now being pushed forward with determined zeal: the study of the morbid germs, and their connexion with the etiology of disease. The bacteria are now regarded as the actual or the proximate causes of many maladies; they are the simplest forms of vegetable life, and are classified according to their several characters. To the presence of some of these forms of the micrococci are attributed many terrible varieties of disease, as pyæmia, erysipelas, and internal

suppurations. Some of these bacteria are found in the blood; they undergo stages of development and decay, and induce secondary changes in the tissues with which they come into contact.

Pasteur, in his observations on splenic fever in animals, and the manner in which the bacilli may be modified by successive germinations in proper fluids, has unfolded facts which will probably prove of immense value; but the interest has been eclipsed by the observations of Koch in reference to the bacilli of phthisis. That these bacilli are found in the expectoration of true phthisis has been established, and their presence has also been observed in the tubercle in the lung itself; while it is stated very positively that they do not exist in other forms of pulmonary disease, as chronic pneumonia and chronic bronchitis; that, in consequence, phthisis is a disease directly communicable from one person to another. Whilst there is much to warrant this opinion, let us bear in mind that it is not as yet established; fuller facts will doubtless be brought forth by other observers, and it is wiser to wait for clearer knowledge before we at once accept the opinions of these observers upon the data already made out. We desire to know more of the natural history of these bacilli; whether they are really animal structures possessing individual life and advancing to fuller development, or mere fragments of living organism about to pass into inorganic forms. They increase in size, spores appear to be produced and set free, or they propagate by simple division. But whence do these bacilli come to be found in the cells of tubercle, and not to leave traces behind them of their mode of entrance? Or are these the commencement of degenerative change in ill-developed tissue?

The munificent grant of the Grocers' Company in the City of London, for the establishment of a Quadrennial Discovery Prize, may, we trust, lead to advancement in the knowledge of these organisms, which are placed at the very threshold of animal life, but capable, it would seem, of stopping the course of life itself in the highest forms of development.

The science of pathology is advancing with rapid strides, but the fear is lest, by hasty generalisation, its progress be retarded, and that hypotheses imperfectly established be used as the solid bases upon which to build explanations of disease and modes of treatment. The safeguard against these disastrous results lies in the plan adopted by Harvey in the study of the circulation of the blood—patient research, direct experiment, and exact observation. Everyone interested in the advancement of medical science must, we think, desire that those hindrances which have been formed by mistaken sentimentalism may be laid aside, and that true knowledge may be promoted in all its beneficent purposes. The advancement of science is the pride of a nation, and a benefit to the whole human race.

The science of medicine is unselfish in its character; the members of its profession give their knowledge for the general good, and the influence is spread for the service of man wherever he may be found. The advances made in Germany, in France, in the United States, and elsewhere, are soon known and reflected back, with additions obtained by our own investigators. The International Medical Congress two years ago was an illustration of the commonwealth of science, and of the brotherhood of medical men. Medical science, like a stream, flows on quietly and noiselessly as regards the external world. Its source is far back in ages that are gone by, but it diffuses on the right hand and on the left a thousand benefits to those who avail themselves of it. It derives strength and power from other sciences as they join in, as streams flowing on in like direction, and thus the power for good is enhanced.

According to the published accounts, we have no record of a campaign where the wounded suffered less from blood-poisoning and sloughing sores than in the recent war in Egypt. Sir W. Mac Cormac states: "During this campaign there was never any outbreak of those infective diseases that have hitherto decimated the wounded in time of war. There was no pyæmia, no erysipelas, and no hospital gangrene as the result of wounds. Not a single man lost his eyesight, though there were 1494 cases of inflammatory diseases of the eyes admitted to hospital." But the doctors were expected to take the onus of the failure of other parts of the service to secure pure and wholesome bread, supplies of beds and sheets, pure water, and to contend with the plague



of Egyptian flies; they have, however, the consciousness of having rightly performed their duty, and when the facts are fully known we believe they will be honoured.

It has been the common experience of medical men, that oftentimes when the praise was most deserved they have received the least; and it may require years and even a lifetime to show the true value of work, and to remove the mistakes of insufficient knowledge and of prejudice. It was so in the great work of Harvey himself; some of the practitioners of his own time thought lightly of his views and of his practice, for they did not understand the importance of his discovery. The mountain-peak may shine brightly in the morning sunlight, but a deep shade may be cast from the mountain-side till a brighter light and noon-day sun dissipate the shade. In like manner some great truth may stand forth in all its brightness, but a dark shadow may be cast beyond, till ignorance is lost in the sunlight of completer knowledge.

The pages of nature lie open before us all; and the lessons we have sought to establish from the works of Galen, from Harvey, and from Darwin are, that we must seek to unfold the mysteries of science by patient research and experiment, and that we must not accept as truth any theory which is the result of our own reasoning unless it can be proved by observation. To every humble-minded investigator there is an ample reward, and the fault is not in nature if we do not enrich ourselves from the stores laid before us.

**EXTIRPATION OF THE LARYNX.**—We learn from the May number of the *Indian Medical Gazette* that the Hindoo, whose larynx Surgeon-Major Dr. Macleod extirpated in December on account of a growth which filled up the rima glottidis, is progressing very favourably. The power of swallowing has been restored by winding a narrow rubber bandage round the neck, which supplements the deficient wall, aids by its elasticity the transmission of the food, and prevents the escape of this by pressing firmly on the edges of the aperture. Another apparatus constructed of vulcanite plugs the aperture, the food being passed through a hollow scooped out of the inner aspect of the plug. Feeding is accomplished partly by these apparatus, and partly by a soft catheter passed into the œsophagus and connected with a tin funnel and india-rubber valve. The restoration of the voice was a less easy matter, but after various methods had been tried, a pipe containing a reed was inserted into the roof of the tracheotomy-tube, and with this the voice and vocal articulation were restored; Mr. Woods adapted this to a vulcanite shield, which prevented the escape of air. The tracheotomy-tube served when unclosed for breathing and discharge of phlegm; and when its outer surface was stopped, the air passed through the vertical tube into the oral cavity, and voice was easily produced. The advantages of this arrangement are:—1. That sound is produced without much effort. 2. Its great simplicity and the ease with which it can be placed in position. 3. That breathing can be accomplished with great ease. 4. That the reed is not apt to become clogged with mucus. 5. Different sizes of reed producing different pitches of voice can easily be placed in the tube.

**DOUBLE EXCISION OF THE HIP-JOINT.**—Dr. Byrd, of Quincy, Illinois, related at the American Medical Association a case of double excision of the hip-joint, and records of the only two other instances he has been able to find. The patient, a girl ten years old, is now able to go up and down stairs without crutches, and over smooth ground, but employs them over rough ground. The incision for the removal of the head and upper portion of the right femur commenced two inches above the great trochanter, and was continued curving downwards so as to pass behind the great trochanter and ending five inches below its origin. The soft parts were pulled aside and detached carefully with the periosteum from the bone with a dental scraper, the softened bone being divided by pliers just below the trochanter. An abscess existing on the left side over the great trochanter, this was freely laid open and the trochanter removed with the pliers. Both wounds were dressed with balsam of Peru and oakum, and the child was placed in one of Dr. Verity's splints. Dr. Verity, of Chicago, exhibited his splints and derrick, which were much admired in the Section.—*Phil. Med. News*, June 16.

## THE SANITARY LESSONS OF INDIAN EPIDEMICS.(a)

By Surgeon-General J. M. CUNINGHAM,  
Sanitary Commissioner with the Government of India.

THE author commenced the discussion of this subject by referring to the views he had expressed regarding cholera and other Indian diseases at a meeting held by the Society ten years ago, and proposed to inquire how far those views had been altered or confirmed by further experience. The field of observation in India, he observed, is very large, and specially fitted by its extent, the variations of race, and local conditions for the study of epidemics. The large bodies of troops and prisoners scattered over this enormous area give exact data, which are supplemented by the statistics obtained regarding the general population. These data deserve much more attention than they have hitherto received. India has contributed largely to our knowledge in other fields, both of peace and war, and in sanitary matters also much may be learned from Indian experience. But in order to benefit by this experience it is essential that the history of disease should be considered not only from a local, but also from a general point of view. The facts must be most carefully collected; mere opinions must not be confounded with facts. All the facts must be collected, and not only those on one side. Solitary cases of epidemic disease must be studied with as much care as the many cases of the epidemic itself. Mere relation of time, a mere coincidence, must not be regarded as proof that the two events concerned stand to each other in the relation of cause and effect. It is essential that all evidence should be carefully weighed, and that undue value should not be attached to one class of facts on the plea that they embody positive evidence, to the entire exclusion of another set of facts which are considered as embodying only negative evidence. The theory which attributes epidemic or other diseases to importation is no explanation, but merely refers the question back to an anterior state of things—in other words, to the place from which the disease is said to have been imported. In inquiring into the causation of disease, nothing must be assumed, neither the existence of germs nor anything else, but each step must be taken as the result of strict logical induction based on well-ascertained facts. These general principles are of vast importance in dealing with the difficult questions concerning disease, and especially concerning epidemic disease in India. The propositions that cholera is due to a germ originated in the delta of the Ganges, and that it is thence carried by human beings, rest on no such evidence. They are, on the contrary, opposed to the great facts now known regarding the disease in India—the general direction taken by cholera epidemics, the proved immunity of attendants on the sick, the small proportion of villages attacked even within the epidemic area, and others that might be mentioned. The only means of prevention of cholera is to be found in sanitary improvements, and in removal from the locality when attacked, for its localisation is one of the most peculiar characteristics of the disease. Experience tells much the same general truths regarding enteric fever, though this in India is, in the main, a disease of young Europeans new to the country. The importation and germ theory will not account for it. Enteric fever in India is the result of climate telling on constitutions unaccustomed to the strain, and favoured, as all diseases are, by insanitary local conditions; it is to be classed with other forms of what is known as malarial fever. It is not necessary to find an entity to account for disease. The most powerful forces we know in the world, such as the wind, electricity, and steam, do not owe their powers to any entity that can be seen under the highest magnifying power. These are not mere theoretical views; they have a very practical bearing; they lie at the root of all real sanitary progress. The commonly and too hastily accepted theories of germs and contagia have had the most disastrous consequences, causing much

(a) Read before the Epidemiological Society on Wednesday, July 4.



domestic misery by needlessly separating members of the same family at a time when their duty clearly lies in attending on their sick relatives and friends. They have also engendered needless alarm, which is most favourable to disease. They have caused the imposition of quarantines, which are but the natural outcome of them, which are most harassing and annoying and hurtful, and can be productive of no benefit. And they have caused the neglect of sanitary improvements, which are the only real preventives of disease. All this is very forcibly illustrated by what is going on in Egypt, where soldiers with fixed bayonets are attempting to stay cholera. They might just as well attempt with fixed bayonets to stay the wind, or the rain-cloud, or the thunder-storm. Now is the time to put our town-houses in order, and to see that our sanitary condition is good.

## REMINISCENCES ABOUT CHLOROFORM.

By CHARLES R. FRANCIS, M.B.

*Case 1.*—The ward of a large mixed European and native hospital in India was one day suddenly thrown into a state of great excitement owing to the death of a patient, behind the screen, under chloroform. He was a fine young man—an Englishman—of twenty, and had been admitted for stricture of the urethra. He was keenly sensitive to pain, and begged to be made insensible when the catheter was introduced. The surgeon—a very able man—kindly acquiesced; and the anæsthetic was administered daily. He was eminently a favourable subject for its exhibition. It was customary at the time when the accident occurred—some twenty years ago—to give chloroform by means of a handkerchief formed into a hollow cone. The plan is simple, and answers well enough if care be taken to dilute the gas with air. But this was just what the native assistant did not do. His attention being drawn to something else, he allowed the cone to completely cover both mouth and nostrils; and so he kept it, looking another way. The surgeon was engaged with the operation, and was of course horrified beyond measure to find, on turning to speak to the patient, that he was dead. Death had been very sudden, without any preliminary convulsion. The poor fellow was completely overpowered by the anæsthetic.

*Case 2.*—A similar accident very nearly occurred in my own practice a few years previously. My assistant was an elderly gaol native doctor, to whom the administration of chloroform was new. He too from ignorance, the extent of which I did not at the time appreciate, covered both nostrils and mouth with a handkerchief formed into a cone. The patient was a young civilian, whose right middle finger had been shattered up to the joint by the bursting in his hand of a gun, so that it became necessary to remove it at the centre of the metacarpal bone. No blood flowed from the wound made with the knife, and on looking at the young man's face I was shocked to notice its death-like expression. The pulse at the wrist was barely perceptible, and he had almost ceased to breathe. Strong friction with turpentine on the limbs and trunk towards the heart after a time restored animation; and I was very thankful to hear him inquire when we were going to begin! He had dreamt, when under the influence of the chloroform, that he was being surrounded by a host of dry bones, which were hemming him in so as to cut off all chance of escape.

*Case 3.*—In another case the patient, also a young civilian, had allowed a whitlow on his hand to assume very large proportions. He so flinched from the knife that we were fain to be content with poulticing. At length the suppuration became so great that he consented to have the abscess lanced, stipulating, however, for chloroform. This was given him, the patient evidently knowing when he had had enough. Believing him at one time to be sufficiently insensible, I opened the abscess-knife (Syme's), and prepared to operate; but he waved me off. This occurred twice. The third time, however, he held out his hand, intimating that he was now ready; and, as I introduced the knife, he looked composedly on, without, he told me afterwards, in the least feeling it. The patient had been cognisant of every step of the operation.

*Case 4.*—The chloroform imported in former days into India was often very impure, the effect of inhalation being frequently most distressing; the more so as large quantities would be required to produce insensibility. Constant nausea, with vomiting and loathing of food, were, with extreme prostration of the nervous system, the prominent symptoms. Major M—, a military officer recently returned from furlough to Europe, when it was decided that a tooth was to come out, strongly objected to take chloroform. The dentist, however, an Eldorado-seeking adventurer, glibly assured him that all would be well, and administered it. Under its influence the major became like a maniac, pulling about the tables, overturning the chairs, and successfully baffling the operator in his efforts to remove the tooth. He never forgave the dentist, who, he asserted, had at one stroke destroyed his nervous system, which he had expended three years at home in endeavouring to build up.

*Case 5.*—A married lady, without children, consulted me for persistent headache affecting the whole of the head. Her habits were not conducive to health. Late hours, unsuitable food, and indulgence in worldly pleasures had brought about a state of nervous exhaustion that made her life miserable. An American doctor had advised her, whenever she felt headache coming on, to take a whiff of chloroform; and she systematically did so. The pain was relieved for the moment, but returned afterwards with still greater intensity; and her general health was greatly undermined. I of course at once withdrew the treacherous auxiliary; and, under totally opposite management, she soon got well. But the case, alas! is one of many of a like nature, where the patient (usually of the fair sex) takes to chloroform in the first instance for the removal of pain, and eventually for the sake of the dreamy condition which this anæsthetic sometimes produces. It is not often recommended, I imagine (as in this case), by a medical practitioner!

**SWEEPING THE PHARYNX BY THE TONGUE.**—In the *New York Med. Record*, June 9, Dr. Roe, alluding to a similar case published in a former number by Dr. Whiting, narrates the case of a man, aged twenty-five, who applied to him for an affection of the nose and throat. On examination, chronic rhinitis was found to be present, accompanied by some adenoid hypertrophy of the vault of the pharynx. This he could plainly perceive himself with his tongue, as also several holes or depressions in it, which were plainly visible to the rhinoscopic mirror. As his nostrils were narrowed by thickening of the inferior turbinated bone, the tip of his tongue could not be seen through the nostrils when in the vault of the pharynx, as it was in Dr. Whiting's case; but the patient was able to move with his tongue a probe when inserted through the nostril as far as its posterior aperture, and if it were pushed further back he could throw it forwards nearly out of the nostril. By looking into his mouth while he performed this feat, his tongue was seen to pass up behind the palate, burying itself almost out of sight behind the velum. There was nothing abnormal about the tongue or fauces, and the frænum was well marked, though a little longer and more lax than usual. The only peculiarity observable in the tongue was the great voluntary muscular control which the man had over its movements, enabling him to place it in any conceivable position in the mouth, fauces, and naso-pharynx.

**DEAFNESS AND TINNITUS IN BRIGHT'S DISEASE.**—In a paper read at the American Medical Association by Dr. L. Turnbull, "On Tinnitus and the Deafness which accompany different forms of Bright's Disease," he reported several cases, and concluded that the symptoms of disturbance of hearing may be an assistance in the diagnosis of the early and obscure stages of Bright's disease. At times, all other symptoms being absent, only cardiac hypertrophy and auditory symptoms are noticed in interstitial nephritis, and the diagnosis may be confirmed by examination of the urine.—Dr. Connor observed that these aural symptoms would be very valuable if they were pathognomonic, but he had met with similar symptoms which had no connexion with systemic disease.—Dr. Turnbull replied that the subject was too new for him to state whether the symptoms of serous effusion and injection of the tympanic membrane, which he had noticed in all his cases, were pathognomonic or not.—*Phil. Med. News*, June 16.



# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## LIVERPOOL ROYAL INFIRMARY.

### SERIES OF BONE AND JOINT CASES.

(Under the care of Mr. RUSHTON PARKER.)

*Continued from page 727 of last volume.*

*Case 2.—Synovitis of the Knee-joint—Aspiration of the Effused Fluid—Linear Fixation of the Limb without Confinement of the Patient—Cure in about a Month.*

JOHN M., aged thirty-nine, a dock labourer, applied on March 22, 1878, having had his right knee weakened and partly disabled during the previous two months, in consequence, it was supposed, of the strain of his work. The case was one of simple fluid effusion, with the associated encumbrances above alluded to, but without any acute features. Two ounces of yellow liquid were drawn off at once by aspiration through a needle about the size of a No. 2 catheter; the limb was put up perfectly straight, supported behind the knee by a sheet of perforated zinc plate reaching from the middle of the thigh to the middle of the leg in the form of a half-cylinder, fixed with strips of thick plaster, and surrounded with a bandage. The front of the joint was left uncovered for inspection, and the patient walked home, having instructions to call and show himself once or twice a week. No re-accumulation took place. The splint and plasters were removed at the end of a month, being replaced by a bandage alone, to limit the movements now resumed. Complete recovery of the joint followed shortly after.

*Case 3.—Acute Sprain of the Knee-joint—Aspiration of Effused Blood—Treatment partly in Bed and partly on Foot—Cure in about a Month.*

HARRIS W., aged twenty-seven, a Polish Jew glazier, applied on August 9, 1879, having four days previously fallen in the street and severely hurt his right knee, which had shortly after swollen, and had been extremely painful in the interval. The joint was distended, very tender, and apparently constantly painful. Besides the unequivocal signs of disablement he exhibited the timidity and extreme sensitiveness that seem to be usual in his race. He was put to bed, and the limb was placed at once perfectly straight in a Thomas's knee-splint. Aspiration was then performed at the outer upper corner, and about two ounces of bloody fluid, that soon coagulated, were drawn off, with admitted comfort to the patient. Three days later the splint was removed, the joint was enveloped in many layers of plaster (pitch and resin spread upon brown paper) from the middle of the thigh to the middle of the leg—not tightly, but so as to maintain the straight position,—and the patient sent on foot to his home in the immediate neighbourhood, whence he returned twice a week for inspection. The plasters were removed each time, the joint examined, and fresh plasters put on, making a stiff case as clean and neat as a grocer's parcel, as firm as a starched bandage, at a cost to the hospital of about two-pence, and to the surgeon of about two minutes on each occasion. A little re-accumulation of fluid was noticed during the convalescence, but this gradually disappeared under the fixed position of the joint, that still did not debar the patient from the painless support and moderate use of the limb in progression.

*Case 4.—Chronic Synovitis of the Knee-joint—Repeated Aspiration—Treatment in the Fixed Straight Position, without Confinement of the Patient—Cure in about Three Months.*

PETER D., aged forty-three, a seafaring man, applied on March 15, 1878, having effusion of fluid in his right knee of two years' standing, supposed to be due to rheumatism. The joint was plainly distended, but there were no acute symptoms, the only inconvenience being weakness as compared with the opposite limb. Aspiration was done, and the limb fixed with plasters and bandage over a wooden back-splint. The joint filled again, and was again aspirated on the fourth, seventh, eleventh, fourteenth, and eighteenth days after his first application. It now became obvious that

the movements of the joint were hardly, if at all, controlled, owing to the shortness, stoutness, and abruptly tapering shape of the patient's limb, to which a clumsy wooden splint is not easily made to cling. He was accordingly persuaded to get a Thomas's knee-splint of the calliper variety, fitted below into the heel of his boot. This he wore day and night, the limb being bandaged straight between the iron stems, and the knee-joint maintained immovable, while yet progression and the support of the body were permitted. The slight effusion that still returned after the last aspiration gradually disappeared, the joint resumed its normal size and shape, the patient gradually found by temporarily dispensing with the splint that he was recovering the efficient use of the member, and eventually went to sea again, quite recovered, at the end of three months.

*Case 5.—Chronic Synovitis of Knee—Aspiration at Intervals during Four Years, with Apparent Cures and Subsequent Remissions—Periarticular Exudations, Free Incisions, and Eventual Complete Success.*

RICHARD P., a sailor, aged thirty-two, was admitted in November, 1878, under the care of Mr. Bickersteth, on account of an extensive hydrarthrosis of the left knee. The affection had existed for four years, had never been acute, and the patient had done his best to work, but at last had to give in. Aspiration was performed once, and as the joint filled again the patient was shortly after discharged. From December, 1879, to February, 1880, he was under the care of Mr. H. O. Thomas, who aspirated the joint three times, and applied plasters to it in the intervals. Effusion having disappeared and the use of the limb been restored, he was discharged cured, or apparently cured as it turned out, for three months later a fresh accumulation had taken place, and with it the consequent weakness of the knee. He entered the Infirmary in June, 1880, under the care of Mr. Parker, who aspirated the joint on four consecutive days, ending July 1, the patient being in bed and having the limb previously fixed in a Thomas's knee-splint of the ordinary long pattern used for bed purposes.

On July 12, 1880, he was fitted with Thomas's calliper walking knee-splint, and, as Mr. Parker was going from home, placed himself again under the care of Mr. Thomas, who continued the observation of the case. Nothing more was heard of him till September, 1882, when he stated that the knee had remained painless since last note until a few months previously, when a subcutaneous swelling was found on the upper outer corner of the affected knee. This had increased in size, had, he said, been incised by Mr. Thomas, and was now a sinus from which sweet serous fluid escaped in small quantity daily. Another indurated spot was felt on the inner lower aspect of the front of the joint. There was a constant pain complained of by the patient, and some tenderness, but his health was good, and the joint entirely free from distension. His calliper splint was kept on, and the man allowed to walk about the hospital, the sinus being covered with boracic lint, and regularly squeezed by him.

On October 6, 1882, under ether, the sinus was enlarged, and found to extend upwards into the vastus externus, while downwards it was immediately outside the capsule of the knee-joint. The lining of lymph and granulations was scraped away with Volkmann's spoon, and the exposed fresh tissues carbolicised with one-in-twenty lotion. The indurated and partly liquefied spot at the inner lower corner of the joint was now cut into, found to consist of lymph and dark yellow serum, all of which was turned out, and the lining (in which no granulations had formed) scraped away. Careful examination showed this cavity to be subcutaneous, and entirely outside the capsule of the joint, the outer surface of which, however, was thus exposed. Both incisions were dressed with eucalyptus ointment inside a Listerian gauze dressing. The operation was done under the carbolic spray, and due precaution taken in case either incision might have been found to expose the interior of the joint. The calliper splint was worn throughout, during the operation as well, and after a week or so the patient was allowed to get up. Granulation took place and perfect healing, without inconvenience, and the pain previously complained of disappeared.

On December 20 he was well, and discharged for Christmas. During the healing of the skin-cuts he complained of swelling of the left testicle, and fancied he had squeezed it



against the adjacent ring of the splint. This was kept under observation for many weeks, slung in a suspensory bandage, and treated by the administration of grey powder internally, but without good effect. There was no history of syphilis, and not a clear one of injury, but it became unmistakable that a hard nodule of some kind, probably cheesy, remained, and the patient was advised to have the organ removed. This he has not yet consented to.

*Remarks.*—The course followed in the case of this knee is peculiar. Such cases are generally easily cured by the treatment of fixation here employed, with or even without aspiration. It cannot be decided to what precise circumstance the periarticular collections are due, but the fact of repeated aspiration naturally suggests the bare possibility of some association between them as cause and effect. The affection of the testicle also, in which there is still an exudation, suggests, by its resemblance to tubercular formations, that this or an allied form of infection may have also complicated the inflammation at the knee.

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## Medical Times and Gazette.

SATURDAY, JULY 14, 1883.

#### SOME OF THE RECOMMENDATIONS OF LORD MORLEY'S COMMITTEE.

THERE are a few suggestions and recommendations for the improvement of the Army Medical Service which have to be regarded before we bring our review of the proceedings of Lord Morley's Committee to a close. And before noticing them in detail, we wish particularly to remark that all such suggestions have for their end and purpose *the intention to improve the present system of medical administration, but not to reconstruct it.* It is desirable to state this plainly, because Lord Wolseley, when he addressed the students of Charing-cross Hospital last week, implied that the Medical Department was antiquated, out of date, and unfitted for modern scientific warfare. He asked, "What could be more ridiculous than if we were to attempt to carry on the medical affairs of the Army on the same system as they were carried on during the Peninsular or Crimean War? The Medical Service requires to change, as we change

our arms and munitions of war." And again he says, "But although I may find fault with the Medical Department of the Army, there is no reason that we should find fault with the medical officers." Now, with all respect to Lord Wolseley, we must say that his remarks upon the "Department" are unjust and without foundation, for no system of administration in the Army has changed more or advanced more than that of the Medical Department since the Crimean War. No one knows this better than Lord Wolseley, and the only real complaint to be found in his evidence before the War Office Committee amounted simply to this—that the Medical Department *would* not assume the power of purchasing indiscriminately, on their own authority, in defiance of all War Office regulations. Lord Wolseley thinks such an assumption of power would have been condoned, and probably he feels that it was *his own action* that made such an assumption desirable. The tone in which he indulges when he speaks of the Medical Department makes us wonder whether he is himself not conscious of having unnecessarily contributed to medical embarrassments. We know that

"Forgiveness to the injured does belong;  
But they ne'er pardon who have done the wrong."

At any rate, the Medical Department bears no malice, and can afford to forgive Lord Wolseley. We pass on gladly to the suggestions for the improvement of medical service in the field. One of the recommendations of the Committee (No. 15) runs thus:—"Provision to be made for mounted bearer companies"; and good reason for this is found in the report of Colonel Stewart (Appendix No. 39): "It seems to me that in the future not only must cavalry be called upon constantly to fight on foot, but this at considerable distances from the main body of the army, and that often they must move rapidly to these distances. A bearer company can, under present circumstances, make no pretence of keeping near cavalry. . . . I think that a mounted bearer company should take the place of the present bearer company, so far as cavalry is concerned." It may be taken for granted that the Medical Department would raise no difficulties in the way of this, but would readily adapt itself to the wants of cavalry employed under any conditions. Another recommendation (No. 40) is to the effect that non-professional clerical work shall be transferred to Army staff clerks. According to the evidence given by Major Terry, "there is generally, throughout the Army, a want of confidence in the medical skill of the medical officers, so much so, that it has become a great cry against them." He declares "it is a common expression among the medical officers in charge that patients may die to any extent so far as the regulations are concerned. I would not wish to imply that they would neglect their patients, but they say 'the practical effect of the regulations is that patients may die, and it is of no importance to us: but if the returns go wrong, we should come to grief.'" He was asked, very naturally, "Do you not think those medical officers were joking with you?" but his reply was, "No; I think they were speaking in sober earnest." This witness accompanied the expedition in the capacity of correspondent to the *United Service Gazette*, and it may be supposed that he was in the habit of putting things in a forcible and graphic way; and he wished to emphasise his objections to the medical regulations. "If these are looked at," he states, "it will be found that a strict and direct responsibility in respect of administration and clerical work is thrown upon the senior officers, but the direct responsibility for the treatment of the patients by the junior officers is thrown on those junior officers" (5653); and he goes on to say, "As even in civil life the older medical men are preferred to the younger ones, it is



only natural that officers and soldiers should prefer men of greater experience." It is, in the circumstances, satisfactory to find he owns, "As far as my own experience of the medical officers as a body is concerned, I consider that they are everything that could be desired—there is no want of skill or of zeal on their part; but, as I say, it seems to me that the regulations are open to objection in throwing the whole responsibility of the medical treatment practically on the juniors, and everything else practically on the seniors." He appears to have really given much thought and attention to the matter, however, and his opinions deserve consideration. It is clear that the seniors of the Medical Department on a campaign must be answerable for administrative duties, and much of their time must be taken up in organising and superintending medical arrangements generally. These are duties which do not fall to the same extent upon civilian practitioners, who are more immediately occupied in the treatment, than in the prevention of disease; still it is certainly desirable that the presence of senior medical officers should make itself *felt* in the wards, if for no other reason than to dissipate, or still better to prevent, the idea that the heads of departments are indifferent to the welfare of individuals. We know that such indifference does not really exist, and that the doctors themselves are the first to groan under the burthen of lengthy returns, hitherto considered indispensable; and we feel sure that senior medical officers will be the first to welcome the recommendation that they should be provided with army clerks.

We pass on now to what seems a minor matter, but still it has great importance. It is the question of diet for the sick and wounded. If our readers will look at the diet table for hospitals they will find them ranging from "tea," "milk," "low," "chicken," "half," "roast," "entire," up to "varied." Now, in the field these diets cannot be adhered to, and, of course, every patient who does not get all the articles enumerated in a particular diet considers himself ill-used and starved. And there are times when he has really cause to complain. The evidence given by Brigade-Surgeon Clarke on this matter is of great practical value. He says (9617): "I think the question of the diet in the field hospitals might be improved. At present the movable field hospitals draw only 'soldiers' rations,' and I think we might have two diets—a full diet for men who can eat, and a beef-tea or soup diet for men who cannot manage solid food. I think every movable hospital should have that. A man who is shot in the mouth cannot eat solid beef, and it is no use giving it him; and, *vice versa*, a man who is shot in the foot can eat a good solid meal. I would not have more than two complete diets. I think they would be ample." Turning for a moment to the recommendation with regard to medical organisation in time of peace, page xli. of the Report, No. 10, says:—"Opportunity of practice with war equipment during peace should be afforded both as regards field hospitals and bearer companies." It seems strange that such a suggestion should be required, and we can only wonder at the evidence given by a medical officer of experience, when asked (9206), "Have you ever seen a field hospital mobilised in time of peace?" The answer was, "Never." It seems clear that the training of the Army Hospital Corps has been of too military a nature, and we agree with the opinion of the Committee, expressed at page xxxvi., par. 216—"We consider the military training of the Army Hospital Corps should be limited to the ordinary drill of a recruit without arms."

The last recommendation of the Committee is most important. It is No. 48, page xliii., and runs: "Voluntary aid in war to be taken into consideration, and a system organised for its proper utilisation." It is impossible

here to discuss the various plans for organising such a force as that alluded to by the Committee, but we may concede at once the value of the suggestion. We can agree with Lord Wolseley's remarks when addressing the students at the Charing-cross Hospital. "I cannot see," he said, "why there should not be in London, and also in the other towns, but especially in London, a Volunteer Medical Corps. . . . Remember, that though we have a large Medical Department, it is only just sufficiently large for our own Medical Department in peace, and in the event of war, or invasion, or any other difficulty overtaking us, which would require a large force of men to be put in the field, we have not now the medical officers in this country to supply the wants of that force."

In conclusion, we must say we are glad that Lord Morley's Committee met, and we congratulate them upon the result of their patient inquiries. We fully expect that improvements will follow the recommendations they have made, and that in future wars the medical officers will find their work more easy under improved arrangements in matters of detail. Still we must not expect too much. The Committee have vetoed one step which some consider a necessity for the due development of medical service in the field. The doctors are to have *no separate transport*, and we know that they have no separate commissariat. The Medical Department must be content to suffer in many ways. During war it will ever be the primary object to destroy men's lives, and not to save them; and the "art of healing" gets small chance of fair play until all the blows are struck, and the fight is over.

#### TESTAMENTARY CAPACITY.

"THERE is something both contemptible and frightful," wrote John Stuart Mill not many years ago, "in the sort of evidence on which, of late years, any person can be judicially declared unfit for the management of his affairs; and after his death his disposal of his property can be set aside if there is enough of it to pay the expenses of litigation—which are charged on the property itself." Had the distinguished moralist lived to witness the result of the action "Lindsey and another *v.* Carr and another," which was reported in the *Times* of the 6th inst., he would have seen reason to modify his opinion. "The testator," as the learned judge said in his summing up, "had been a man steeped in drink. He had had, as a result of his intemperance, fits of epilepsy some time before his death, and he had had delirium tremens in its worst form, it having reduced him to such a state of terror that he supposed imaginary beings to be pursuing him, and rushed at night out of his house to avoid them." How long this debauchery had been going on does not appear, but it is evident that to produce these symptoms, and to cause death, as it eventually did, it must have been pursued for months, and probably for years. The will was executed on January 30 last. On the following day the testator became violent, and had more fits. On February 2 he died. The will was executed under the following circumstances:—At seven o'clock in the evening of January 30, Mrs. Lindsey, an aunt of the testator, and one of the two chief legatees under the contested will, went out and bought a form of will. According to her evidence, she drew the will in question about midnight the same night at the testator's direction, he repeating, word by word, the phraseology of the form, and dictating the amounts and names that he wished to have set down. When the will was drawn three people entered the room, two of whom—the barmaid and potman of the testator—received small legacies under the will. According to Mrs. Lindsey, they happened to be passing at that moment, and



looked in casually; but they themselves state that she sent for them. All four agree that the testator was in a perfectly collected frame of mind, and Mrs. Lindsey further represents that he signed the will in his usual manner. One of the others—the only person present who did not profit under the will—states, however, that he propped the testator up in bed by putting one arm and his knee behind him, and, moreover, that he “steadied his (testator’s) wrist” while the signature was written. Mr. Shepherd, the testator’s medical attendant, stated that he had seen him in the afternoon and evening of the day on which the will was made, that the testator was “not in a condition to originate and sustain a connected train of thought, but that he might have been capable of a short mental effort”; he could not say that the testator gave him any irrational answers. The summing up of the learned judge was on the whole adverse to the will; but he concluded by saying, as of course he was bound to do, that the question of the man’s testamentary capacity was entirely one for the jury. The jury found that the will was duly executed; that the testator was of sound mind, memory, and understanding at the time the will was executed; and that he knew and approved of the contents. Upon this the judge pronounced judgment for the will, but allowed costs out of the estate.

Of the execution of the will thus legally validated, it must be said that had it been the plaintiff’s earnest endeavour to surround it with circumstances of suspicion, she could scarcely have been more successful in doing so. With the first portion of the finding of the jury we are not much concerned, but that the testator was found fit to make a will, shows that there is little ground now for the fear expressed by Mr. Mill. Here is a man within three days of a death which he has brought upon himself by excessive drinking, at the early age of twenty-eight. He is dying of the effects which this drink has wrought, not on kidneys, or liver, or stomach, but on his nervous system; and not on the subordinate portions of his nervous system, but, as his delirium and his epileptic fits show, upon that portion of his brain which is most intimately concerned with the intellectual faculties. On the evening before the will is made he is excited and wandering, and not in a condition to originate and sustain a connected train of thought. On the day after the execution of the will he is acutely maniacal and has several fits. The will is drawn up and executed at midnight—at that hour of the twenty-four when delirium *à potu* is commonly worst. Yet this man, who was wandering in the evening, and maniacal on the following day, is able at midnight to dictate the terms of his will in the legal phraseology of the form, and to apportion his wealth accurately among seven legatees, although at the same time his physical prostration is so great that he has to be held up in bed, and to have his “wrist steadied” while he signs his name! Such an intellectual feat is certainly surprising, but it sinks into insignificance beside that performed by the jury in coming to the conclusion that the testator was “of sound mind, memory, and understanding.” But, after all, no doubt he was so—according to the standard of the jury.

#### PRODUCTION AND PREVENTION OF CHOLERA.

EARL GRANVILLE stated in the House of Lords, last week, that he had received a letter from Sir William Gull, in which that gentleman assured him that the outbreak of cholera in Egypt was of a purely local character, and that there having been no epidemic in India, we had no reason to fear its importation into this country. We hope that it may not reach our shores, and we are far from wishing to create a panic, for such a state of mind is most unfavour-

able to calm and efficient action. But Sir William’s opinion is no more than that of a physician who has had no better opportunities for forming a judgment than any other of his professional brethren. The Egyptian epidemic is local only in the sense that, having been imported from some country (perhaps from India) where it is endemic, it has found a state of things consequent on a recent campaign, unusually favourable to its development—we mean land and water polluted by unburied corpses of man and beast, together with want, and other evils consecutive on war. There may have been no extraordinary epidemic of late depopulating the plains and cities of Hindostan, but cholera is never absent from India; and the pilgrimages, which far exceed in their magnitude and their horrors anything that ever was witnessed at Mecca, are invariably attended by an amount of cholera which in any other country would be deemed an epidemic. These pilgrimages are confined to no part of the land or season of the year; they are everywhere in constant operation, until scenes and consequences that would excite consternation elsewhere, cease by familiarity to be even noticed. It is thus only that we can account for the fact that many Indian surgeons question the propagation of cholera by human intercourse, and are inclined to seek the cause of its outbreaks on an unusual scale in aerial, terrene, or other meteorological conditions. The fact is, that they do not enjoy the advantages that we in Europe possess of tracing its progress under conditions analogous to those of an experiment admitting of exact scientific observation, but are in the same position that we are in with regard to measles, which we believe to be always propagated by infection, but the source of which we too often cannot trace. Cholera is contagious in the same sense as is enteric fever; i.e., the poison—bacterial, possibly—resides in the evacuations, and is occasionally inhaled, but more often imbibed through contaminated water. In India we have every condition requisite for its perpetual maintenance—a high temperature; a soil saturated with organic, and especially faecal matter, and a water-supply almost invariably of the foulest kind; a hundred million persons daily defæcating on the open ground, and often by preference in temporarily dry water-courses; heavy rainfalls from time to time sweeping the excreta into rivers, into which the carcasses of men and animals are thrown by thousands, the water of these or of tanks used for bathing constituting the drink of the whole population. Improved water-supplies, such as that now provided at Bombay, would do much to limit the ravages of cholera in the great cities, and among the European residents; but many generations must elapse before, if ever, the habits of the Hindoo population are changed. Besides pilgrimages, the countless fairs serve to maintain local foci of infection, whence the disease is carried in various directions; and the annual caravan of Afghan merchants, or Provindahs, slowly travelling from fair to fair through the cities of Northern India, easily convey it to Persia and to Central Asia, whence, as we have seen, it has so often entered Russia. Once imported into Europe, it depends on the sanitary surroundings whether it establish itself or no. The actual carriers are usually pilgrims, the lower class of seamen, and steerage passengers, dirty in their persons and their habits, their clothes and baggage also serving as fomites. If, as in the smaller towns and villages of Europe, the old system of cesspool and well is still in favour, nothing more is wanted than the arrival of an individual suffering from the initial symptoms to set up an epidemic like that of Altenburg in 1865. A supply of pure water removed from all possible means of pollution is the first requisite for prevention, and a well-constructed and arranged sewerage provides an additional guarantee.



In the immediate prospect of an invasion, the duty of the local sanitary authorities is to remove promptly and frequently all deposits and accumulations of organic matter from dustbins, yards, markets, and streets; to inspect and order the cleansing of all closets and water-butts or cisterns, providing for the decent maintenance of the same; to flush, say weekly, not merely the sewers, but the drains of courts, small streets, and tenement dwellings, the gutters and surface of streets, courts, and yards in crowded quarters; to rigidly inspect markets, shops, and especially coster stalls for the sale of food; to look up all overcrowding and occupation of cellars; to offer facilities for the speedy and gratuitous treatment of diarrhoea; and generally to give greater discretionary powers and liberty of action to the parish surgeons, medical officers of health, and sanitary inspectors, such as, with frequent meetings of the sanitary authority, should minimise the friction and delay. Whether disinfectants are supplied to the public or not, they should be encouraged rather to complain of offensive emanations and seek the removal of their causes, than to trust to masking them by carbolic acid and like substances. In seaport towns the port medical officer should, personally or by deputy, board and inspect every vessel arriving from abroad, and, regardless of clean bills of health, satisfy himself that the crew and passengers are free from suspicion of being already attacked. Whether they shall be passed at once or detained for a few days must depend on the time that has elapsed since the vessel left, or called at, an infected port. Ships on board of which cases have actually occurred should on no account be allowed to enter the port, but be ordered to land their human freight, and to undergo purification at some isolated part of the coast that shall have been selected as a temporary quarantine station. In every town where cholera has made its appearance, or which is specially exposed to risk, a building, or buildings if necessary, should be secured in central situations as a hospital. The instant a case is detected, whether by day or by night, it should be removed thither, the other male members of the family receiving (if of the indigent class) orders for admission to a common lodging-house, and the women and children to a refuge temporarily provided. The key of the room being taken by the sanitary inspector, it and its furniture should be thoroughly disinfected and cleansed; all bedding, clothing, and other articles which may have come in contact with vomit or excreta being inventoried, destroyed, and replaced by the local authority; after which the family may be allowed to return.

The success attending such measures was well illustrated under the direction of Dr. W. Budd and Mr. D. Davies in Bristol, and in St. Giles, London, under Dr. George Buchanan. Into the former town a number of cases were introduced from abroad and from London, and the disease raged at the village of Pill (practically a part of the port of Bristol, about six miles lower down the river), but not a single inhabitant of the town fell a victim. In St. Giles no fewer than eighty genuine cases of algide cholera appeared in as many distinct houses, and would naturally have acted as so many foci of infection, but, being instantly isolated, were not followed by others. On three occasions only, if we remember rightly, were the patients, being in more easy circumstances than the others, left to the care of their relatives; and in each of these the disease spread to other persons in the house, and in one to the laundrywomen who washed the soiled linen. The question of treatment we shall not attempt to discuss at present. In no disease is it more true that prevention is better than cure, since in few is the former more practicable or the latter more hopeless.

## THE WEEK.

## TOPICS OF THE DAY.

WE last week briefly noticed the opening of the Conference on Hospital Administration, held at the Society of Arts, under the presidency of Sir T. Fowell Buxton. The papers read during the two days the Conference lasted were as follows. The first general heading under which the special topics were grouped was Hospital Administration—the Governors and the Management of Hospitals. On these, Mr. B. Rawlings, Secretary of the National Hospital for the Paralysed and Epileptic, read a paper, the main proposition contained in which was the desirability of obtaining for hospitals a management stable in character and impressed with a sense of responsibility not as yet attained. Dr. J. Syer Bristowe, M.D., F.R.S., Senior Physician to St. Thomas's Hospital, contributed a paper on "The Best Form of Executive Government, *i.e.*, by Treasurer, House-Governor, or Medical Superintendent: Medical Representation in the Management." He explained the different systems which had been adopted at St. Thomas's, and maintained that the present one was the most satisfactory. The Conference next considered the question, "Can the system of free and pay beds be successfully applied to existing hospitals?" Papers *pro* and *con.* were read by Mr. Timothy Holmes, Surgeon to St. George's Hospital; Mr. J. S. Wood, Hon. Secretary to the Bolingbroke House Pay Hospital; and Dr. Fairlie Clarke. On the second day, Mr. H. C. Burdett read an exhaustive paper on "The Financial Difficulties of the Metropolitan Hospitals; their Causes and Probable Results," which gave rise to a lively discussion. Mr. Blair, Manager of the Leeds General Infirmary, read a paper contributed by himself and Mr. Howley, Secretary of the North Staffordshire Infirmary, on "The Differences between the Systems for Raising Income and Controlling Expenditure at the Metropolitan and Provincial General and Special Hospitals." Dr. J. B. Massiah and Mr. Leveson Scarth contributed papers on "The Relation of Convalescent Institutions to Hospitals"; and Sir Rutherford Alcock, K.C.B., and Mr. Nelson Hardy, each an important paper on "The Necessity for a Royal Commission of Inquiry,"—the latter gentleman urging that the largeness of the interests involved (1,000,000 patients annually, and £10,000,000 invested in London hospitals alone), and the corresponding magnitude of the evils of defective hospital administration, seemed to demand such an inquiry as would only be satisfactorily conducted by a Commission acting under the authority of the Crown. Before the close of the Conference the following resolution was adopted:—"That the Council of the Social Science Association be requested to invite the following attendants at this Conference to form themselves into a committee to consider what steps, if any, should be taken to secure combined action among hospitals, and to decide as to future conferences; and to take such other steps as may appear desirable." The names given comprised most of those who had read papers or taken part in the discussions, with power to add to their number.

The *Times'* correspondent in Egypt brings serious charges of neglect of sanitary precautions against the Government there. Travellers, he says, reported some weeks ago that the stench of Damietta was observable ten miles away; whilst the English residents at Mansourah months ago stated that the passage of dead animals down the river, five or six at a time, was evident to both eyes and nose. Until a few days ago Damietta was without doctors, medicine, or disinfectants. Prior to putting a cordon around the place, 10,000 people attending the fair there were allowed to disperse throughout the interior. Dr. Mackie is stated to have applied, through the Consulate, to the Principal Medical



Officer for information of the simplest description, and received a reply to the effect that that officer had no information. The same correspondent suggests that England should insist upon an efficient supply of doctors and medicines being sent to Damietta; the inhabitants should be removed and camped out in the desert, and kept within a strict cordon until the town has been purified—if necessary, by burning the infected houses.

The first installation of the new Order of the Royal Red Cross, founded by Her Majesty for ladies and nurses who have done distinguished service in tending sick and wounded soldiers and sailors, recently took place at Windsor. The party, which included Viscountess Strangford, Lady Loyd-Lindsay, and Mrs. Deeble, the head nurse at Netley Hospital, were presented to the Queen, who affixed the decorations, consisting of enamelled crosses attached to blue and red ribbons, upon the dresses of the recipients. Her Majesty appeared to take great interest in the accounts which she received from Lady Strangford as to the work done by the nurses. Under Class 4 of the Order, Viscountess Strangford and Lady Loyd-Lindsay received the decoration; and under Class 5, Mrs. Deeble, Mrs. Fellows, and Misses Caulfield, Stewart, Norman, Story, Wheldon, and Gray.

The monthly report of the Registrar-General for Scotland for May last shows that during that period there were registered in the eight principal towns of North Britain the births of 3956 children, and the deaths of 2780 persons. Allowing for increase of population, this latter number is 112 above the average for the corresponding month during the last ten years. A comparison of the deaths in the eight towns shows that the mortality was at the annual rate of 19 deaths per 1000 persons in Edinburgh and Aberdeen, 22 in Perth, 24 in Leith, 27 in Greenock and in Paisley, 29 in Dundee, and 32 in Glasgow. The miasmatic order of the zymotic class of diseases proved fatal to 545 persons, and constituted 19·6 per cent. of the whole mortality; this rate was, however, exceeded in Glasgow and Leith. Measles was the most fatal epidemic, having caused 211 deaths, or 7·6 per cent. of the whole mortality. Fever caused 23 deaths, of which 5 were tabulated as typhus (all in Glasgow), 17 as enteric, and 1 as simple continued fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 575, or 20·7 per cent. Those from consumption alone numbered 274, or 9·9 per cent. Two males and seven females were aged ninety years and upwards, the eldest of whom was a widow 103 years of age.

On Tuesday last Her Royal Highness the Duchess of Albany, accompanied by the Duke, officiated at the ceremonial opening of the Chelsea Hospital for Women. The building, which is on the south side of the Fulham-road, will provide accommodation for sixty-five in-patients, and is also possessed of an extensive and well-arranged out-patient department. It is built of red Mansfield stone, and the areas and mortuary are lined with glazed bricks. The Hospital is six storeys high, with store-rooms in the roof. It is of "fireproof" construction throughout, and is warmed by a system of hot-water pipes, though fireplaces are supplied in every room, because of their importance as ventilators. There is a corridor eight feet wide on each floor extending from north to south, communicating with balconies five feet wide which run the length of the building on the south front. The total cost of the Hospital is said to have been £18,082.

At the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last, it was reported that since the last meeting 20 fever patients had been admitted into the Board's hospitals, 3 had died, 15 had

been discharged, and 68 were still under treatment. In the small-pox hospitals 79 patients had been admitted, 7 had died, and 46 had been discharged. A letter from the solicitors of the plaintiff in the case against the Board regarding the Hampstead Hospital, offering a compromise, was ordered to be referred to a committee.

#### THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At a meeting of the Council of the Royal College of Surgeons, held on the 12th inst., Mr. John Marshall, F.R.S., of University College Hospital, was elected President of the College, in the vacancy occasioned by the retirement of Sir Thomas Spencer Wells, Bart.; and Messrs. John Cooper Forster (of Guy's Hospital) and William Scovell Savory, F.R.S. (of St. Bartholomew's), were elected Vice-Presidents. The recently elected new members of the Council, namely, Mr. Sydney Jones and Sir William Mac Cormac (both of St. Thomas's Hospital), were introduced, and took their seats. Mr. Edward Lund, Consulting Surgeon to the Manchester Royal Infirmary, was elected a member of the Court of Examiners, in the vacancy occasioned by the expiration of Mr. Timothy Holmes's term of office.

#### THE MEDICAL ACT AMENDMENT BILL.

ON Monday last the first, during the present session of Parliament, of those annual sacrifices on the altar of legislative necessity that are commonly known as "Massacres of the Innocents," took place in the House of Commons. Many Bills were ruthlessly sacrificed by the Prime Minister, some of which, as the Floods Prevention Bill and the Burghs Police and Health (Scotland) Bill, are sorely needed; and the fate of three or four other measures of importance was left undecided for the present. The Medical Acts Amendment Bill was included in the second rank of the measures which the Government still mean to proceed with, and still hope to pass. It cannot be said, however, that the prospect of the Bill becoming law is a good one. We fully believe that Lord Carlingford and Mr. Mundella earnestly desire that all the thought, time, and labour that have been bestowed on the measure shall not have been given in vain; and that the Prime Minister is alive to the importance of passing it. But August looms in the near distance, and there is a very considerable amount of business of primary necessity or importance to be got through before the House of Commons can arrive at the consideration of the Medical Acts Amendment Bill. Mr. Gladstone warned the House on Monday that, under the most favourable circumstances, the session could "not reach any but a late termination"; and on Wednesday he said that before Easter a whole month had been lost to the House through opposition offered to the Government, and now the House must pay the penalty—that is, must make up for its behaviour before Easter by sitting on through August if necessary. These things do not improve the temper of the House, and do not make members more likely to look with friendly eyes on measures of secondary importance.

#### TETANY.

At the meeting of the Medical Society of Vienna on May 25, Dr. N. Weiss communicated some interesting facts bearing on the nature of tetany (*Wiener Med. Woch.*, No. 22). He had collected from German literature thirteen cases of tetany which had followed the operation for extirpation of a bronchocele. From the table which had been drawn up it appeared that tetany had only been met with in cases of young women on whom total extirpation of the enlarged thyroid had been practised; that the nervous affection came on in the course of not later than ten days after the operation; that only



eight of the cases showed signs of damage to the recurrent laryngeal nerve; and finally, that five cases got well, seven died (two as a certain result of the tetany), and the remaining one still suffered from tetany three years after the operation. In three cases in which Dr. Weiss had the opportunity of performing a post-mortem examination, changes of a recognisable nature were detected in the grey matter of the anterior cornua of the cervical enlargement of the cord, and chiefly at the level of the fifth and sixth cervical nerves. The alterations observed were, briefly, swelling of the ganglion cells, with lateral displacement of the nuclei, vacuolation of the cells, atrophy and shrinking of the protoplasm and cell processes. In the discussion which followed, Professor Billroth contrasted and compared the characters of tetanus with those of tetany: he regarded the anatomical changes found microscopically in the grey matter of the cervical region of the spinal cord in tetany as probably of the nature of a direct continuation of the nutritive disturbance from the site of the operation. The proximity of the brain and spinal cord was an important factor, and it was not improbable that the neural changes occurred in all cases of removal of goitre, but it was suggested that they had to reach a certain degree of intensity before they could give rise to tetany. Professor Rosenthal remarked that vacuolation could be by no means characteristic of tetany, seeing that vacuoles were described in connexion with many nervous diseases.

#### THE EPIDEMIOLOGICAL SOCIETY AND CHOLERA.

ELSEWHERE in our pages our readers will find an abstract of a paper read at the last meeting of the above Society by Surgeon-General J. M. Cunningham on "The Sanitary Lessons of Indian Epidemics." The paper was prefaced by the reading of Dr. George Buchanan's "Memoranda concerning Cholera," which we published last week. In the discussion which followed, the President, Dr. Murray, Dr. Scriven, Mr. Edwin Chadwick, Dr. De Renzy, Sir Joseph Fayrer, and others took part.

#### THE NORTH-WEST LONDON HOSPITAL.

IN her capacity as patroness of the North-West London Hospital, in the Kentish Town-road, Princess Christian last week opened the new wing which has been recently built. This Hospital was started as a public institution in July, 1878, at first only out-patients being dealt with, but in the following September a ward for sick children was opened with ten cots, and, to meet the increasing demands for admission, wards for women and children were arranged in the adjoining house in 1879. The latest addition, which will raise the number of beds from twenty-four to fifty, is called the "Helena Wing," at the request of Her Royal Highness. A well-arranged out-patients' department and dispensary is provided on the ground-floor, the upper part of the building being occupied by two new wards, one for women and children, and the other for men and boys. The treatment of sick children will, it is announced, remain the chief characteristic of the Hospital. Towards the total cost of the new wing £1300 has been collected, leaving a balance of £700 still to be obtained; and the reliable income of the institution appears not to exceed £150, while the annual expenditure has been hitherto £1200. The financial position of the charity cannot at present, therefore, be considered very satisfactory. Whilst fully recognising the good intentions and the labours of those who have established and enlarged this Hospital, it may occur to people who study the subject that something like a crisis is approaching in the monetary affairs of the London hospitals in general. Up to the present it has been the

custom to devise and carry out enlargements and improvements, trusting that the funds to cover the increased expenditure would be sure to be forthcoming. But the financial position of nearly every hospital in the metropolis is just now the reverse of satisfactory, and it is much to be feared that, unless the flow of charity in this direction is largely increased, the powers of relief at the disposal of many of these institutions will have to be seriously curtailed; whilst the idea of levying a "hospital rate" on householders cannot be considered as having yet come within the range of practical politics.

#### ARBUTIN.

ARBUTIN is obtained from bearberry leaves—*Uvae ursi folia*. The therapeutics of the infusion of bearberry have long been known, and Dr. H. Menche has now given his experience of arbutin as a remedial agent (*Centralblatt für Klin. Med.*, No. 27). He finds that it acts in many cases as a valuable diuretic. Large doses may be administered without any ill effects. It passes out in the urine partly in the form of hydrochinon, which is closely allied chemically to phenol. Urine containing hydrochinon becomes, by standing, of an olive-green colour, just as happens in carboluria. Arbutin is of service in urethritis even of a specific nature. Brieger has employed a solution of hydrochinon as an injection in gonorrhœa, but the internal administration would seem to answer the same purpose. Arbutin is a glucosate (a compound of glucose with an acid—e.g., tannin), and occurs as fine white stable acicular crystals soluble in water, of neutral reaction, odourless, and of slightly bitter taste. The best mode of administration is in the form of powder dissolved in a tablespoonful of water. Patients did not complain of its taste.

#### THE METROPOLITAN BOARD OF WORKS' REPORT FOR 1882.

IN presenting the annual report of their proceedings for the year 1882, the Metropolitan Board of Works consider it appropriate to call attention to the remarkable growth and extension of their functions, as indicated by the number and variety of the statutes under which they act. In the year 1856 (the first of the Board's existence) there were only two Acts of Parliament conferring jurisdiction on the Board—the Metropolis Local Management Act, and the Metropolitan Building Act, both passed in the year 1855. The duties of the Board under the first of these statutes consisted mainly of making and maintaining main sewers, as distinguished from local sewers, which were placed under the control of the vestries and district boards; regulating the formation, width, and numbering of new streets; and acting as an appellate and controlling authority over the vestries and district boards. Under the second statute the Board was entrusted with the function of seeing that the rules laid down by Parliament to govern the erection of buildings throughout the metropolis were carried out. In the course of two or three years other Acts of Parliament were passed, extending the operation of the original statutes, and conferring new powers upon the Board; and as, with the progress of time, the range of questions brought within the province of municipal administration has been enlarged, the Board's powers and responsibilities have been increased, until they now embrace—in addition to what is provided for in the original statutes, and to great urban improvements, such as the river embankments and new streets, for which special Acts of Parliament have been passed—such various matters as the formation and maintenance of bridges over the Thames; the clearing of unhealthy and densely crowded areas; the acquisition and maintenance of parks, gardens, and suburban commons; the supervision of the gas and water supply, and of the construction of theatres and places



of public amusement; the extinction of fires and saving of life and property in case of fire; the regulation of tramways, of slaughterhouses, cowhouses, and dairies, and of places where offensive businesses are carried on; the prevention of contagious diseases among animals; and the regulation of the storage and sale of inflammable and explosive substances. It will, therefore, excite but little surprise when it is stated that the report under notice forms a small volume of nearly two hundred pages, since it has to record under each of the foregoing heads the transactions which have taken place during the previous twelve months. The Board, it should be stated, consists of a chairman and forty-five representative members elected by the authorities of the City of London, and the various parishes and districts of the metropolis, and, taking into consideration the number and diversity of the duties imposed upon it, it may be said to have performed its work fairly well. But it is constantly being suggested in Parliament that new powers be given to it, or fresh departments handed over to its jurisdiction, and it would certainly be wise to recognise at once that it has already quite as much to do as can be well done, however willing its members may be to accept additional control; and, if anybody doubts this, we would recommend them to go carefully through the report which is the subject of the present notice.

#### IS LUPUS TUBERCULOSIS?

At page 531 of our last volume we noticed some experiments performed by Pagenstecher and Pfeiffer on rabbits, which went to prove that lupus was practically a local tuberculosis. The only link in the chain which was then wanting, according to Pfeiffer, was the demonstration of bacilli in the growth of the human patient. He has recently finished up this point by finding the characteristic bacilli in two sections out of eight preparations made by freezing a portion of the new growth removed from the girl's conjunctiva, and cutting thin sections with the microtome. Only six to eight bacilli were found in one, and but two in the other preparation.

#### THE INFLUENCE OF SOCIAL POSITION ON THE DEATH-RATE.

SINCE the commencement of the present year the Registrar-General for Ireland has included in his weekly return a table showing, in five general classes and eighteen groups, the occupations or social position of the persons whose deaths are registered week by week in the Dublin Registration District, the annual death-rate represented by the deaths registered, the number of deaths at each of six periods of life, and the number from each of the principal causes of death. This table has already supplied some suggestive and instructive information. Thus, the second quarterly return for 1883 shows that in the thirteen weeks ending June 30, 1883, the number of deaths registered in the Dublin Registration District (the total area of which is 24,710 statute acres, and the population of which, estimated to the middle of this year, is 349,685) amounted to 2674—1294 males and 1380 females,—affording an annual ratio of 1 in 32·7, or 30·6 in every 1000 of the estimated population. The deaths in families of the “professional and independent class” were equal to an annual rate of 24·3 per 1000 of the persons in that class; in the “middle class” the death-rate was 26·8 per 1000; among the “artisan class and petty shopkeepers” it was 23·6; and in the “general service class” and the “inmates of workhouses” combined it was 38·6. Among the last division—“inmates of workhouses”—taken separately, the rate was as high as 43·6 per 1000 per annum; whereas among the subdivision of the professional and independent class entitled “persons of rank and property, not otherwise described” (numbering 19,030), the death-rate was only 18·5.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-sixth week of 1883, terminating June 28, was 1042 (589 males and 473 females), and of these there were from typhoid fever 44, small-pox 10, measles 31, scarlatina none, pertussis 22, diphtheria and croup 42, erysipelas 7, and puerperal infections 3. There were also 39 deaths from tubercular and acute meningitis, 187 from phthisis, 31 from acute bronchitis, 66 from pneumonia, 98 from infantile athrepsia (45 of the infants having been wholly or partially suckled), and 36 violent deaths (29 males and 7 females). The mortality continues to diminish, and is now at about its normal mean. Such diminution has occurred in all ages, even infants of less than a year old, who are generally much tried by the heat of the season, having participated in it. There is some fear, however, that typhoid fever is about to increase its ravages, for not only have there been 41 deaths registered in place of 36 of last week, but the admissions to the hospitals for it have risen from 99, 96, and 72 in the three preceding weeks to 122, while the reports of private practitioners show a similar increase of cases. Infantile athrepsia is more rare than is usual at this time of the year. The births for the week amounted to 1213, viz., 610 males (435 legitimate and 175 illegitimate) and 603 females (440 legitimate and 163 illegitimate): 91 infants were either born dead or died within twenty-four hours, viz., 44 males (34 legitimate and 10 illegitimate) and 47 females (31 legitimate and 16 illegitimate).

#### THE DETENTION IN HOSPITALS ACT.

THE text of the Government Bill for the detention in hospital of women affected with contagious diseases has now been made public. The preamble sets forth the desirability of making a provision similar to that which already exists for workhouses, under the Poor-Law Amendment Act of 1867. The Bill then proposes to authorise the chief medical officer of a certified hospital within the specified limits to detain there any woman who is therein, and is suffering from a contagious disease, until he certifies that she is in a condition to be discharged. The patient is, however, to have a right of appeal to a justice, and he will order her discharge if he be satisfied upon reasonable evidence that she is free from a contagious disease. If a woman leaves a hospital without authority she may be apprehended without warrant, and taken back to the hospital by any person authorised by the chief medical officer. When a woman has been under medical treatment in a certified hospital, she will, on her discharge, be entitled to be sent, without expense to herself, to her ordinary place of residence, if that be situate in any of the scheduled places, or within ten miles of them. Efficient inspection of the certified hospitals is to be provided by the Admiralty and the Secretary for War, and the same authorities are to make regulations for the preservation of order in them. Finally, the Bill proposes to repeal the Contagious Diseases Acts, 1866-69. The places brought within the scope of the measure are—Aldershot, Canterbury, Chatham, Colchester, Dover, Gravesend, Maidstone, Plymouth, Devonport, Portsmouth, Sheerness, Shorncliffe, Southampton, Winchester, Windsor, Woolwich, the Curragh, Cork, and Queenstown.

#### THE NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 10th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £90 was distributed among the several applicants.



## ON WORD-BLINDNESS.

OF the many varieties of aphasia there is none, perhaps, which admits of being studied so completely as the condition known as word-blindness. In the ordinary forms of aphasia the difficulty, or sometimes impossibility, of comprehending what the patient wishes to make known, constitutes a source of error which cannot be altogether excluded. In the case of word-blindness, however, this difficulty does not arise, and a scientific investigation of the nature of this symptom is in consequence possible. In the *Progrès Médical*, Nos. 23 and 24, there is a lecture by M. Charcot on this somewhat rare symptom. The patient whose case formed the basis of the lecture was a man, aged thirty-five, with no known tendency, hereditary or acquired, to nervous disease. The commencement of his illness had been sudden—loss of power on the right side of the body being the first thing noticed, followed in a few minutes by loss of consciousness. On coming to himself again he found that he had right hemiplegia and aphasia. When he came under M. Charcot's observation, some months later, these symptoms had mainly passed off; he had, however, right lateral hemiopia, and he could not read; he could write well, and seldom made a mistake, but could not read what he had written even just before. In order to make out the writing he was obliged to form each letter separately with his finger on a piece of paper, and pronounce it to himself as he went along, and in this manner he could spell out words; if his hands were placed behind his back he still traced out the letters with his finger in the air. He experienced much greater difficulty in deciphering printed letters than ordinary handwriting. Thus this patient had no loss of memory for words, no loss of understanding—he understood what was said to him and what he said to others, and what he wrote, perfectly, only he could not interpret the words which he could nevertheless see quite distinctly. After alluding to the previously recorded cases in which the symptom had been noted, M. Charcot pointed out that the inferior parietal lobule was most probably the seat of the lesion in such cases, and that the theory of such a localisation received confirmation rather than otherwise from the coexistence of the hemiopia, for when this had been present as a result of cortical cerebral lesion, such lesion had usually been found to occupy very much the same area. As regarded the exact pathological change in this instance, he thought the probable sequence of events had been plugging of the Sylvian artery and its branches from some cause which could not be determined, and that the first three branches had recovered, the fourth or parietal remaining impervious. We ought to add, in conclusion, that the patient improved very much under treatment, so that at the end of a month he was able to read just twice as fast as he had been able to at the commencement.

## THE NIGHTINGALE FUND.

THE report of the Nightingale Fund for the year 1882 shows that there were 32 probationer-nurses in the school at St. Thomas's Hospital on January 1, and that 36 were admitted during the year, making a total of 68. Of these, 9 resigned or were discharged as unsuitable for the work, and 32 completed their year's training and received appointments. There remained in the school on December 31 last year 27, of whom 10 were special or lady-probationers, and 17 nurse-probationers. Two of the probationers were dismissed after nearly completing their year of training in consequence of their refusing to accept the situations provided for them by the Committee. The Fund possesses invested capital to the amount of £51,200, yielding an in-

come of £1591; payments by special probationers amounted during the year to £456, and the balance from the previous year was £1350. The total of the expenses was £2047, including £114 paid in gratuities to certified nurses; and thus a balance of £1556 was left at the end of the year. The number of probationers (*viz.*, 32) who completed their course of training and became certified nurses was larger than in any previous year. From the opening of the school in June, 1860, to the end of 1882, a total of 686 candidates have been admitted; and 414 have left the school, after completing a year's training, as certified nurses.

## THE AMERICAN MEDICAL ASSOCIATION.

THIS body held its thirty-fourth meeting at Cleveland, Ohio, under the presidency of Dr. John Atlee, June 5 to 8, which seems to have been fairly successful without being in any wise remarkable. The President, regarding himself as a "rare specialty, namely, in being a graduate of sixty-three years' standing," made his address consist of an interesting reminiscence of the American medical celebrities whom he had known during that period. Washington has been chosen as the place of meeting for 1884, and Professor Austin Flint was chosen President-elect with enthusiasm. The *Transactions* of the Association are to be discontinued—their place to be supplied by a weekly *Journal of the American Medical Association*, to be published at Chicago, under the editorship of Dr. Davis.

## ON THE QUESTION OF OPERATIVE PROCEEDINGS IN DISEASES OF THE LUNGS.

IN continuation of a former contribution on this subject in the *Nordiskt Medicinskt Arkiv*, Dr. Bull, of Christiania, communicates, in a recent number of the same journal, an interesting case bearing upon the above question. He also gives a brief review of the literature relating to the operations hitherto performed in diseases of the lungs, together with some observations on the indications connected with the opening of tuberculous cavities, and he draws attention to some new possibilities of limited expiratory expansion of the pectoral wall. The case was that of a man, twenty-nine years old, who entered the State Hospital of Christiania, exhibiting all the signs of advanced pulmonary tuberculosis, such as hectic fever, violent cough, abundant muco-purulent expectoration, emaciation, and anæmia. In the first, and partly in the second left intercostal space, external to the left sternal border, there was observed during the fits of coughing a considerable and clearly limited expansion of the pectoral coverings, which circumstance was not observed in tranquil breathing. This limited expiratory expansion was considered due to a superficial cavity adherent to the thorax and, perhaps, ulcerated by the pleural adhesion. Viewing the possibility of the suspected cavity offering an advanced process of ulceration; of the secretion, incompletely expectorated, flowing into the neighbouring bronchi; considering that the fever and the cough were partly relieved by the opening of the cavity externally by means of drainage and disinfection, and that the expiratory expansion in front might perhaps indicate a commencing perforation of the thoracic wall;—taking all these matters into consideration it was determined, with the consent of the patient, to try the operation. This was accordingly performed, and after the perforation of the thoracic wall the finger could be introduced into a small empty cavity, limited on all sides by smooth walls, and the base of which was formed by a solid elastic tissue. There was no sound of air entering or going out. The day after the operation, during a fit of coughing, there was a sudden discharge by the wound of a liquid like that of expectoration, and this discharge



continued abundant, but without relief to the patient, and death ensued in six days. On post-mortem examination the left lung was found to be separated almost entirely from three to four centimetres from the thoracic wall, and there were only a few filiform adhesions with the upper parts. There was fibrinous pleurisy and a little pus in the pleural cavity. At the apex of the lung there was a large superficial cavity. In other respects in both the lungs there were the usual indications of phthisis. The differential diagnosis between a cavity and a pneumothorax in cases such as the above cannot be made with certainty, and considering the possibility of mistake, Dr. Bull advises that pulmonary operations should always be performed with the aid of antiseptics, so that if the incision reveals a pneumothorax the wound may then be closed and the operation be regarded only as "diagnostic." Dr. Bull has found in medical literature the records of nineteen cases in which the opening of pulmonary cavities has been undertaken. Five of these, however, are imperfectly reported or the diagnosis was too doubtful to be of any service. Of the rest of the cases, two were instances of bronchiectatic cavities, one was a case of bronchiectatic cavity and a cavity consecutive to pneumonia, five were cases of pulmonary abscess, three of pulmonary gangrene, two of tuberculosis, and one of echinococcus of the lung. The results of the operations were as follows, viz.:—Cases perfectly cured, two; very marked improvement, two; more or less relief, seven; no ill consequences, one; cases made worse, two. As to the tuberculous cavities, experience is almost entirely wanting as to the effect of artificial pulmonary fistulæ, and it belongs to the future to demonstrate whether an operation of that kind is more dangerous in phthisical patients, but even when this proceeding might appear to be without danger, it should not be performed at a too advanced period of the disease.

THE QUEEN has been graciously pleased to confer the honour of knighthood upon Mr. Edwin Saunders, F.R.C.S. Eng., who has held the office of Surgeon-Dentist to Her Majesty for thirty-seven years.

If we are not misinformed, Her Majesty the Queen is shortly about to confer a mark of her Royal favour on a distinguished member of the medical profession who has been for several years one of her household in Ireland.

THE French Government have just appointed Madame Frary Gross to be a "Chevalier" of the Legion of Honour, in recognition of the great devotion she showed as director of the Hotel-de-Ville Ambulance during the siege of Paris, twelve years ago.

THE Home Secretary has consented to receive a joint deputation from the Canterbury, Dover, Maidstone, Eltham, Sheerness, and other Boards of Guardians on the subject of the Contagious Diseases Acts. The deputation will include also representatives appointed by the municipal authorities of the various Kentish towns affected by the withdrawal of the Acts.

It is understood that the orders of the Local Government Board on the steps to be taken to prevent the spread of cholera will be considered at a meeting soon to be held at Whitehall, at which Sir William Jenner, Sir Joseph Fayrer, Sir Lyon Playfair, and Sir Edmund Currie have been invited to meet representatives of the Medical Department of the Local Government Board, and of the Home Office, the Foreign Office, and the Customs.

THE Hospital Sunday Fund for this year now amounts to about £32,600. Among the contributions lately received are—From the Chief Rabbi, £664 (including collections from the Great Synagogue, £247; Central Synagogue, £104; North London Synagogue, £33; Bayswater Synagogue, £74; New West-end Synagogue, £69; St. John's-wood Synagogue, £33; and New St. Helen's Synagogue, £21). From the West London Synagogue (Rev. Professor Marks) the sum of £197 has been received; and the Corporation of the City of London have sent in £105.

WE learn from Paris that M. Pasteur has offered to organise a mission for investigating the cholera in Egypt; and that the Hygiene Commission approved and recommended his plan. The mission will consist of MM. Roux and Thuillier, of Pasteur's laboratory; M. Strauss, of the Faculty of Medicine; and M. Nolaco. M. Pasteur has written to Lord Granville to ask the good offices of the English in facilitating the work of the mission in Egypt.

A CONSIDERABLE increase of the cases of typhoid fever in Paris is reported. There were 122 admissions to the hospital in the week ending the 30th ult., against 72 the previous week; and the deaths were 41, against 36.

It is stated that as many as 270 candidates have entered their names for the final examination for the diploma of membership of the Royal College of Surgeons.

THE Industrial Dwellings Company, of which Sir Sydney Waterlow, M.P., is chairman, have obtained more than an acre of land in Soho, having frontages to the new street that is to run from Charing-cross to Oxford-street. On this space the Company propose to erect nearly 1000 rooms.

THE London Sanitary Protection Association will hold a meeting in the Kensington Town Hall on Tuesday, the 17th inst., at 8.30 p.m., when the newly elected President (the Duke of Argyll) will take the chair, and will deliver an address on House Sanitation.

At a meeting of the managers of the Royal Infirmary of Edinburgh, held on Monday last, Mr. J. M. Cotterill, M.B., C.M. Edin., F.R.C.S. Edin., University Clinical Surgery Tutor, was elected to the post of Assistant-Surgeon to that charity.

MR. JONATHAN HUTCHINSON has retired from active duty as Surgeon to the London Hospital, his term of office having expired, and has been appointed Consulting Surgeon. We believe that arrangements are contemplated by which the services of this distinguished surgeon as a teacher will not be entirely discontinued. Mr. Hutchinson will be succeeded in the care of in-patients by Mr. McCarthy, at present surgeon in charge of out-patients.

WE are informed that Dr. Hilton Fagge has been appointed Physician to the Deaf and Dumb Asylum.

WE understand that a vacancy will shortly occur on the medical staff of St. Bartholomew's Hospital, owing to the acceptance by Dr. Reginald Southey of a Commissionership in Lunacy, in place of Dr. Robert Nairne, resigned.

THE Library of the Royal College of Surgeons will be closed for the purposes of the examinations on Friday, the 13th, and Saturday, the 14th inst.



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF LORDS—THURSDAY, JULY 5.

THE Medical Act (1858) Amendment Bill was read a third time.

HOUSE OF COMMONS—FRIDAY, JULY 6.

*The German Vaccination Laws.*—Dr. Cameron asked the Secretary to the Local Government Board whether his attention had been called to a statement in the *Königliche Privilegierte Berlinische Zeitung* regarding certain tables recently issued by the German State Health Office, illustrating the working of the Vaccination Laws in Germany; and whether he would have the goodness to procure a copy of the tables for the library of the House?—Mr. G. Russell replied that the attention of the Board had not previously been called to the tables referred to, but they had communicated with the Secretary of State for Foreign Affairs, with the object of obtaining a copy for the library of the House.

*The Dwellings of the Poor.*—Mr. Ashmead-Bartlett asked whether the Government would give an opportunity during the present session for a discussion upon the dwellings of the poor, and especially for the consideration of a scheme for the provision of houses with land and recreation-ground in the rural suburbs of the large towns.—Mr. Gladstone said, in reply: I am bound to say that the Government could not engage, in the present state of public business, to set aside any other business for the purpose of such a discussion, or, I may say generally, of any discussion, except it has reference to legislation of the present session.

*The Cholera in Egypt.*—Lord E. Fitzmaurice, in reply to questions by Sir H. Wolff and Sir W. Barttelot, said if the House desired information as to the measures taken for the suppression of the cholera in Egypt, he would give a short statement on the subject on Monday. The Government had not heard of any deaths from cholera in either the Egyptian or the English army.

MONDAY, JULY 9.

*Surgeons of the Irish Prisons.*—Mr. Gibson asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Government had arrived at any decision respecting the claim of the surgeons of Irish prisons for additional remuneration for the extra work thrown upon them under the Peace Preservation Acts; whether the Irish prison surgeons were not promised by the Executive that they should be suitably remunerated for this extra work; and whether any other offer had been made to them on the subject.—Mr. Trevelyan replied: The Government have decided that claims of this character, merely on the ground of a temporary increase of work, cannot be entertained; but the cases of any prison officers who can show that they were put to any expense will be specially considered. I am not aware that any promise of extra pay was made to the prison surgeons, or that any special offer has been made to them.

*Cholera in Indian Ports.*—In reply to Mr. O'Donnell, Mr. Cross said cholera had been little, if at all, more prevalent in Indian ports during the last six months than it usually is. In Calcutta the deaths in April were 459 against 318 in April, 1882; in May they were 383 against 380 in May last year; and in June 150 against 254. The health-statement of Indian ports is regularly telegraphed fortnightly for communication to the Sanitary Boards in the Levant; and the cholera deaths in Bombay are telegraphed weekly to the Consul-General at Cairo. Her Majesty's Government had objected to the imposition of special measures of quarantine against arrivals from India with clean bills of health, and having no suspicious cases on board after a voyage of ten days.

*The Cholera in Egypt.*—Lord E. Fitzmaurice, replying to a question from Sir H. Wolff, said: The measures taken for preventing the spread of cholera in Egypt are under the control of the Central Government in Cairo. Sir E. Malet states that the Sanitary Board at Cairo is composed of native and foreign doctors, among whom is Dr. Grant, the medical adviser of Her Majesty's Consular Court. The Board have from the beginning of the outbreak met every evening, in conjunction with the Minister of the Interior and General Baker; and Sir E. Malet states that doctors, medicines, and food have been supplied to the infected places, and he expresses the opinion that the Government

have done all in their power to stamp out the disease. As regards Alexandria, Consul Cookson states that a Commission has been hard at work inspecting nuisances and suggesting sanitary measures, and he trusts that good results will follow the appointment of sub-committees, to whom the Government have left, on Mr. Cookson's advice, great latitude of action. An independent British Committee has, moreover, been formed to visit the houses of British and Maltese residents. The infected houses have been isolated by cordons of police. With regard to the steps taken by Her Majesty's Government, a Departmental Committee has been appointed by the President of the Local Government Board on cholera precautions generally, and a competent medical authority is about to be despatched to Egypt. The Egyptian Government has been informed of the desire of Her Majesty's Government to afford them every assistance.—Mr. O'Donnell inquired whether the late decrease in the number of deaths at Damietta was not due to the fact that many thousands of persons had taken refuge in the surrounding villages, and whether unregistered deaths were not now occurring everywhere over a large space of country in small villages: to which Lord E. Fitzmaurice replied that he could not give detailed information as to the latter point; but that as to the former, it appeared that the cholera cordon had been in some places so strictly kept that painful scenes had resulted. In Damietta the daily number of deaths had slowly but steadily diminished from 141 on July 1 to eighty-eight on the 8th. In the Mansourah district the daily number of deaths from cholera had decreased from sixty-eight on July 5 to forty-eight on July 8. In three other districts there had been a slight increase of mortality.

TUESDAY, JULY 10.

*Precautions against Cholera.*—Viscount Folkestone asked the President of the Local Government Board what precautions were proposed to be taken to prevent the importation of cholera by the ships carrying the Indian mails and other ships arriving in England through the Suez Canal or from any Egyptian port.—In reply, Sir Charles Dilke referred to the opinions of Mr. Simon on the subject of quarantine. He said: In the eighth annual report of the Medical Officer of the Privy Council (Mr. Simon), laid before Parliament at the time, and again in 1879, will be found a full examination of the value of quarantine as against cholera. Mr. Simon pointed out that "a quarantine which is ineffective is a mere irrational derangement of commerce, and a quarantine of the kind which insures success is more easily imagined than realised. . . . Quarantine purporting to be effectual cannot rest satisfied with excluding from entry such persons as are obviously sick, but indispensably for its purpose must also refuse to admit the healthy till they have passed in perfectly non-infectious circumstances at least as many days of probation as the disease can have days of incubation or latency. . . . In 1832-33, when some sort of quarantine was adopted here, the results gave no encouragement to a repetition. . . . The thought of quarantine in England became more and more obsolete, and the possibility of enforcing it, if ever so much desired, fell more and more towards nothingness. . . . I daresay that quarantine in England was never otherwise than very lax. At all events, for many years past it has, in a medical sense, been abolished." Quarantine, meaning by the word a system which professes to prevent the entry into a country of persons coming from another country until assurance is attained that no infection can be introduced by those persons, is not now regarded by the English Medical Department as capable of fulfilling its intentions, and its least failure to exclude infection is seen to make the whole system irrational. Accordingly, England, which long ago abandoned the system as of any avail against cholera, has now the consent of most European nations (as expressed by their delegates to the Vienna Conference of 1874) in preferring for the defence of her ports another system, which, under the name of "medical inspection," aims at obtaining the seclusion of actually infected persons, and the disinfection of ships, and of articles that may have received infection from the sick. The details of this system are set out in an order of the Local Government Board, in which provision is made for the detention of ships at appointed places, for the visiting and medical examination of ships and passengers, for the removal to hospital of persons suffering from suspected cholera and for their detention,



for the destruction of clothing or bedding, and for the purification of the ship. Ever since 1873 this country has been thoroughly prepared for the invasion of cholera. Mail steamers coming from India through the Canal in quarantine, and not touching at any infected port, would not be suspected by us. Steamers coming direct from Alexandria, where there has been one reported case, would, owing to the length of the voyage, also seem safe enough should no sickness have shown itself during the voyage.—Lord E. Fitzmaurice, in reply to Mr. O'Donnell, said: It does not appear whether or not the outbreak of cholera at Menzaleh and other localities has been occasioned by fugitives from Damietta; but a report on the outbreak of cholera in Egypt, from a Mr. Miéville, British Delegate to the Egyptian Marine, Sanitary, and Quarantine Board, is on its way to this country, and will be presented to Parliament as soon as it is received. Her Majesty's Government have not directed the employment of the British army of occupation for the purpose of restraining the spread of the disease. They attach more importance to sanitary precautions than to cordons of soldiers and police.

### MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

In the interesting annual report of the Conservator of the collection, just read to the Council of the Royal College of Surgeons, a valuable suggestion has been made by Sir James Paget for extending still more the usefulness of the Museum. The following is an extract from his letter on the subject:—

"It has often seemed to me that the value of the pathological collection of the College would be increased if, together with the specimens displaying the chief facts of morbid anatomy, there were also a collection of drawings, photographs, and other such illustrations of the same or similar facts. However well any morbid changes of structure may be shown in specimens long preserved, some of the characters which they presented in their recent state are lost. Many or all of these may be shown in well-executed coloured drawings, or even in photographs. Such illustrations cannot indeed take the place of specimens or be substituted for them in the study or teaching of morbid anatomy, but they may be very usefully supplemental. In the hope that the Museum Committee will approve the formation of a collection of original drawings and other illustrations of morbid anatomy to be kept in the Museum, I have presented a set of thirty-six boxes, of appropriate size and construction, in which such a collection may be safely kept. I would suggest that the collection should consist of original drawings, plain or coloured, and of photographs, whether of specimens in the Museum or of any other rare or interesting illustrations of pathology, but not of published plates, such as may be found in the Library, unless it be in instances in which such plates represent specimens in the Museum. There are already in the Museum numerous original drawings, chiefly collected by Sir Astley Cooper, with which the proposed collection may be commenced; and it may fairly be hoped that, if the Committee should approve the design of thus increasing the value of the Museum, and should make it known, there are many Fellows and Members of the College who will gladly become contributors to it."

It cannot be doubted that the Fellows and Members of the College will respond liberally to this suggestion. It may be added that the unwillingness of Sir James Paget to accept the honorarium accorded to him for the delivery of the first Bradshawe Lecture in December last was the occasion of his seeking some means by which the Museum might be benefited by the amount; and, after some consideration, he finally determined upon this excellent way of carrying out his views. The inauguration of this collection of drawings will therefore always be associated with that eloquent exposition of the value of pathological museums.

Amongst the additions to the Physiological Series are a very interesting series of dissections made by Mr. William Pearson, illustrating Mr. Power's course of lectures on "The Lacrimal Apparatus and Accessory Organs of the Eye," prepared mostly from animals procured for the purpose by Mr. Power, and which form a permanent addition to the Museum of considerable value and interest.

### PRECAUTIONS IN DUBLIN IN VIEW OF A THREATENED INVASION OF CHOLERA.

An adjourned meeting of the Public Health Committee of the Corporation of Dublin was held on Saturday, the 7th inst., for the consideration of the duties which would devolve upon the Committee in the event of the epidemic of cholera spreading to this country from Egypt. The chair was occupied by Mr. E. D. Gray, M.P.; and Dr. F. Xavier MacCabe, Inspector of the Local Government Board for Ireland, was in attendance.

The following resolutions were adopted:—

"That the Superintendent of Cleansing be requested to supply to this Committee a list of the houses with ashpits attached, of which he complains, and that proceedings be taken forthwith to have them structurally altered, and that a report be weekly presented to the Committee of the steps taken to have this order carried out."

"That the Cleansing Committee be requested to consider whether by any means it would be practicable to undertake the cleaning of all the yards attached to tenement-houses: that the loan of £3000 for reconstruction of ashpits be taken up at once, and lists be submitted on Tuesday next of the houses to be dealt with thereunder. That Dr. Cameron specially instruct the inspectors to watch carefully the sale of fish, vegetables, and fruit, with a view to prevent the sale of such when unsound and liable to give rise to diarrhoea."

"That the Cleansing Committee be informed that if the daily cleansing of the yards not now dealt with cannot be carried out by any other means, this Committee would endeavour, under the circumstances, to advance £500 for that purpose out of some of the funds at its disposal, to be repaid by them hereafter."

"That the question of the condition of the Disinfecting Chamber, and of the means of conveyance of the sick to hospital, be brought before the Committee on Tuesday."

"That the attention of the Boards of Guardians of the North and South Dublin Unions be directed to Section 149 of the Public Health (Ireland) Act, 1878, under which, in the event of an outbreak of any dangerous infectious disease, the duty of dealing with same would probably be transferred from this Committee to them, and that they be requested to take the subject into consideration, and be informed that this Committee will be ready to consult with them at any time they may think it desirable, with a view to securing joint and effective action."

"That their special attention be directed to the desirability of providing for hospital accommodation in the event of an outbreak."

The Committee then adjourned.

In response to an invitation from the Sanitary Authority of the city of Dublin, the King and Queen's College of Physicians in Ireland have appointed a committee to report on the preventive and curative measures to be taken in connexion with the threatened approach of cholera.

**OPERATION IN PERITONITIS.**—In the number for May 26, the *Revue Médicale* relates a case which it designates "as an example of how, in the domain of affections of the abdomen, surgery, for the great benefit of mankind, is making daily encroachments on the territory of its old sister, medicine." A delicate child of eight years of age, who had not had any serious illness before, came under the care of Dr. Reibel, who reported the case to the Strasbourg Medical Society. It was the subject of a generalised peritonitis, which by the tenth day exhibited a great amelioration. On that day a relapse ensued, and the disease assumed a more and more menacing character, so that the child's death seemed to be imminent. Dr. Reibel resolved to evacuate the effused liquid from the cavity of the peritoneum, and wash it out with a carbolic acid solution. The abdomen having been opened, no liquid was found in the peritoneum, but this was washed out with tepid carbolic acid, and the child eventually recovered. An example of peritoneal tolerance, at all events!



## THE WORK OF THE ARSENICAL COMMITTEE OF THE NATIONAL HEALTH SOCIETY.

SOME time since we referred to the fact that the National Health Society had appointed a Committee of medical men and chemists to carry on the inquiry into the effects on health of arsenical pigments in wall-papers and articles of domestic use, which had been begun by the Society of Arts and by the Medical Society of London, but allowed to drop. The whole of the evidence collected by those committees was placed in the hands of that of the National Health Society, and they have added and are still adding thereto.

But the chief aim they have set before them is to obtain some legislative regulation of the use of poisonous colours in the arts, on the lines of that which already exists in Germany, Sweden, and some other countries. Since, however, a correspondence which passed between the British and Swedish Governments two years ago showed the imperative necessity of having some recognised and authorised test, not only of sufficient delicacy, but certain to give the same indications in different hands and in all circumstances, the Committee, after many hundred trials of arsenic in different combinations, and in the presence of anilin, etc., determined on adopting that of Marsh with slight modifications, as the use of a chimney of non-conducting material, to concentrate the heat on one part of the tube, and irrigation of the outer portion to insure complete deposition of the arsenic. The chimney and its cover are made out of the ordinary Daniell's cell. Another modification is employed when sulphur is found to be present, consisting in the interposition of a tube containing charcoal and sodic carbonate, with an asbestos plug to retain the sulphur, which would interfere with the reaction. This is the only test on the evidence of which they would allow proceedings at law to be instituted; but for use in ordinary business transactions they approve of Reinsch's, conducted in the manner they prescribe. Their reports, with full instructions for the conduct of both tests, have recently been published in the *British Medical Journal*. Of course it is absolutely essential that the zinc should be chemically pure, and they recommend the use of the bars, made and guaranteed free from arsenic by Messrs. Johnson and Mathey, of Hatton-garden.

Following the suggestion of the Swedish law, they specify the superficies of papers or weight of other objects to be subjected to analysis, and draw the line between permissible and dangerous impurity in these words: "No paper should be passed as 'non-arsenical' unless when treated as hereafter described it fail to yield a mirror, in a tube one-eighth of an inch internal diameter, sufficient to cut off at any point a black line on a white ground technically known as thick rule (eight to pica)."

Meanwhile, through the courtesy of Earl Granville, the Committee have ascertained the extent and nature of the existing laws on the use of poisons in every European country, an abstract of which by the Secretary forms one of the reports of the Committee. In some there are no laws whatever; in others, laws corresponding to our Sale of Poisons Act. In several their use is forbidden in connexion with articles of food only. In Holland, anything, however dangerous, may be sold, provided the buyer is fully informed of the nature of the article, though heavy penalties are incurred by neglect to give such notification. The Imperial law of Germany and that of Sweden appear most complete and judicious, the former being almost identical with that which has been in force in Prussia for many years. The Imperial law of May 14, 1879, deals with the adulteration or falsification of food and drink, the sale of diseased or unwholesome meat, and of dangerous petroleum; and regulates also the manufacture and sale of all articles of domestic use, of whatever kind, likely to affect injuriously the health of individuals. Section 5 leaves it to the Emperor in Council to issue orders from time to time, prohibiting the use for any particular purposes of such colours, substances, etc., in the preparation or packing of the articles in question as may be deemed injurious to health, and to forbid the employment of any process or mode of manufacture calculated to produce such effect. In accordance with this section the Emperor and Council issued last year an order which, as subsequently amended, came

into force on April 1 last, specifying the colours to be considered poisonous, and forbidding the use, not only of arsenical colours, but of "colours prepared with arsenic," or of anilin colours if so prepared, in paper-hangings and all articles of dress. Only the fear of injury to the German trade in toys led to the suspension for the present of the clause prohibiting the use of any poisonous pigment in their ornamentation. Some of the largest German anilin works have already abandoned the use of arsenic as a reducing-agent, and where it is still employed the most stringent—we might almost say vexatious—enactments regulate its use, and have indirectly led to the substitution of other reagents.

Unfortunately for the German manufacturers and the purchasers in other countries, no such restrictions exist in France, where the wall-paper manufacture has during recent years attained enormous proportions.

The Committee having become possessed of so much information, purpose the drafting of a Bill on the subject, but are at present undetermined as to the form it shall assume, some members being inclined to limit its scope to arsenical fabrics, papers, and toys, while others are in favour of a more comprehensive measure on the German plan; for the difficulties in the way of the latter course are not so great as might at first sight appear. Pigments highly dangerous when in the form of water-colour may be harmless enough in oil paints, and insoluble bodies (non-volatile) in ordinary circumstances may be volatilised by heat, as, for example, vermilion or cinnabar in candles. A little study, guided by the existing laws of other countries, would soon decide such details, and we have already had too much of piecemeal legislation to risk adding more.

## FROM ABROAD.

### MANAGEMENT OF RINGWORM OF THE SCALP.

IN an article on "Management of Ringworm of the Scalp" (*Phil. Med. News*, March 17 and 24), Dr. Van Harlingen, the Chief of the Skin Clinic of the Hospital of the University, Philadelphia, especially dwells upon the mode of application of remedies to this disease. There is no want of good remedies for it, and the failures in their use arise for the most part in their unintelligent application. It must be borne in mind that we have to do with a subtle and penetrating fungus, which invades the hair-follicles in their lowest recesses, grows with persistent luxuriance, and refuses to yield to any remedy with which it is not brought into intimate contact. This may destroy any of the fungus existing on the surface, but exerts no influence on the germs which have penetrated into the follicles. It is to be remarked that while the hair-follicles of the scalp are often three-eighths of an inch in length, they are only about one-fiftieth of an inch in diameter; in other words, they are little wells, nearly twenty times deeper than they are wide. When it is considered that the greater part of this narrow calibre is usually filled by the growing hair-shafts, the attempt to cure an old case, when the fungus has penetrated to the very bottom of the follicle, by smearing an ointment, or swabbing a wash over the surface, is seen at once to be a vain effort.

Depilation, indeed, is usually the first procedure to which attention must be paid—not the indiscriminate pulling out of all hairs in the vicinity of the diseased patch, but the extraction only of those which appear to the naked eye, or aided by a small lens, to be diseased. The difference in appearance between a healthy hair and one which has been attacked by the ringworm-fungus may usually be easily recognised by the naked eye. In the first place, the diseased hair is broken off short, with a length of from one-eighth to a quarter of an inch. The spores, by their multiplication, have separated its fibres, and the texture of the hair has been rendered brittle. The broken end is split so as to look like an old birch-broom. It is enlarged to three or four times the diameter of the healthy hair, and its lustre is so diminished that it can be singled out of a group of hairs cut to the same length. The colour is usually lighter, and it has a dry, lifeless look. Depilation should be executed systematically, a certain limited area being selected for each



operation, and not a few hairs plucked here and there over a large surface. Immediately after depilation the parasiticide is to be applied, with the hope of penetrating the still yawning follicles.

It is to be remembered that the fungus tends to spread from being carried about from one part of the head to another by brushing, rubbing, or scratching the scalp, etc. For this reason it may be found at various points; and in examining the scalp in a case in which a single characteristic patch has been found, care should be taken to go over the whole head with a view of learning whether some incipient and superficial patches may not be found, the timely application to which of a parasiticide may nip the disease in the bud. The patient's head should be firmly held while the hair is turned back in successive rows from front to back, so that no point should remain unexamined. Every diseased patch should of course be made the subject of active treatment; but some parasiticide should also be kept in contact with all parts of the scalp, in order that the floating fungus may have no opportunity to alight on an unprotected spot. It is too often supposed that treatment need be applied only to the characteristic ashen-grey, slightly raised patches, with their goose-skin-like arrangement of broken stumps, which go to make up the typical picture of ringworm of the scalp. But the fungus must be looked for in all parts of the scalp, where its presence may be indicated by a few scales like a small round patch of dandruff, with perhaps a single stump of a diseased hair, or even one or two of those black dots in the scalp, which are the stumps broken off even with the surface, and which form the most troublesome points to reach with parasiticides. Now and then an isolated diseased stump may be found among healthy hairs, and this, unless looked for, may become a focus of disease. One of the mistakes made is having the scalp washed too often, as the parasiticide should be left undisturbed. The longer it remains on the skin, the more it is likely to penetrate to where it is needed. Once in two weeks is often enough to wash the scalp in an average case.

"In order that the remedies may be properly applied, the hair must be shaven, or at least cut very short. My own custom is that the head be kept closely shaven for a week or so, the remedy being regularly applied during that time, and that the hair be then permitted to grow for a day or two, in order to take account of progress, and to see what proportion of diseased hairs still remain. Of course, the limited locality where depilation is being practised must be left unshaven, so that the hairs may grow long enough to admit of their being readily plucked. It is generally best to apply remedies with a mop or sponge tied to the end of a stick, because the finger is scarcely firm enough to be of service. The scalp, it must be remembered, is not so sensitive as other parts of the body, and will bear with impunity an amount of rough handling which would prove injurious elsewhere. Ointments, as well as washes, may thus be applied with advantage. I am accustomed to use mops made of old-fashioned candle-wick tied to the end of a stick the size of a crow-quill, and five inches in length. These are made for me in quantity, and, as they cost next to nothing, may be thrown away as used. Of course, the scalp must not be made sore, and when this occurs, treatment must be suspended, and valuable time is lost. There is a great deal of difference in individuals as to the sensitiveness of the scalp. An application which will agree with one child, and which may be rubbed in most vigorously with entire impunity, will in another, by its mere application in the gentlest manner, give rise to violent inflammation. In some the scalp is so sensitive, especially when the ringworm has lasted some time and has been much treated, that none but the mildest remedies can be tolerated. It is always well to begin a little cautiously in severe cases, or in those of long standing, and it is never safe to send a patient away for some days or weeks with a new remedy the effect of which on the case has not been tested.

"Ringworm of the body is very apt to go along with ringworm of the scalp, and, on examining a patient for the first time, the body should be carefully looked over as well as the head. Also, the body should be searched with care from time to time while the patient is under treatment. There is a good deal of difference in individuals as to the aptitude of catching ringworm. One may be in the midst of floating spores in the air of a schoolroom where the disease is rife without coming to harm from it, while another seems to

offer the conditions needed for the growth of the fungus, which is continually springing up on some new part of the skin at the same time that, under treatment, it is being stamped out in another. In my experience, children with light, thin hair are more apt to show this susceptibility, while dark-haired children seem, as a rule, less prone to contract ringworm, and more easily get rid of it. Weakly and scrofulous children are also much more prone to contract it in a stubborn form; and this lends an indication for internal treatment, which experience shows to be useful. I refer to the employment of cod-liver oil, which is often brought into use with advantage in the treatment of chronic and inveterate ringworm. A course of oil seems often to aid external treatment to a marked degree. Arsenic I do not think is so useful—at least it has not proved of much benefit in my hands, though others speak of its advantages."

Prominent among the applications is carbolic acid, which Dr. Van Harlingen not only uses for the destruction of the parasite in the diseased patches, but also as a preventive in checking the spread of the fungus to healthy parts. He rubs a mixture of one part of carbolic acid with from three to six parts of glycerine into the whole scalp (excepting the affected patches) every day, this not only tending to destroy the fungus, but also to prevent its spreading to other persons. For a carefully cleansed scalp becomes covered with fine epidermic scales as soon as it is dry, and these branny scales float about in the atmosphere, transporting the contagion to others. The patient should therefore not only wear a linen cap always, but should also have the scalp constantly saturated with carbolised glycerine. A stronger carbolised glycerine is applied to the patches themselves by means of a swab or with a bit of flannel on the end of the finger. Glycerine has much penetrative power, carrying the carbolic acid with it, and with it alone Dr. Van Harlingen has sometimes cured very severe cases. Occasionally he uses a blistering fluid, especially when the disease is recent and tolerably extensive, but superficial, and when the fungus has only penetrated the follicles to a short distance. Several coats of a rather strong cantharidal collodion are painted over the diseased patches on the freshly shaven scalp, not extending over more than from three to four square inches at one sitting. On removing the crusts, after the collapse and drying of the blister, a large number of diseased stumps come away, the roof of the dried blister serving as a depilatory to a certain extent. The milder carbolic wash may usually be immediately applied after the removal of the blister. In more inveterate cases the oleate of mercury (6 per cent.) may be mixed, seven parts to one of acetic ether. This gets down to the roots of the hair more quickly than any other application. There are many other parasiticides—as thymol, boracic acid, picrotoxin, iodine (alone, or combined with tar or sulphur), mercurial preparations, chrysarobin, etc.—which may prove very useful; and when one that has been thoroughly used fails, another can be used. In order to prevent the passage of the disease to other children, isolation should be observed; but it is not communicable to adults, or only in the form of ringworm of the body, which is readily curable. The best preventive of extension is to keep the child's scalp saturated with weak carbolised glycerine; and when other children are unavoidably exposed to the chances of contagion their hair should be kept cut short, their scalps thoroughly washed daily, and an application of carbolised glycerine in the proportion of one part to ten made immediately afterwards. The patient should constantly wear a linen cap, and the greatest care be taken to disinfect by dry heat the various articles of clothing that cannot be boiled, or which it might be inconvenient to throw away. When the coat-collar (which is a very frequent nidus for scales dropping from the head) is of cloth it should be temporarily covered with some linen or cotton fabric which can be washed. It must be borne in mind that ringworm not infrequently arises from children playing with mangy dogs.

"It may be thought," Dr. Van Harlingen observes in conclusion, "that in the foregoing remarks on the management of ringworm of the scalp I have gone too much into what appears to be trivial detail; but I am convinced that this is necessary, inasmuch as we constantly see failure to cure cases where suitable and efficient remedies have indeed been prescribed, but where sufficient care has not been taken to have them properly applied. The affection is a stubborn one, as from four to six months at least are required to



effect a cure. In well-marked cases the friends of patients should be told this beforehand to prevent misapprehension. A more favourable prognosis is almost sure to lead to disappointment. When an apparent cure has been reached the patient should still remain under the oversight of the physician for some months, and a very careful search should be made from time to time with the view to discover the presence of scurfy patches with broken-off hairs or the black dots marking diseased stumps. A spontaneous cure sometimes occurs after the lapse of years, as the patient reaches adult life. The disease is rarely encountered in persons over twenty-one years of age."

## REVIEWS AND NOTICES OF BOOKS.

*On Curvatures and Disease of the Spine.* By BERNARD E. BRODHURST, F.R.C.S., Surgeon to the Royal Orthopædic Hospital and to the Royal Hospital for Incurables; Consulting Surgeon to the Belgrave Hospital for Children. Third Edition. London: J. and A. Churchill, 1883. Pp. 120.

NINETEEN years have elapsed since the second edition of this work appeared, but the author has not added much to what he then published. In this, as in the last edition, the greater part of the book is occupied with a description of lateral curvature, its causes and treatment. The views of Judson and Meyer are discussed and rejected, and the author adheres to the opinion that the majority of cases of lateral curvature result from obliquity of the pelvis produced by inequality of the lower extremities from flat foot, genu valgum, rickets, etc. The use of Sayre's plaster of Paris jacket for this deformity is emphatically condemned, and most surgeons will cordially agree with this. Mr. Barwell's sloping seat is also rejected, consistently with the author's views of the causation of lateral curvature. Removal of the exciting cause, well-adjusted spinal supports, and suitable gymnastic exercises are the modes of treatment that are recommended.

In this edition three short chapters have been added, on spinal disease, including sacro-iliac and coccygeal disease; diagnosis; prognosis and treatment. The author disapproves of Sayre's jacket for angular curvature. He regards the preliminary suspension as a recurrence to Glisson's barbarous practice in the seventeenth century; and insists that the jacket not only harbours vermin, but also seriously interferes with respiration. Dr. Sayre admits that when the thorax is thus firmly secured, manual pressure on the perineum will produce a feeling of suffocation, and "therefore in some cases it will be necessary for the patient to sit on a chair with a hole in the seat, like a close-stool." The practical inconvenience of this jacket is certainly not exaggerated, and many surgeons will share the author's preference for treating spinal disease by rest in the recumbent posture, and by suitable spinal supports which can be changed and readjusted from time to time. This book is a very well written expression of the author's opinions about spinal curvatures and their treatment, but does not add anything to what is known upon the subject.

*On the Pathology of Bronchitis, Catarrhal Pneumonia, Tubercle, and Allied Lesions of the Human Lung.* By D. J. HAMILTON, M.B., F.R.C.S. Eng., F.R.S. Eng. London: Macmillan and Co. 1883. Pp. 240.

DR. HAMILTON has long been known as an industrious and trustworthy observer in the field of pathology, and anything that he brings forward would be sure to command and deserve attention. The volume before us is in great measure composed of papers that appeared a few years ago in the *Practitioner*. The subject treated of is one of extreme importance, owing to the very great frequency of pulmonary affections in this country; and, so far as we know, it has not hitherto been described in so exhaustive and masterly a manner as in the present work. It is a book that should be read by all who take any interest in lung affections, and the great question of the essential nature of tubercle.

One of the earliest changes in acute bronchitis is the desquamation of the columnar epithelium, which is not replaced so long as the bronchitis lasts; not that the reproduction of epithelium is altogether stopped, but the cells

are formed and thrown off so rapidly that there is no time for the formation of the complete columnar epithelial cell. These catarrhal cells when set free are more or less rounded, and are apt to undergo fatty degeneration. Dr. Hamilton lays especial stress on the fact that they are of epithelial origin, and are not proliferated connective-tissue corpuscles escaped on to the surface, for the very good reason that the basement membrane forms an impenetrable barrier through which nothing can pass. This membrane is found at this stage of the disease to be greatly swollen and oedematous, and if these catarrhal cells really passed through it, they ought sometimes to be found embedded in its substance in transit, which Dr. Hamilton assures us he has never succeeded in doing.

On examining the deeper layers of the mucous membrane it is seen that the bloodvessels are dilated, and that the inner fibrous coat is infiltrated with cellular structures, the smaller of which may have been derived from the blood, but the larger ones are derived from fissiparous division of the flat endothelial cells which line the lymphatic vessels and plasma spaces normally existing in this area. These cells are found in rows, making their way outwards along the peribronchial lymphatic vessels between the cartilages and glands to join the outer fibrous coat.

In chronic bronchitis the basement membrane plays quite as important a part as in the acute disease. Dr. Hamilton says, "I believe that in this, as in acute bronchitis, nothing of a cellular nature ever gets from below on to the free surface. It seems to form an impenetrable barrier to the exit of leucocytes or other cellular structures. . . . It maintains its invariably homogeneous aspect, without there being a single break in its continuity." He likens the basement membrane to a fascia which determines the direction that pus shall pursue.

The changes that take place in the muscular wall of the bronchus in chronic bronchitis are compared to the changes which take place in the arterial system when there is some impediment to the flow of blood. During the prolonged expiratory effort made by a patient with chronic bronchitis in a fit of coughing, a great strain is put on the bronchi and air-vesicles. The latter, as we know, give way and become dilated, as also do some of the minute bronchi, but in others of these the lumen is contracted instead of being dilated, owing to the hypertrophy of the walls (and especially of the muscular walls) of the bronchus—a good instance of increased development to meet the needs of increase of function. In cases of chronic bronchitis associated with chronic interstitial pneumonia, this hypertrophy does not occur, the wall of the bronchus being much thickened by a cellular effusion, which by pressure has caused atrophy of the muscular fibres. As regards chronic bronchitis (so-called) dependent upon valvular disease of the heart, the author does not admit that the lesion is an inflammatory one at all, the bronchial irritation being purely mechanical, and due to the great capillary congestion in the mucous and submucous layers. As regards the deposits of pigment which take place in the lungs of miners, and the mode in which they produce bronchial catarrh, the author has something to say. In the first place the pigment is most abundant round the branches of the pulmonary artery, but it may be found round some of the most minute bronchi. The course taken by the pigment particles is that they penetrate the infundibula, air vesicles, and minute bronchi, and thence pass into the lymphatics, more especially the larger perivascular branches; thence they reach the lobular septa, the deep layer of the pleura, and finally the bronchial glands. Since, then, the bronchial mucous membrane is not pigmented, what is the cause, Dr. Hamilton asks, of the great frequency of chronic bronchitis amongst those subject to this condition? The answer is simple. The branches of the pulmonary artery become plugged by the development of the pigment in their walls; hence a difficulty in the circulation; but at the same time the lymphatics are also more or less obstructed, so that two potent causes are at work to bring about and keep up an oedematous condition of those structures which will most readily yield, i.e., the mucous membrane. The subsequent stages of the desquamation and proliferation of epithelial cells will take place precisely as in simple bronchitis. The causes of bronchiectasis are stated to be the traction of cicatricial tissue on the walls of the bronchi, forced expiratory efforts, atmospheric pressure when there is extensive collapse elsewhere, and the accumulation



of catarrhal products within a terminal bronchus. We cannot do more than call attention to the excellent chapter on interstitial pneumonia as a complication of bronchitis; even those who are not prepared to accept the author's views in their entirety will find it well worth reading. In speaking of vesicular emphysema, the author notes that during a prolonged expiratory movement the blood contained in the heart and large vessels is driven out, leaving the portions of lung in the neighbourhood less supported than usual, and these portions accordingly become over-distended.

The second part of the book is devoted to the subject of catarrhal pneumonia and tubercle. The former Dr. Hamilton describes at great length, dividing it into three stages—the first, or commencement, where the alveoli become filled with catarrhal products; the second, where these products undergo caseation; and the third, where breaking down of the lung tissue occurs, *i.e.*, actual phthisis, this not being of necessity associated with any deposit of tubercle. It is not very easy to understand the exact position which Dr. Hamilton takes with regard to the tubercle-bacillus. He accepts in a general way Koch's experiments—*i.e.*, that he has been able to isolate a bacterium, which, when introduced in the living body, is capable of producing a tubercular eruption. The objection on this head that other foreign bodies have been shown to be capable of doing the same thing, has been conclusively answered by Mr. Watson Cheyne since Dr. Hamilton's book appeared. But in his summary of conclusions in regard to tubercle we read, "the tubercle poison is generated *de novo* in a necrotic caseous tissue." If this stood alone it would be as decided an expression of opinion as it would be possible to imagine, but a few lines further on we are told, "the reason of certain caseous tissues throughout the body not propagating a tubercular eruption, is that by their position they are protected from external contamination." Contamination from what? we would ask. If from the tubercle-bacillus, then it can hardly be correct to say that tubercle is generated *de novo*, as he does just previously. Although we are much pleased with his chapter on the supposed contagiousness of phthisis, and admit that there is a good deal of truth in what he says, still we do not find anything to justify us in believing that a special organism like the tubercle-bacillus was not introduced into the body from without.

*Principles of Health in Childhood, Manhood, and Old Age.*  
By LOUIS KING, M.R.C.S. London: Hamilton and Adams. Bath: W. Lewis and Son. 1883. 8vo., pp. 185.

NOTWITHSTANDING the title of this book, the greater part of it is occupied with a multitude of *quasi* medical subjects treated in a popular manner, though the author assures us in his preface that he has carefully avoided making the volume one of domestic medicine—a class of work which, as he justly observes, "in the hands of most does more harm than good." Certainly no harm can result from a study of Mr. King's book, but we think that it might have been made at once more scientifically accurate and more instructive without detracting from its popular character. After about twenty pages of very elementary physiology, illustrated by several indifferent figures, he gives two sections on the sanitary arrangements of the house. We have no fault to find with the recommendations made, but the absence of all reference to the objectionable character not only of the common servants' hopper w.c.'s, but of the pan closet and its appurtenances, as well as to the possible unsyphoning of the traps of waste-pipes connected with a common stack, is a serious defect. We are surprised also to find Mr. King implicitly sanctioning the popular mistake that the dangers of arsenical poisoning are peculiar to *green* papers, and ignoring the possibility of the *tinted* lime-washes or distempers, that he proposes as substitutes, being as arsenical as the papers themselves. Good figures of the best forms of traps, closets, etc., such as could be borrowed from any illustrated trade catalogue, would have added greatly to the practical usefulness of this part of the work.

On the management of infancy and childhood our author's remarks are sound and sensible, but it is a great mistake to mention thrush as a disease *per se* to be cured by borax and honey(?) instead of insisting on its being a symptom or consequence of gastro-intestinal derangement, the cause of

which must be found and removed. He seems to be unacquainted with the recent investigations into the pathology of rickets, which he describes as due to a deficiency of mineral matter in the bone, to be treated by phosphate of lime alone; and of the value of cod-liver oil in rickets he seems unaware.

So, too, throughout the chapters on food and digestion, as well as in those on the prevention of disease, we look in vain for reference to recent authorities. The observations of Dr. Beaumont on digestion, as seen in Alexis St. Martin, are quoted as if they represented all that is known on the subject. To the labours of Bischoff, Pettenkofer, Voit, Hoppe-Seyler, etc., there is not a single reference; and Parkes is quoted only once, and then as Dr. Park! In the chapter on brain stimulants, intoxicating and non-intoxicating, we find the same ignorance or ignoring of the most recent research—Parkes, Anstie, and even Binz, are not mentioned; but several pages are filled with a historical account of tobacco, which might well serve as the introduction to a monograph, but is at best but useless padding here. In the conduct of the sick-room and his instructions to nurses, Mr. King is thoroughly at home, and we would like to see the latter reprinted in handbill form. The only exceptions we have to take are that he advises the treatment of burns and scalds with the old carron oil, as if he were unacquainted with the more elegant and sweeter alkaline boric lotions; and also that he gives sanction to the popular notion that the air of the sick-room may be advantageously "impregnated with some disinfectant." Such "disinfection" of an occupied room is a delusion and snare. The chapter on accidents and emergencies, with its illustrations, is compiled from the manuals rendered popular by the ambulance movement. We notice two extraordinary misprints, "carrion oil" and "embrasions." There is much, however, in this unpretending little book of sound advice which it would be well were more generally known and acted on.

*Insanity: its Causes and Prevention.* By HENRY PUTNAM STEARNS, M.D. New York: Putnam Sons. 1883. Crown 8vo., pp. 248.

It is difficult to know from what point of view this book should be regarded, or by what standard it should be judged. But for the author's statement that it has not been written for specialists exclusively—a statement implying that it has been written mainly for them—we should regard it as one of the large family of books of popular science which clamour for the attention of the intelligent but ill-informed layman. Regarded from this point of view it has some merits. It is pleasantly written, readable, and calculated to do good service among the laity by reiterated insistence on the plain principles of mental hygiene. The author deals with the evils of the forcing system of education, and the desirability of some more definite systems of industrial and moral education than exist at present; he considers the influence of heredity, of consanguineous marriages, of alcohol, tobacco, poverty, religion, sleep, etc., on the production of insanity, and in each case he arrives at a definite conclusion, which is expressed in plain terms, and is in accordance with the best knowledge that we have upon the subject. So long as these conclusions are sound, and are expressed without hesitation, and with that air of authority which carries such conviction to the mind of the inquiring layman aforesaid, they will doubtless answer a very useful purpose, and it does not perhaps greatly matter how they have been arrived at. But if we alter our standpoint, and estimate the work from the point of view of the specialist, either as a new contribution to our knowledge of the subject of insanity, or even as a summary of the knowledge already attained, it is impossible to attribute to it any merit. The conclusions reached are indeed sound, but they are reached through bad reasoning from false premisses, and the conviction is forced upon the reader that the author started with his conclusions ready made and foregone, and has unconsciously wrenched his facts and warped his arguments until they point as he desires. To take one instance out of many. "There can be little doubt," says Dr. Stearns, "that statistics would confirm the statement, that a large majority of those men who attain to success in any mechanical occupation are those who began their education in this way while young; the large majority of inventors of any kind of machinery are those who have thoroughly mastered the details of the



kind of work to be done in early life." This may be so; but it is surely worth while to show some basis of fact for a statement so sweeping, however little doubt there may be that, *a priori*, it ought to be true; and that some such basis is required is sufficiently indicated by the facts that Arkwright began life as a barber, Telford as a shepherd, the elder Brunel as a sailor, and that Palissy was thirty years old before he turned his attention to pottery. Statistics are proverbially untrustworthy, even when collected with the most anxious care: what reliance, then, can be placed upon conclusions drawn from statistics that are wholly imaginative?

Dr. Stearns starts with the assumption that insanity is much more prevalent among civilised than among savage communities; and then finds reasons for this state of things that are far from satisfactory to the civilised man. But in support of his initial assumption he does not adduce one authority or state one fact. It may or may not be true, but it is unwarranted, and we venture to say that it is at present unwarrantable; and rules of conduct founded upon a gratuitous assumption are untrustworthy in the highest degree. That the number of insane persons that exist among savage communities is extremely small, is, though not proved, yet extremely probable; but it does not, on that account, follow that the number of persons that *become* insane are any fewer, proportionately, than among the civilised. Not only would persons born with a defective organisation be, as Dr. Stearns points out, less likely to attain adult age in a savage community, but those adults who become insane, and who prove noxious (as insane people must do, either actively by theft, violence, or destructiveness, or passively by failing to support themselves, and so becoming a burden on the community), are likely to be disposed of by a very summary process; and thus, however large a proportion of the community become insane, year by year, they would never be suffered to accumulate so as to form an appreciable element in the life of the race. Granting, however, that insanity is of less common occurrence among savage than among civilised communities, what is to be said of Dr. Stearns's explanation? "One of the conditions of savage life is that of a *community of interests and supplies*, to a large extent [*italics in original*]. Families and tribes seek for, and possess, supplies in common; the weaker depend upon the strong, and the strong aid the weak, so that when privations . . . may come, they affect all together, and generally in like degree. The passion of avarice is in a latent state; those who are strong do not thrive at the expense of those who are less so." In civilised life, on the contrary, "*community of interests*, except in some very indefinite and limited measure, is lost sight of, and swallowed up in those of the individual." A more unfortunate statement, or one more completely at variance with fact, could scarcely be made. Of all the traits that mark the advance of civilisation, not one, it may be confidently stated, is more thoroughly characteristic than the progressive blending of the separate individual antagonistic interests into a common and harmonious interest—an interweaving that becomes ever more intricate and far-reaching as civilisation rises to higher levels. Savages who hunt over the same district compete with one another for their shares in the common stock of food, and each success of one diminishes by so much the chances of the others. The lucky or skilful hunter who secures a copious supply of food may, it is true, distribute among his fellow-tribesmen the surplus beyond what is required to satisfy his own immediate wants, but his interest is strongly opposed to his doing so, since the more he buries for future use the more secure he is against future privation; unless, indeed, he secures a *quid pro quo*, in which case the rudiment of a community of interests may fairly be said to be established; but by what means? Why, by barter—that is, by introducing the rudiment of civilisation. The statement that in savage communities "those who are strong do not thrive at the expense of those who are less so," is a little startling in the face of the custom that these stronger members have, in many tribes, of devouring the weaker ones when other provisions run short. Doubtless, these untutored savages ought to behave in the way that Dr. Stearns describes, and in a properly conducted universe no doubt they would do so, but in the meantime we have to deal with a world of actual facts, whose savages are no more like the ideal barbarians of Dr. Stearns than our boors and clod-

hoppers are like the shepherds of Watteau. Compare this very moderate degree of community of interests with that which obtains in a state of civilisation. The prosperity of a shopkeeper at the Cape is dependent upon that of his customers—the neighbouring diamond-diggers. Their prosperity again depends on that of the merchant who buys their diamonds, since if he becomes bankrupt their gains are diminished. The prosperity of the merchant depends on the demand for his goods—that is, upon the prosperity of the moneyed classes in England and other civilised countries; and these again depend largely upon the rents they receive, and therefore upon the prosperity of the farmers who are their tenants, or of the miners who work on their lands. Here we have an indefinitely large number of people, differing in race and language, living in distant parts of the earth, separated by thousands of miles, unaware of each other's existence, but all united by a "community of interests and supplies" such as has no parallel among savage races. It may be said that such a question as this has little bearing upon the subject of insanity, and that to object to errors of this nature is hypercritical, but the instance is selected not only because it is a very fair sample of the kind of reasoning in which the book abounds, but also to bring into prominence the fact, that to look upon insanity merely as a bodily disease to be treated, is to take a very imperfect view of its nature and associations. It has also a very important sociological aspect; and no one can hope to treat it adequately or satisfactorily who has not first acquired a competent knowledge of social science. Fortunately, the validity of Dr. Stearns's conclusions does not rest in the least either upon his facts or his reasonings. They are, for the most part, the common property and the common product of the whole body of men who are or have been engaged in the study of insanity and in the care of the insane. Their validity rests, not upon the truth of this or that set of facts, or upon the accuracy of this or that line of argument, but on the general bearing of a vast but vague body of evidence which has, half unconsciously, shaped the thoughts of men. If we take this fact or that, and examine it separately, its influence in shaping our beliefs is as inappreciable as the part taken by this wave or that in undermining a cliff; yet by the repeated impact of multitudinous waves the cliff at length falls, and by the accumulated stress of multitudinous facts belief is at length guided. To express these beliefs plainly, and put them before the general public in an attractive manner, is an unquestionable service, and this Dr. Stearns has done; but his dicta would have inspired far more confidence had he not, unfortunately, given his reasons for them.

*The Analysis and Adulteration of Foods.* By JAMES BELL, Ph.D., Principal of the Somerset House Laboratory.

Part II. London: Chapman and Hall. 1883. 8vo., pp. 179.

It is now a year since the first of these small volumes appeared, treating of the analysis and adulteration of tea, coffee, cocoa, sugar, and honey. The second, now before us, deals with milk, butter, cheese, cereal foods, and prepared starches. Although public analysts generally entertain a not unnatural jealousy and distrust of Somerset House, there is no doubt that the great experience enjoyed by the Principal of the Laboratory of that establishment gives a value to anything from his pen. The feeling we refer to is founded on the fact that the Adulteration Acts have constituted Somerset House a final court of appeal; although, skilful and honourable as the gentlemen employed there may be, it cannot be maintained that they are abler than many analysts outside. There is no analogy between their position and that of the judges in the superior courts, who are appointed in recognition of their eminent merit. Dr. Bell's work, however, is cautious and careful, and at once free from undue reliance on "ready methods," and from impracticable refinements in analysis. On page 6 we find two analyses of woman's milk, and a remark which throws some light on the readiness with which infants digest asses' milk, viz., that the casein in human and equine (he might have added asses') milk is not thrown down by acetic acid, but remains in a suspended and partly soluble state, which has led M. Husson to estimate the albumen in these milks higher than the casein. It is more probable that the casein is in a transitional and ill-defined condition.

Dr. Bell does not find Soxhlet's apparatus so satisfactory



in milk analysis as in the extraction of fat from seeds, etc. He always finds it give from '3 to '5 per cent. less than the usual process, though very convenient where great accuracy is not required. The same opinion he holds as regards Hehner's formulæ, which give too low an estimate of the fats, and one proportionately too high of the other solids. Sugar he determines by the polariscope, or volumetrically by a copper test. He gives some valuable instructions for the analysis of sour milk—a matter of great importance, since the public analyst may have to meet the objections brought against his results on the ground of the milk having altered by keeping. Some of the sugar is transformed into lactic acid, which, being soluble in ether, would be reckoned as fat unless previously estimated by neutralisation with soda. The sugar which has been converted into alcohol and carbonic acid is entirely lost, but this depreciation may be roughly allowed for. He does not believe in the increase of the fat at the expense of the casein, either in stale milk or in cheese, but attributes the apparent increase to the changes in the non-fatty solids, and to the greater ease with which the fat separates from sour milk. Some of the disputes between him and other analysts have, if we mistake not, arisen out of this question of sour milks. A table showing the composition of 240 genuine samples from single cows and 24 dairy samples gives in the former a range of fat from 1.92 to 6.87, of solids not fat from 8.00 to 11.27, and of ash .62 to .87 per cent., and in the latter of fats 2.95 to 5.14, other solids 8.50 to 9.91, and ash .63 to .78. In the face of these facts the difficulty of fixing a standard which shall be just alike to dealer and consumer is evident, unless milk far below the average quality is to be condemned on that ground, apart from proof of fraudulent watering—a solution of the question which does not seem to have occurred to him. A curious suggestion is put forward here, viz., that the addition of 1 per cent. of cane sugar to milk would render its dilution to the extent of 10 per cent. practicable without detection by the usual processes of analysis.

In the chapter on butter we find a full description of the methods employed in the past and present for its preparation, the several fatty acids and other constituents of butter, and the processes for its analysis. This, he maintains, has been recently brought to at least as high a degree of certainty, as regards adulteration, as has been attained with any other article of food. The specific gravity test, he asserts, is perfectly reliable, since while that of other animal fats varies from 902.8 to 903.8, in genuine butter it rarely falls below 910, and is generally between 911 and 913. This is the more important, for while formerly foreign fats were believed to betray their presence by a crystalline structure, precautions are now taken in the manufacture of butterine to prevent the fats assuming that form, but five samples of good butterine indistinguishable from ordinary butter had specific gravity of from 901.36 to 903.34 at 100° Fahr. When a more minute examination is demanded, the relative proportions of the soluble and insoluble fatty acids are equally characteristic. One fat only, cocoa-nut oil, would present any difficulty as regards composition and specific gravity, but even if the objectionable flavour it would impart could be got over, its low melting point (73° Fahr.) would distinguish it. The ratio of the soluble to the insoluble fatty acids serves also to distinguish the margarine cheeses from others, but, if sold under a correct description, Dr. Bell sees even less objection to them than to the factitious butters.

For the detection of alum in flour or bread our author recommends the logwood test, with this proviso: that though the absence of a permanent violet proves the absence of alum, other salts, as those of magnesia, may give a reaction not easily distinguished from that of alum itself. In the case of flour the previous separation of free mineral matters, by shaking with chloroform, is a useful preliminary measure. For the estimation of alum he adopts Dr. Dupré's method, but prefers precipitating the aluminium phosphate in hot water. For experimenting on known admixtures of alum he found that the whole was not thrown down in the cold. Wanklyn's "easy" process he condemns as giving results much above the truth.

Among the various modes of raising bread he omits that of Neville consisting in the addition of carbonate of ammonia, which is volatilised and entirely dissipated by the heat of the oven. The dark colour of brown bread is due, he states, to

the action of the cercaline on the starchy constituents, and may be prevented by previous heating of the flour. The so-called wheat-meal bread has, he admits, the advantage of being less irritating than common brown bread, from the grain being ground between steel rollers; but he disputes the higher nutritive value claimed for it, since he has found good household flour richer in nitrogenous matter than the entire grain.

The addition of rice flour he believes to be usually practised in poor quarters, to enable the bread to be sold at a lower price, and thereby to draw custom; he does not allude to its greater power of taking up water and increasing the weight of the loaf, or, as bakers say, the "yield" of a given quantity of flour, which is a fraud precisely like that of diluting milk. But the use of alum, even if proved to be not hurtful, he considers a clear case of adulteration, for, as he says, it is intended "simply to lead the public to infer from its whiteness and general appearance that the bread has been made from a better description of flour than has really been the case."

Under the title of "Prepared Starches," he treats of arrowroot, cornflour, sago, and tapioca, with full but not tedious accounts of their sources, history, and preparation. These chapters, as well as those on the cereals which precede them, are illustrated by admirable drawings of their microscopical appearances, at least as good as those of Hassall, and far superior to any in Wynter Blyth's work.

*Bericht der K.K. Krankenanstalt Rudolph-Stiftung in Wien vom Jahre 1881. Wien, 1882. Pp. 467.*

*Report of the Rudolph-Stiftung Hospital in Vienna for 1881, etc.*

THIS Report is compiled upon much the same lines as those furnished of some of our metropolitan hospitals by their medical and surgical registrars. There is first a general tabular statement of all the cases treated in the hospital, classified under the headings of the disease from which they suffered, and stating the numbers which were cured, relieved, were transferred elsewhere, or died. There is also a statement of the mortality per month from the different diseases. After this come more detailed statements of the numbers, ages, and such other general facts as can be briefly stated of the cases of each kind of disease. Finally come full accounts of selected cases of special interest.

The Report, like others of its kind, is a valuable source of reference for facts to illustrate the history of disease. It is suitable for this purpose rather than for continuous reading. It is well done, and a good type of this class of literature.

*The Alienist and Neurologist, April, 1883.*

A PAPER on some New Experiments in Muscle-Reading by the late Dr. Beard, reminds us of the great loss that science has sustained in his death, and of the suddenness of its occurrence. The paper itself is short, but is fully up to the standard of Dr. Beard's best efforts, and is most interesting. Guiteau is again the subject of two articles, neither of which will interest English readers. Dr. Hammond publishes here a chapter out of his new work on "Insanity," on the Influence of Age in Mental Derangement, which does not contain any important novelty. Studies on the Minute Anatomy of the Central Nervous System is the title of a long and very important article by Professor Golgi, of Pavia, translated by Dr. J. Workman, of Toronto. Professor Golgi claims to have discovered a method of staining by the combined action of bichromate [? of potash] and nitrate of silver, which enables the processes of the nerve-cells to be traced to a far greater distance than any method heretofore devised. The conclusions at which he arrives are too numerous to be detailed here, but generally it may be said that they confirm in a very striking manner those of the late G. H. Lewes, who is not, however, among the numerous authorities quoted by Professor Golgi. The translation is very imperfectly done. In his anxiety to produce a literal transcript of the author's words, the translator has allowed himself to ignore the structure of the English language, and often becomes almost unintelligible. Such an expression as "compléate nervous anastomose" is certainly neither English nor Italian, and we are reluctant to believe that it would be considered good American. We must protest also against the slovenly proof-reading of our



otherwise excellent contemporary. On the same page fibrils become first fibrils and then febrils. A division which proceeds dichotomously is said in one place to proceed discotomically, in another dicotomically. "Reflections on Mind," by Cecilia Dean, M.D., is a most curious production, which may be described, after the author's own style, as a blazing coruscation of simile and metaphor sewn together by an attenuated stream of reasoning. The remainder of the number is well up to the usual standard.

## MEDICAL NEWS.

**ROYAL UNIVERSITY OF IRELAND.—MEDICAL DEGREE EXAMINATIONS.**—The Examiners have recommended the Senate to admit the following candidates to the under-mentioned degrees:—

*The Degree of M.D.*—John Andrews, John Bolster, George Clarke, Horace Elliott, Thomas Farrelly, S. Forster Freyer, Thomas G. Garry, John B. Graham, James Herron, James C. Hood, A. M. Johnson, Isaac R. Lane, Bartholomew Mangan, C. M. Mitchell, W. J. Mitchell, John A. Nealon, Peter O'Connell, W. C. D. Prendergast, Richard J. Purdon, Stephen Scanlan, Michael J. Sexton, R. G. Thompson, Francis G. Tooker, James Torrens, George W. Weir.

*The Degree of M.B.*—Charles W. R. Wynne.

*The Degree of M.Ch.*—F. E. Adams, M.D.; C. W. Allport, M.D.; John Andrews, John Bolster, George Clarke, David S. Dunn, M.D.; Horace Elliott, Thomas Farrelly, S. F. Freyer, Thomas G. Garry, William Gibson, M.D.; John B. Graham, Michael Kelly, M.D.; Isaac R. Lane, Beattie M'Farland, M.D.; Bartholomew Mangan: W. G. Mitchell, Peter O'Connell, Patrick O'Gorman, M.D.; W. C. D. Prendergast, Richard J. Purdon, Stephen Scanlan, Michael J. Sexton, Simson Stuart, M.D.; S. A. L. Swan, M.D.; Charles W. R. Wynne.

*The Diploma in Obstetrics.*—John Bolster, Thomas G. Garry, William Good, M.D.; John B. Graham, Michael Kelly, M.D.; Isaac R. Lane, Bartholomew Mangan, W. J. Mitchell, W. C. D. Prendergast, Stephen Scanlan.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed their Primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 6th inst., and when eligible will be admitted to the pass examination, viz.:—

Archbutt, H. D., student of the London Hospital.  
Brown, W. H., of the University of Cambridge.  
Cunliffe, W. S., of St. Bartholomew's Hospital.  
Evans, G. E. A., of St. Bartholomew's Hospital.  
Fitzgerald, G. C., of St. Thomas's Hospital.  
Kauffmann, O. J., of the Manchester School.  
Lang, G. H., of University College Hospital.  
Marshall, A. L., of the University of Cambridge.  
Pagden, T. C., of St. Bartholomew's Hospital.  
Simpson, C. S., of Guy's Hospital.  
Spear, George, of St. Mary's Hospital.  
Thomas, J. L., of St. Bartholomew's Hospital.  
Ward, J. A., of Guy's Hospital.  
Weaver, J. J., of University College Hospital.  
Webster, P. S., of the London Hospital.  
Winter, H. E., of St. Bartholomew's Hospital.

Eight candidates were referred. The following gentlemen passed on the 7th inst., viz.:—

Anstie, W. C., student of University College Hospital.  
Bonnefin, F. H., of University College Hospital.  
Chamberlain, E. B., of the London Hospital.  
Christmas, C. D., of the Charing-cross Hospital.  
Christopherson, Cecil, of St. Bartholomew's Hospital.  
Cox, A. H. L., of King's College Hospital.  
Cressy, C. J., of Guy's Hospital.  
Davis, William, of the London Hospital.  
Farr, E. A., of Guy's Hospital.  
Harris, E. B., of Guy's Hospital.  
Jones, A. M., of Guy's Hospital.  
Richardson, W. J., of King's College Hospital.  
Robinson, B. T. A., of University College Hospital.  
Smith, L. H., of the London Hospital.  
Smith, R. G., of St. Bartholomew's Hospital.  
Spear, Robert, of St. Bartholomew's Hospital.  
Steman, R. S., of St. Mary's Hospital.  
Thompson, S. W., of the Charing-cross Hospital.

Four candidates were referred for three months, and two for six months. The following gentlemen passed on the 9th inst., viz.:—

Blake, E. S., student of Guy's Hospital.  
Blaxford, E. G., of University College Hospital.  
Capes, Robert, of Guy's Hospital.  
Cheale, Montague, of St. Bartholomew's Hospital.  
Cockerill, J. W., of St. Bartholomew's Hospital.  
Gee, F. W., of University College Hospital.  
Harries, W., of University College Hospital.  
Lewis, B. A., of the London Hospital.  
Lyons, Thomas, of St. Thomas's Hospital.  
Mellor, Sanderson, of the London Hospital.  
Parson, C. J., of University College Hospital.  
Pearson, G. K., of University College Hospital.  
Pool, W. E., of the London Hospital.

Reed, H. A., student of Guy's Hospital.  
Reynolds, G. H., of Guy's Hospital.  
White, J. H., of St. Bartholomew's Hospital.

Eight candidates were referred for three months. The following gentlemen passed on the 10th inst., viz.:—

Bathurst, Lancelot, student of St. Thomas's Hospital.  
Biddlecombe, E. H., of St. Bartholomew's Hospital.  
Buncombe, W. D., of the London Hospital.  
Crouch, C. P., of St. Bartholomew's Hospital.  
Fraser, P. W., of University College Hospital.  
Freeman, C. D., of the Charing-cross Hospital.  
Joly, J. E. N., of University College Hospital.  
Matthey, Arthur, of St. Bartholomew's Hospital.  
Preston, H. O., of St. George's Hospital.  
Rawlinson, G. E., of St. Thomas's Hospital.  
Seccombe, S. H., of Guy's Hospital.  
Speedy, R. G. D., of St. George's Hospital.  
Spoor, W. J., of the Middlesex Hospital.  
Whicher, A. H., of the Charing-cross Hospital.  
Williams, G. H., of St. George's Hospital.  
Wood, H. M., of St. Mary's Hospital.

Six candidates were referred for three months, and one for six months. The following gentlemen passed on the 11th inst., viz.:—

Buckland, S. C., student of the Middlesex Hospital.  
Coryn, H. A. W., of the Charing-cross Hospital.  
Davies, D. T., of St. Bartholomew's Hospital.  
Davis, Ifor, of the Middlesex Hospital.  
Dill, R. C. G., of St. George's Hospital.  
Finucane, M. I., of St. Thomas's Hospital.  
Pearman, T. E. A., of the London Hospital.  
Pickthorn, A. J., of St. George's Hospital.  
Raven, F. H. S., of St. Bartholomew's Hospital.  
Rusher, J. G., of the London Hospital.  
Sealy, F. M., of the Middlesex Hospital.  
West, W. P., of Guy's Hospital.  
Wreford, John, of the London Hospital.

Twelve candidates were referred for three months.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 5:—

Beardmore, George Russell, Upper-street, Islington, N.  
Bennett, Frederick Thomas, Instow, North Devon.  
Burrows, Walter Horncastle, Cobden-road, Chesterfield.  
D'Aguiar, João Gomes, Demerara.  
Gostling, Thomas Preston, Lady Margaret-road, N.W.  
Hentsch, George Frederick, Richmond-road, Barnsbury, N.  
Kitching, John Lea Walton, The Infirmary, Derby.  
Pauli, William Kirman, Luton, Bedfordshire.  
Power, Henry d'Arcy, Charlwood-street, W.  
Sutton, Henry Martyn, Lambeth Palace-road, S.E.  
Whicher, James Charles Francis, Westcombe Park, Blackheath.  
Willett, Edgar William, Great Ormond-street, W.C.  
Wingrave, Thomas, Hemel Hempstead, Herts.

The following gentleman also on the same day passed the Primary Professional Examination:—

Bradshaw, William Lucknow, Belfast Royal Hospital.

## NAVAL, MILITARY, ETC., APPOINTMENTS.

**ARMY MEDICAL DEPARTMENT.**—To be Surgeon-General—Deputy Surgeon-General Annesley Charles Castriot de Renzy, C.B., of the Bengal Army. To be Deputy Surgeon-General—Brigade Surgeon John Picthall, M.D., of the Bengal Army. To be Brigade Surgeons—Surgeon-Major George William Jameson, of the Bengal Army; Surgeon-Major Lindsay Frederick Dickson, M.D., of the Bengal Army; Surgeon-Major John Bilderbeck, of the Madras Army.

## DEATHS.

JEWESBURY, CHARLES FREDERICK, M.R.C.S., etc., late of Ceylon, at St. Ives, Cornwall, on July 3, aged 33.  
PRATT, CHARLES, M.D., at Appledore, North Devon, on July 9, in his 61st year.  
PRATT, EDWARD, M.R.C.S.E., etc., formerly Assistant-Surgeon R.N., at Swansea, on June 12.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**LEEDS PUBLIC DISPENSARY.**—Resident Medical Officer. Candidates must be qualified and unmarried. Applications and testimonials must be sent in before July 22, to Mr. H. Bendelack Hewetson, 11, Haughey-square, Leeds.

**MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY HATCH.**—Assistant Medical Officer. (For particulars see Advertisement.)

**ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.**—Junior Resident Medical Officer. (For particulars see Advertisement.)

**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS, E.C.**—Refraction Assistant. (For particulars see Advertisement.)

**STOCKTON-UPON-TEES HOSPITAL AND DISPENSARY.**—House-Surgeon (non-resident). Salary £200 per annum. Candidates must be doubly qualified. Applications, in writing, stating age, with recent testimonials (or copies), to be sent to the Secretary, not later than July 14.



**TORBAY HOSPITAL AND PROVIDENT DISPENSARY, TORQUAY.**—Junior House-Surgeon and Dispenser. Candidates, qualified in medicine and surgery, and registered, must be single and without the care of a family. Board, lodging, and attendance, together with fees from such pupils in dispensing as the Board may approve. Testimonials to the Hon. Secretary, W. H. Kitson, Esq., Hemsworth, Torquay, not later than July 16.

**TOWNSHIP OF MANCHESTER.**—Resident Assistant Medical Officer. Salary £140 per annum, with furnished apartments, fire, light, washing, and attendance. Candidates must reside in workhouse, be unmarried, registered, and possess medical and surgical qualifications. Applications, endorsed "Medical Appointment," to be sent not later than 18th inst., to George Macdonald, Clerk to the Guardians, Poor-Law Offices, New Bridge-street, Manchester.

### UNION AND PAROCHIAL MEDICAL SERVICE.

\*. The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

*Dewsbury Union.*—The office of Medical Officer for the Thornhill District is vacant by the death of Mr. W. H. Hatfield: area 3497; population 8843; salary £20 per annum.

*Downham Union.*—Mr. W. L. King has resigned the Wigganham District: area 18,691; population 3644; salary £46 per annum.

*Tiverton Union.*—Mr. Samuel Burrows has resigned the Cruwys Morchard District: area 7661; population 766; salary £18 per annum.

*Township of Manchester.*—Mr. Clement B. Voisey has resigned the Resident Assistant Medical Officership of the Workhouse: salary £140.

#### APPOINTMENTS.

*Lichfield Union.*—James Clark, M.D. Aber., F.R.C.S. Edin., to the St. Chad District.

*Romford Union.*—Alfred Wright, M.R.C.S. Eng., L.S.A., to the First District.

**NEW MAGISTRATE.**—Edward Lister, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. (retired), Swarthdale, Ulverston, has been placed on the Commission of the Peace for the county of Lancaster.

**CURIOUS ACTION FOR LIBEL.**—A novel and important suit for libel has recently been tried in the New Jersey courts. The indictment was brought against the editor of the *Red Bank Register* for libelling the people of Red Bank. The charge was that in August last the defendant sent communications to the New York papers concerning the prevalence of typhoid and malarial fevers at Red Bank, and had also published similar articles in his own paper. These articles, it was claimed, caused a serious depreciation in the value of real estate. After a protracted trial the Court instructed the jury to acquit, on the ground that the State failed to prove the falsity of the articles, and the defendant was discharged.—*Boston Med. Jour.*, June 14.

### APPOINTMENTS FOR THE WEEK.

#### July 14. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### 16. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

#### 17. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Dr. Garson, "On the Comparative Anatomy of the Integumentary, Respiratory, and Circulatory Systems of the Vertebrata."

#### 18. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

#### 19. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

#### 20. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

### VITAL STATISTICS OF LONDON.

Week ending Saturday, July 7, 1883.

#### BIRTHS.

Births of Boys, 1284; Girls, 1194; Total, 2478.

Corrected weekly average in the 10 years 1873-82, 2550.0.

#### DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	774	747	1521
Weekly average of the ten years 1873-82, { corrected to increased population ... }	767.6	700.4	1468.0
Deaths of people aged 80 and upwards ...	...	...	57

#### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	...	6	4	4	8	...	1	...	37
North ... ..	905947	...	9	5	6	9	...	5	...	19
Central ... ..	282238	...	8	...	1	2	...	...	...	12
East ... ..	692738	...	24	15	...	4	...	2	...	49
South ... ..	1265927	1	18	11	1	7	...	3	...	50
Total ... ..	3816483	1	65	35	12	30	...	11	...	167

#### METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.745 in.
Mean temperature ... ..	...	...	...	...	...	64.3°
Highest point of thermometer ... ..	...	...	...	...	...	83.3°
Lowest point of thermometer ... ..	...	...	...	...	...	49.6°
Mean dew-point temperature ... ..	...	...	...	...	...	55.2°
General direction of wind ... ..	...	...	...	...	...	S.S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.12 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 7, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending July 7.	Deaths Registered during the week ending July 7.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ... ..	3955814	2478	1521	20.1	83.3	49.6	64.3	17.95	0.12	0.30
Brighton ... ..	111262	60	23	10.8	75.3	48.7	61.7	16.50	0.37	0.94
Portsmouth ... ..	131478	95	47	18.7	...	...	...	...	...	...
Norwich ... ..	89612	37	29	16.9	...	...	...	...	...	...
Plymouth ... ..	74977	39	25	17.4	68.1	55.0	59.7	15.39	0.60	1.52
Bristol ... ..	212779	103	57	14.0	76.6	49.0	59.3	15.17	0.54	1.37
Wolverhampton ...	77557	57	24	16.2	76.7	48.2	60.0	15.66	0.39	0.99
Birmingham ... ..	414946	265	155	19.5	...	...	...	...	...	...
Leicester ... ..	129483	99	38	15.3	77.8	51.5	62.7	17.06	1.20	3.05
Nottingham ... ..	199349	138	66	17.3	84.2	49.4	63.1	17.28	1.00	2.54
Derby ... ..	85574	78	22	13.4	...	...	...	...	...	...
Birkenhead ... ..	88700	66	30	17.6	...	...	...	...	...	...
Liverpool ... ..	566753	377	252	23.2	...	...	...	...	...	...
Bolton ... ..	107862	66	32	15.5	...	...	...	...	...	...
Manchester ... ..	339252	203	124	19.1	...	...	...	...	...	...
Salford ... ..	190465	141	60	16.4	...	...	...	...	...	...
Oldham ... ..	119071	80	47	20.6	...	...	...	...	...	...
Blackburn ... ..	108460	72	37	17.8	...	...	...	...	...	...
Preston ... ..	98564	85	40	21.2	...	...	...	...	...	...
Huddersfield ... ..	84701	53	32	19.7	...	...	...	...	...	...
Halifax ... ..	75591	47	20	13.8	...	...	...	...	...	...
Bradford ... ..	204807	107	68	17.3	76.2	53.3	62.0	16.67	0.93	2.36
Leeds ... ..	321611	229	137	22.2	76.0	52.0	61.3	16.28	1.31	3.33
Sheffield ... ..	295497	208	110	19.4	...	...	...	...	...	...
Hull ... ..	176296	112	58	17.2	75.0	50.0	61.8	16.56	1.25	3.17
Sunderland ... ..	121117	87	38	16.4	...	...	...	...	...	...
Newcastle ... ..	149464	107	65	22.7	...	...	...	...	...	...
Cardiff ... ..	90033	57	28	16.2	...	...	...	...	...	...
For 28 towns ... ..	5620975	5546	3185	19.3	84.2	48.2	61.6	16.45	0.77	1.96
Edinburgh ... ..	235946	138	73	16.1	75.0	48.6	59.3	15.17	1.10	2.79
Glasgow ... ..	515589	359	279	28.1	71.0	50.0	60.5	15.84	0.59	1.50
Dublin ... ..	34985	...	...	...	...	...	...	...	...	...

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.75 in. The highest reading was 29.94 in. on Sunday morning, and the lowest 29.63 in. on Friday afternoon.



## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

*A Provincial Fellow.*—The annual festival of the Fellows of the College of Surgeons took place, as usual, at the Albion Tavern; Mr. Holden in the chair, supported by seventy-three guests. Dr. Crawford replied for the Army, Sir J. Reed for the Navy, Sir Wm. Mac Cormac and Mr. Alfred Cooper for the Reserved Forces. "The Medical Schools," proposed by Mr. B. Carter, was responded to by Mr. O. Pemberton (who made some pertinent and well-received observations on voting by proxy), and by Mr. Durham for the metropolitan schools. Sir James Paget proposed the Chairman, eulogising Mr. Holden's conduct and career, from his entrance at, to his retirement from St. Bartholomew's.

*An Advocate for Clean Streets.*—The sweeping of the Paris streets, according to the last official return, costs 5,243,000 francs. The number of persons employed in the work is 3016, including 820 sweepers, 2010 auxiliary sweepers, and 186 foremen.

*Infant Mortality and the "Baby's Bottle."*—Dr. R. Dacre Fox, Manchester, writing on the subject of infant mortality, speaks of his experience as an old resident medical officer at the workhouse, and as surgeon to a children's hospital, which has taught him to regard as a very fruitful source of milk-poisoning the decomposition from the vessel which is used to feed the child. He feels sure all of his *confrères* who have to treat the children of the poor will agree with him that 99 per cent. of the bottles out of which children are fed are offensive from the odour of the decomposed milk, which adheres about the cork, tube, or teat, through which the children suck; and in the bottle itself rings of adherent putrefying milk mark, as tide lines, how much the child has taken at a meal. He adds, "The use and abuse of the 'baby's bottle' would be a fit subject for inquiry by our local Sanitary Association; and assisted by its lady members, might it not devote some of its energy to a teaching crusade among the women in the poorer districts of the town?"

*Donations to Charitable Institutions.*—The Corporation of London has just made the following grants:—City Orthopædic Hospital, £52 10s.; St. Mary's Hospital, £105; North-West London Hospital, £52 10s.; Samaritan Free Hospital, £105.

*Dr. Harris.*—At the recent election into the Council of the Royal College of Surgeons, it is stated that 372 Fellows recorded their votes—the largest number known: 135 were from the provinces; but twelve were invalid by leaving on the voting-papers the names of more candidates than there were vacancies. It is curious how little attention is paid to the directions for voting, as (in red ink, in order to make it more conspicuous) the Fellows are told to strike out the names of those candidates for whom they do not wish to vote. No less than fifty-one plumpers were distributed amongst eight of the nine candidates.

*A Convalescent Home for Working Men.*—An establishment managed by working men for working men has just been opened at St. Margaret's Bay, near Dover. It is the outcome of the Hospital Saturday movement, but will have no connexion whatever with its funds. It is designed to be self-supporting, and for convalescent working men on leaving hospital, where, for a small weekly sum, or, if need be, without charge, they should be able to take rest necessary for complete restoration. For the purchase and furnishing of the "retreat" £2500 was required, which has been lent by Messrs. Hoare. Subsequently, subscriptions, including fifty guineas from the Corporation of London, and £200 from Mr. S. Morley, M.P., have been received; but £1200 remains to be paid off. The home will receive thirty men, whose payments, though small, will, it is expected, render it almost self-supporting.

*A Fee of Fourpence per Case of Successful Vaccination!*—A letter was read at the last meeting of the Mile End Old Town Board of Guardians from the Local Government Board, declining to assent to the proposal of the guardians to allow the present arrangement with the vaccination officer to stand over for twelve months. The Board did not think that fourpence per case of successful vaccination was sufficient remuneration. A motion that the letter be considered that day six months was adopted.

*A Metropolitan Teacher.*—This journal was the first to publish the names of successful candidates for the diploma of Membership of the Royal College of Surgeons—a plan now become general for all kindred institutions. It was an innovation much resented for a short time, but reflection showed the authorities the wisdom of non-intervention.

*The Metropolitan Main Drainage System.*—A French paper, remarking upon the recent visit of experts to this country for the purpose of examining our main drainage system, says—"The bad sanitary condition of Paris, the recent and serious epidemic of typhoid fever, and the bad smell at the present day still the characteristic of the capital of France, have provoked the nomination of a special technical commission to report upon the ameliorations that might be possible to apply to this state of things. . . . It is absolutely evident to all who have studied the question, that energetic measures ought to be adopted to preserve the health of the inhabitants of, and visitors to, Paris."

*J. Chadwick S.*—The Manchester Royal Eye Hospital has been in existence for nearly seventy years, but it would appear to be only within the last ten years that the building erected in St. John-street sixteen years ago has become quite insufficient for the increasing demands upon it. A new hospital is therefore proposed, capable of holding 100 beds, with proper accommodation for out-patients. The estimated cost, inclusive of the site, is £20,000.

*A Necessary Sanitary Provision at last!*—For several years the Hampstead Vestry have been considering the adoption of the Baths and Washhouses Act for the parish. At length they have resolved to adopt it. It is thought that two sets of baths will be necessary—one for Hampstead proper, and one for the Kilburn portion of the parish,—and the estimated cost, including site, will be for each about £15,000. Each building will include first- and second-class baths, swimming-baths, and washhouses.

*Heloman, Egypt.*—During the last visitation of cholera which raged severely at Cairo, there were hardly any cases at this little town. It is situated on a plateau some two hundred feet above the valley of the Nile, nearly opposite the Pyramids, and about ten miles from Cairo. It is connected with the capital by a railroad, and lies on the borders of the desert. There is, in consequence, no moisture there, while the extreme heat of the day is mitigated by cool breezes, which always spring up in the desert at night. It is a bathing-place famous for its sulphur springs.

*Over-educating in School Boards.*—This subject has obtained much public discussion, but it may be incidentally asked whether the strain of the children's lessons and their home work may not be attended with an amount of harass sufficient to produce bad health and mental debility. Are not the lessons which are learnt out of school, in crowded and noisy homes, probable factors of more bodily and mental disturbance than an increase of work in this respect in school, with the quiet and order of its superintendence and discipline?

*Ralph.*—The area now occupied by the buildings and land of the Caterham Asylum for Imbeciles extends over 150 acres. The land is cultivated by the inmates, who now number 2000, of whom 500 are epileptic patients.

*Mortality, Lagos.*—If the report of the Registrar at Lagos for 1882 may be accepted as correct, the death-rate last year was only 18.23 per 1000. Considering the unhealthiness of the West Coast of Africa, to which Lagos has hitherto been no exception, these figures are somewhat astounding, even to the inhabitants. How was it that death should appear to be so busy amongst them when, from a statistical point of view, they had little to complain of? Explanation is simple enough: the discrepancy is due to absence of all compulsory regulation for the registration of deaths, and to the custom of burying the dead under the floors of the houses. The natives are very tenacious of this barbarous practice. To them it is an outrage to bury their deceased relatives under ground which may be trodden by strangers, and consequently the interior of every hut is converted into a family cemetery. The *Lagos Observer* aptly says—"This noxious and offensive custom is a fertile source of disease and mortality, and steps ought to be taken to compel the people to pay some regard to the laws of health."

*Juvenile Temperance "Badges."*—Mr. F. T. Palgrave, writing to the Wiveliscombe School Board, Somerset, on behalf of the Education Department, states that refusing admission to school to children wearing the "blue ribbon" is inadmissible under Article 89 of the Code, and, if persisted in, will entail the loss of grants, as the schools of the Board thus cease to be public elementary schools.

*A Grievance.*—Dr. Porter, Medical Officer of the Bow District, draws the attention of the Poplar Board of Guardians to the subject of fees for certifying for lunatics. He points out that by his agreement with the Guardians he was entitled to a guinea fee for lunacy certificates, but by a change in the arrangements the lunatics go to the workhouse, and the fees to the workhouse medical officer, and Dr. Porter is "left." The Chairman of the Board states that although the Guardians might see that there was a little loss to the district medical officers, they had no power to interfere, as the arrangements are practically controlled by the magistrates.

*Contagious Diseases Acts.*—A Parliamentary return has been issued, containing a copy of all orders given as to the operation of these Acts since the vote of the House of Commons in reference to compulsory examination.

*Women as Poor-law Guardians.*—From the annual report of the Society for Promoting the Return of Women as Poor-law Guardians, it appears two ladies had been elected for the first time in the Poor-law history of Scotland, whilst in Bradford, Eastbourne, Birmingham, and Bristol ladies had also obtained a majority of votes. In London, thirteen ladies had been elected this year, against eleven last year. It is stated that the Local Government Board are desirous of securing the admission of women as guardians, apparently recognising the useful work which might be carried out by them. We understand it is in contemplation to bring a Bill in the House of Commons for this purpose.

*The Tower of London Improvements.*—It would be a great boon to the inhabitants of the district if the Tower Embankment were thrown open to the public. Thirty years ago it was accessible by the people, and was closed on the alleged necessity of extra room for Government stores. That necessity no longer exists.



*Pickles Artificially Coloured Green.*—The Court of Appeal in Brussels has decided that the objection to pickles artificially coloured green by the contact of the vinegar with copper utensils is a mere prejudice. Some manufacturers of pickled gherkins in that city having been condemned in December last to a fine for having, in the technical language of the judgment, "sold or exposed for sale certain substitutes affected by copper verdigris of a nature to cause the death of the consumer, or at least to produce effects injurious to health," one of the condemned appealed, and the case necessitated the examination of scientific witnesses. Professors in chemistry gave evidence on both sides, but it was of such a conflicting character that finally judgment, free of costs, was given for the appellant.

*A Boon.*—The need of the adaptation of the burial-ground of St. George's, Bloomsbury, which is situate in the parish of St. Pancras, and in close proximity to a dense population of poor people, is exhibited by the fact that many of the children who frequent the Temple Gardens in the evening come from this neighbourhood. A faculty to lay out the ground in question as a public garden has just been granted. The Kyrle Society has laudably agreed to find £237, which is required for the necessary alterations, and the parish of St. Pancras has undertaken to keep the garden in proper order.

*The County Analyst, Cambridge.*—On condition that the county analyst would consent to a reduction of the fees payable to him for analysing water, which, it was contended, was much more important than other articles of consumption, the county magistrates have agreed to advance the salary by £10 for one year.

*G. G., Southwark.*—The existing regulations of the London Corporation Sanitary Committee for resisting the importation of cholera into the metropolis are, that if a vessel be suspected of being affected it be handed over to the medical officers, and if they find any person on board who is affected he is to be immediately removed to the hospital ship. The medical officers have full power to inspect any ship.

*Diseased Meat outside the City of London Meat Market.*—With respect to a complaint by Dr. Sedgwick Saunders, the Medical Officer of Health, of the sale of unsound and diseased meat consigned to salesmen in Charterhouse-street, outside the Meat Market, and beyond the jurisdiction of the market authorities (previously referred to in these columns), the Sanitary Committee of the City Commission of Sewers report that there appeared sufficient evidence to warrant legal proceedings, and they recommended that the matter be referred to the Solicitor to take one case in the first instance, and proceed by special indictment. This was agreed to.

*Norse.*—The Fulham Board of Guardians, in reference to the mortuary question, are about to make an application for inquests to be held in the board-room as hitherto.

*Dr. Mitchell.*—Yes. Sir Henry Alfred Pitman graduated M.D. Cantab. in 1841; he is Consulting Physician to St. George's Hospital, where he formerly lectured on the Principles and Practice of Medicine. He has for more than twenty years been the Registrar of the Royal College of Physicians, and he is the representative of that Corporation in the General Medical Council.

*The "Nazareth House" Charges.*—At the Fulham District Board of Works, last week, the General and Sanitary Committee reported to the Board on this matter a recommendation that no further action be taken on it. A member, referring to the Government report, thought the subject should not be shelved, out of justice to their medical officer. Dr. Collier, the Medical Officer of Health, in reply to a question, said he was not called at the inquiry. If the inspector had been called who removed the case of typhus fever the evidence would have been most valuable. It was ultimately resolved—"From an official inquiry into the Nazareth House charges, made by the medical officer, the Board feel altogether dissatisfied with the private investigation made by Mr. Spear, and that without a further official inquiry on oath be granted the Board are still disposed to abide by the opinion expressed by their medical officer."

*Alleged Immunity from Consumption.*—At a German ultramarine manufactory the director has observed that for forty-four years none of his workmen have ever suffered from consumption. He attributes their immunity to the fact that the process of manufacture involves the constant production of sulphurous acid by the burning of sulphur.

*Young Women's Help Society.*—This Society has now thirty-one branches; twenty-seven of these are working among shop and factory girls, and four are at work in agricultural districts, and are for the benefit of domestic servants and of young women dwelling in their own homes. Thirteen club-rooms, five lodging-houses, and four refreshment-bars have been provided specially for the use of factory girls. The Society has extended its benefits to women both married and single, and a new feature in its work has been the establishment of central homes for lady workers in crowded districts. During the past year about 3000 girls and women had been benefited, and the Branch and East London Central Home balance-sheet showed a local expenditure of upwards of £1633.

*Citizen.*—A copy of the correspondence between the Secretary of State and the Commissioners of Sewers relative to schemes under the Artisans' and Labourers' Dwellings Acts, 1875-82, has been issued as a Parliamentary paper.

*Vaccination by Authorised Medical Men only.*—The Guardians of St. George's, Hanover-square, have resolved that students should not be permitted to vaccinate any children at the vaccination station, 2, Regent-street, Horseferry-road, and that the number of students attending on any one day should not exceed three. It was of the highest consequence that vaccination should be performed by a medical man properly authorised. The limit of the students to three was from want of room.

*Keeping Flowers in a Bedroom.*—Dr. Reklam, of Berlin, has expressed the opinion that the indispositions, in the shape of uneasy sleep, headache, etc., which are sometimes found to result from keeping flowers all night in a bedroom, do not arise from any special properties of the flowers. The effect is analogous to that produced on the eyes and ears by excessive light and by loud sounds, being, in fact, caused by a continual strain on the olfactory nerves! More or less, similar consequences arise, it is remarked, from a bright light being kept burning in a bedroom, or from the noise of the wind or of vehicles passing by, the brain being disturbed from its wonted rest by these external influences. The moderate use of perfumes, it is argued, cannot be regarded as injurious.

*Decrease of Sophistication.*—Mr. W. C. Young, the public analyst, Poplar, reports that during the past quarter he had examined seventy-two samples of food, and it had been found necessary to caution the vendors of a few of the articles, but no prosecution had been instituted. Dr. Swete, the county analyst, Worcestershire, in his quarterly report to the Midsummer Quarter Sessions, states that he had received twenty-four samples of food for analysis during the quarter, and that they were all genuine.

*"Genuine Polish Cheese."*—Our metropolitan sanitary authorities are ever and anon discovering some noisome odd trade. The inhabitants of Backchurch-lane complained of a nuisance, and when the inspectors paid a visit they found a large storage of sour milk used for the manufacture of "Genuine Polish Cheese." The premises were in an abominable state of filth, and the cheese in an odious condition. The turning out of cans of large quantities of the sour milk was most offensive, and the proprietor has been warned to conduct his business so as to be neither offensive to his neighbours nor dangerous to the health of the locality.

*The Sale of Condemned Meat, London.*—Dr. S. Gibbon, Medical Officer of Health of the Holborn District Board of Works, reports, from inquiries he has made of the Clerk of the City Commission of Sewers as to the practice of that Commission in the disposal of condemned meat, that the Commission provides vans for its removal by the contractors, and that at the present time the latter pay at the rate of twopence per stone for it. That during the past four years the amount received from such sales was £2897 15s. 11d., or an average of £724 8s. 11d. for each year. It is to be hoped the utilisation of this meat is subject to such regulations as to leave no doubt of the harmless and innocuous purposes to which it is applied.

*A Novel Bequest: A Disbeliever in Physic.*—A French lady recently died at the advanced age of ninety. Her will contained this provision:—"I leave to my physician, whose enlightened care and wise prescriptions have made me live so long, all that is contained in the old oak chest of my boudoir. The key of the chest will be found under the mattress of my bed." The family were somewhat anxious. The fortunate physician arrived. The chest was opened, and found to contain solely all the drugs and potions still intact which the doctor had given his patient for years back.

COMMUNICATIONS have been received from—

MR. RUSHTON PARKER, Liverpool; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; DR. SUTHERLAND, London; DR. HILTON FAGGE, London; DR. WILLOUGHBY, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; MR. J. CHATTO, London; THE SECRETARY OF THE LONDON SANITARY PROTECTION ASSOCIATION; DR. NORMAN KERR, London; MR. EDWARD LISTER, Ulverstone; MR. SHIRLEY F. MURPHY, London; THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY, London; MR. W. H. STICKLAND, London; MR. T. M. STONE, London.

BOOKS, ETC., RECEIVED—

Cookery for the Household, by H. Simpson, M.D.—*Traité Clinique de l'Inversion Uterine*, par P. Denucé—Body and Will, by Henry Maudsley, M.D.—On a Prolonged Case of Enteric Fever, by Robert Park, M.D.—Narcotics, Medical Treatment, Nursing—Sunspottery, by J. A. Westwood Oliver—Medical Guide to the Mineral Waters of France and its Wintering Stations, by A. Vintras, M.D.—Anæsthetics, by R. T. Freeman, L.R.C.P., etc.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—Denver Medical Times—Health—Weekblad van het Nederlandsch—Students' Journal—Analyst—Ciencias Medicas—Western Medical Reporter—New York Medical Journal—Popular Science News—British Quarterly Review, July—Builder—Sanitary Journal, Toronto—Club and Institute Journal—Quarterly Therapeutic Review—Westminster Review, July.



## THE SANITARY LESSONS OF INDIAN EPIDEMICS.(a)

By Surgeon-General J. M. CUNINGHAM, M.D.,  
Sanitary Commissioner with the Government of India.

It was in the early part of 1874, if I remember aright, that a paper on Cholera in India was read by your late President (Dr. John Murray), and that in the course of the discussion which followed I had the opportunity of stating some of the views which I entertained in regard to cholera and other Indian diseases. I ventured to say that I considered the opinions ordinarily held about cholera were opposed to Indian experience; that there was no evidence that cholera is a special product, raised only in the delta of the Ganges, and thence disseminated over the world; and, moreover, that there was no evidence to prove that it is caused by any special contagium developed in the bodies of the sick, and communicated either directly or indirectly by human intercourse. After a lapse of ten years it seems not out of place that I should recur to this subject, and endeavour very shortly to set forth how far the views I then expressed have been affected by further experience. How far have they been modified, and how far have they been confirmed? How far, again, are the general principles which seem to hold good in regard to cholera applicable to other diseases, and especially to some of the other epidemic diseases of India? I esteem myself fortunate in being permitted to bring these matters under your special notice by the reading of this paper, which I have designated "The Sanitary Lessons of Indian Epidemics," and which I shall endeavour to make as brief and practical as possible.

It can hardly be questioned that India presents a grand field for the study of sanitary questions. Its vast extent; the differences in its soil and geological formation; the well-marked and varied features in its physical geography; the variety of climate which it presents, as regards temperature, rainfall, humidity, barometric pressure, and other points; the differences of race, as respects not only nationality, but also food, clothing, and other habits; the differences of local conditions, and among them the differences in the means of communication over so vast an area, which in some parts are as good as they are in England, and in other parts are no better than they were one hundred years ago;—all these render India a country the facts regarding which are well worth attentive observation from a sanitary point of view.

India has taught us many lessons in other departments both of peace and of war, and I believe that it is well fitted to teach us most valuable lessons in sanitary matters also. All this will be readily granted. This statement will in all probability be readily accepted in the abstract; but it may be thought that, grand as is the field of observation, the means of observing are very small. It may be said that the facts are very difficult to ascertain, that error is very apt to creep into all regarding them, and that the whole record is one on which no great reliance can be placed. For this reason it would appear that the data which have been collected year by year in India have hitherto not received the attention which they deserve. It may be granted that the means of observation in India are not so good as they are in some other countries; but, at the same time, they are on no account to be despised. The minute particulars which are obtained regarding our European army, numbering 60,000 men, our native army, numbering 120,000 men, and our prison population, which is never less than 100,000, are all of extreme value, and may fairly take their place for exactness and for minute detail with any sanitary statistics which can be procured elsewhere; and, although the statistics of the births and deaths among the general population are still in a very imperfect condition, they yet afford very valuable information—information which is yearly becoming more exact and more valuable in its bearing on the general history of disease in India. But even in its imperfect condition it is remarkable how completely the great facts embodied in these statistics concerning the general popula-

tion accord with the details furnished by the bodies of troops and prisoners, the exactness of which cannot be disputed.

It may be thought, and I have both read and heard this opinion expressed again and again, that the truth regarding disease is to be learnt rather by an exhaustive inquiry into particular outbreaks than by a consideration of the facts extending over a large area. But it seems to me, as the result of large experience, that in epidemiology undue importance has been attached to local inquiries. Inquiry into particular outbreaks is, no doubt, very excellent in its way, and more especially into the local insanitary conditions which favour epidemics, the examination of which can never be too searching, but from an epidemiological point of view such inquiry cannot be accepted by itself, independently of the general history of disease. No man of sense or science set down in a village to form an opinion on the causes of the peculiarities in the season—of the excessive rainfall it may be, or of the unusual dryness, or of the potato blight or any other abnormal conditions of the crops—would ignore everything except what came under his observation in that particular village. And yet this is very much what men do who make a purely local inquiry into epidemic disease, and take no thought of what has been going on, or, it may be, is going on at that very time, in other parts of the country.

The facts regarding the general history of disease must be considered as well as the results of local inquiry, and in this way these great facts will often prevent wrong conclusions being drawn from the little facts. It is, in truth, essential, if we are to arrive at any sound conclusions, that we should look at all the facts so far as they can possibly be collected. But there is nothing more difficult than to get at the facts. In the course of a long experience there is nothing which has struck me more forcibly than this. The reporters are so apt to confuse between fact and mere opinion: in the minds of some it seems impossible to separate the two. Again, there is nothing more common than forming an opinion without any (or with insufficient) facts. Then, again, there are other fallacies which are extremely common. There is the common fallacy of recording the facts all on the one side, and omitting all the facts on the other side. I have known a man write a report on a local outbreak of disease, which seemed to be very plausible and even convincing, who left out of consideration the whole history of disease among the general population in the neighbourhood, the slightest acquaintance with which would have shown him that his ideas were altogether wrong and would not stand a moment's investigation. I have known another man write a goodly volume to prove his own particular theory, and leave out of it all mention of one little fact which might have been stated in a single line; and yet that little fact was sufficient to show that his whole book was little better than a dream. I do not mention these instances to hint in the smallest possible way that such men are dishonest, but when men become possessed of a theory, they seem incapable of looking at anything except the facts which fit in with that particular theory. Another common fallacy is to neglect, or attach no importance to, solitary cases of epidemic disease. The diseases which sweep over India, and more particularly "cholera," are diseases which are common enough without any epidemic being present. Solitary instances of cholera occur ever and again far beyond the endemic area, but they are too often passed by as if they were of no consequence. One is attributed to some error of diet, another to exposure, a third to some other cause, and no doubt these causes are not without their influence; but when solitary cases of this kind occur here and there over a large area—although they may appear to be of little consequence to the individual observers concerned with each case,—they have to the epidemiologist who views them all a significance which is not to be ignored. Epidemiologists, who propose to deal with epidemics, and to show the causes to which they are due, must at the same time be prepared to deal with these solitary cases; and I venture to think that even in temperate climates, where such cases, even of cholera, are not unknown, much too little has been made of them. To call such cases "cholera nostras," as distinguished from "cholera Indica," is to make the nomenclature of disease depend on a preconceived theory. They are indistinguishable at the bedside, and the only difference is that while the one occurs in solitary instances, the other occurs in out-

(a) Read before the Epidemiological Society on Wednesday, July 4.



breaks of epidemic violence; but there is no reason to suppose that the cause or causes which produce one case of so-called "cholera nostras" may not produce a hundred or a thousand. No one attempts to make any such theoretical distinction between cases of small-pox—to call isolated cases small-pox nostras, and the cases of an epidemic by some other name. But, in dealing with epidemiological questions, there is yet another evil, which is perhaps even greater than any of those I have already mentioned. It is the evil which arises from taking mere coincidences as evidences of cause and effect. A person suffering from disease, or coming from a place in which disease is prevalent, is attacked, and soon after one or other of those of his own house, or of those living in the neighbourhood, is attacked also. The conclusion is immediately arrived at, that the first person has been the cause of the others being attacked; but this is exactly one of those cases to which I have already referred, in which all the instances of one kind are cited, and all the instances of the opposite kind are ignored. It is quite true that there are numerous instances on record, in which persons travelling from an affected locality have been seized with disease on arrival in their own homes, and their neighbours have suffered soon afterwards; but there are innumerable instances in which such travellers have been attacked, and yet others have not suffered. These are all left out of account. It is argued that in the one case the evidence is positive, and that in the other it is negative; but this is altogether a fallacious view of the question. There is no positive evidence either on the one side or on the other. The only facts we have are facts relating to time: the traveller suffers first, his neighbours suffer afterwards; therefore the neighbours have been affected by the traveller. This subject is one of very great importance, because a clear understanding of it lies at the bottom of all medical evidence. If it had been proved that a person suffering from cholera, or other epidemic disease, really propagates a specific poison, then the cases in which the neighbours were affected might be regarded as positive evidence; but, in the absence of such proof, no conclusion can be arrived at unless the facts on both sides are carefully collated. If the facts on one side only are considered to be evidence, it would be possible to prove almost anything. I remember when I was a boy it was a common remark that the frost came down with the mail-coach; and, no doubt, there were numerous instances in which the arrival of the mail-coach and the setting in of the frost were contemporaneous. Had I been anxious to prove that the mail-coach really did bring the frost, all that would have been necessary, according to the ordinary mode of medical evidence, would have been to cite the number of instances in which the two things were contemporaneous, and leave out all the other instances in which they were not contemporaneous. It may be said that nobody would do anything so foolish as this, but this is exactly what is done in regard to many epidemic diseases, and to none more than in regard to cholera, and the supposed spread of cholera by means of pilgrims.

All the instances in which pilgrims are first attacked and the general population suffer afterwards are cited, but nothing is said of the many instances in which either the general population is attacked first, or in which the pilgrims are attacked, and no cases follow in the localities through which they pass. Yet without these cases the evidence is altogether incomplete and one-sided, and therefore no sound conclusion can be based on it. The reasoning now is all carried on in a vicious circle. The supposed spread of cholera by human beings is asserted on the strength of facts selected all on the one side, and which are dignified by the name of positive evidence on the ground that these human beings have conveyed the "germ" or "contagium," the results of which are manifest in the persons of those among whom the travellers have come. But if evidence be asked of the existence of this supposed germ or contagium, the cases of these same pilgrims and other travellers are cited! And so, as I have already said, the argument proceeds in the same vicious circle. If the existence of the germ or contagium had been demonstrated, the case would be very different. Until it has been demonstrated the evidence on the one side is just as important and just as positive in its character as the evidence on the other side.

But, having got all the facts, so far as they can be collected, it is essential that the deductions drawn from

them should be strictly logical. If the question were asked of a hundred people, What is the cause of epidemic disease? ninety-nine of them would probably reply that epidemics were due to contagion, that a sick person coming from some place or other brought with him the germs of the disease, and that those germs found a fitting place for development in the persons of other people. But such an explanation, however plausible it may appear at first sight, is really no explanation at all; for, if we follow back and trace the individual who is supposed to have brought the disease, and ask where he got it, and then trace the third person back and ask where he got it, and so on, we have still the same question to answer—How did this disease arise? The doctrine of importation merely puts the question off. If a community whom we may call "Z" is suffering from an epidemic, there is little satisfaction in being told that this epidemic was imported from "Y," and that the epidemic in "Y" was imported from "X," for if we trace back and back we must eventually come to "A," and the question then arises, exactly as it arose with regard to "Z"—What was the cause of this disease?

In dealing with epidemics, and in fact with the causation of all diseases, we must assume nothing. In the present day the germ theory is in great favour. Germs are supposed to account not only for cholera, small-pox, and enteric fever, but also for tubercle and ordinary malarial fever. There seems to be no limit to the germ theory of disease; but, as a matter of fact, do these germs really exist? Have they been found in diseases such as small-pox or syphilis, which are usually cited as the most striking examples of contagious disease? Is there a single so-called germ which can be shown under the microscope and recognised as the germ of any particular disease? Is there a single organism derived from a person suffering from a particular disease which can be said to be the cause, and not a consequence, of that disease? Is there a single organism found in disease which alone is capable of producing that disease? Every now and again the medical world is startled with the announcement that one of these specific germs has been discovered, and the announcement is far too readily credited, for, as time goes on, grave doubts are thrown on the accuracy of the supposed discovery. A year or two ago we were told that malarial fever was no longer a difficult problem to solve—a bacillus had been found to account for everything,—but now we have two organisms in the field, which both claim the supposed honour: one the bacillus of Tommasi and Klebs, and the other of Laverac, which I believe is not a bacillus at all. Again, we had the bacillus of tubercle announced by Professor Koch, but, according to the latest intelligence, Spina, and other of Stricker's pupils, have found in typhoid fever stools, in the sputum of pneumonia, asthma, and bronchitis, and in the lochial secretions, a bacillus which in form, size, arrangement, and reaction is indistinguishable from the tubercular bacillus of Koch. I have no intention of entering on the germ question in general, but the questions I have suggested are very pertinent in the history of Indian diseases, and more especially in the history of cholera and enteric fever, in regard to which I would venture to offer a few special remarks. What do we know, or what do we not know, about these diseases? Cholera is said to be due to a germ or poison spread by the skin—a poison which is bred in the delta of the Ganges, and thence carried over the world. These were propositions which were formulated by the Sanitary Conference of Constantinople and Vienna, and are generally accepted as embodying the truth, but I venture to think that they both rest on a most imperfect foundation. They are based chiefly on a series of one-sided anecdotes, which are not only one-sided, but which are, moreover, opposed to all that is known of the great facts regarding cholera. Human intercourse is free and uninterrupted all over India, and yet for years together great parts of this large continent remain unattacked by cholera. Even in those instances where great fairs have been succeeded by a prevalence of cholera, this prevalence has never been general in all directions. The pilgrims going in particular directions no doubt have suffered, but the pilgrims going in other directions have, after the first day or two, when they seemed to be suffering from the influence of the place from which they had come, entirely escaped. The real explanation of the pilgrims' sufferings is to be found in the fact that they have traversed a "cholera area" at a time when,



ill-fed and filthy, exposed to hardship and fatigue, they have been in a condition most favourable to be attacked.

The history of attendants on cholera cases is in itself a sufficient answer to all that has been said in regard to pilgrims spreading cholera, for the evidence is complete that the attendants on cholera cases suffer no more than other people. I have now the details of nearly 8000 attendants on cholera cases, and of these only 150 were attacked. Such a result cannot be accepted as evidence of contagion, especially when it is remembered that they were subject to the same conditions as the ordinary inhabitants of the place. On the contrary, it shows an absence of contagion under circumstances most favourable to contagion if any contagion had really existed. If attendance on the sick for many days and nights is not a service of danger—and the whole experience of India shows that it is not—what is to be said of the innumerable instances of supposed contagion where the persons attacked were only residents of the same place, and never came into communication with the sick at all?

There is another great fact regarding cholera which is too often ignored—that, even over an epidemic area, the proportion of villages attacked is comparatively small. If cholera be due to human intercourse, how is it that even in times of severe epidemics the proportion of villages that escape is much larger than the proportion that suffers? The general direction of a cholera epidemic, moreover, is opposed to the idea that it is governed by human intercourse, or any other chance; and if the believers in the water-theory, as it is called, will examine the facts regarding the great rivers of India, they will find that the advance of cholera is in directly the opposite direction to that in which, according to their theory, it ought to be. They will find, moreover, that the children, who drink more water than any other portion of the community, are especially exempt. The real truth, so far as we have yet ascertained it, in regard to cholera is its remarkable localisation; and the real remedy is to be found, not in any endeavour to prevent human intercourse—which is impossible,—or to destroy the germ, the very existence of which remains to be proved, but to carry out sanitary improvements, and if, in spite of them, cholera should still prevail, to move away from the affected locality. The advantage of movement has been exemplified over and over again, and never more strikingly than in the outbreak at Meanmeer in 1881, when the troops, on three occasions, shook off the disease by moving into camp about a hundred miles away, and were attacked again immediately they returned.

Experience in regard to enteric fever teaches very much the same lesson as experience in regard to cholera. When this disease was first returned in India under its new name, medical officers commonly attributed it to importation. Someone had brought the disease; where it originally came from, no one could say. The explanation, such as it was, was very simple, and, at the same time, very unsatisfactory. And more accurate and extended observation has shown that it is not only unsatisfactory, but also altogether inconsistent with facts. We now know that enteric fever is a disease peculiarly common among young European soldiers recently arrived in India. We know that it occurs over a large extent of country in isolated cases; that it does not spread from the sick to the healthy; that the attendants are no more exposed to danger than other people; and that the common source to which it has been attributed so often in England, namely, the milk-supply, cannot hold good in India, for this simple reason—that the children, who consume most milk, are, with rare exceptions, exempt. What is the real nature of this fever it is not for me to say; but, considering that it presents itself under a variety of phases, that in its early stages it is almost always indistinguishable from the intermittent or remittent, it does not appear unreasonable to class it as one form of malarial fever due to climate aided by local conditions or the other causes to which malarial fever is due. There is certainly no evidence that it is due to any specific germ. Undue importance seems to have been attached to a name. There can be no question that the fever which is now returned so commonly in India as enteric fever is simply the same fever which used to be returned in former years as remittent fever; and whatever advance may have been made in pathology by the change of name, the tendency in the treatment has been decidedly hurtful—for there has been a hesitation in the administra-

tion of quinine, or a withholding of it altogether when its use might have been attended with decided benefit.

Mere fashion has, I regret to say, a good deal to do with even the statistics of disease. Although the mortality from fevers as a whole has certainly declined in India compared with what it used to be, the proportion of that mortality ascribed to enteric fever has been gradually increasing, while the proportion ascribed to remittents and other more generally recognised forms of malarial fever have been gradually decreasing. The general results of 1881—the last year for which I have the records with me—merely repeat the experience of former years. The percentage of liability to enteric among men under twenty-five years of age was 60; between twenty-five and twenty-nine years only 20; and between thirty and thirty-four years of age only 10. In respect of Indian residence the figures are even more striking, for during the first and second years of residence the percentage of liability to enteric was 60, while from the third to the sixth year it was only 27, and between the seventh and tenth years it fell to 7. It is difficult, and indeed I believe it is impossible, to reconcile these great facts with any theory which ascribes the disease to a specific germ or specific contagium communicated from the sick to the healthy. It has been argued that the disease described as such in India is not really enteric, because in Europe enteric arises under conditions which do not exist in India. But, if clinical observation and post-mortem appearances are to go for anything, there can be no question that the enteric of India as seen among European soldiers is one and the same as the enteric seen in England, though in India the degrees of severity are very various, and it is often impossible to say whether the fever should be called enteric or remittent, or even intermittent. May not the true explanation of the facts be this—that disease, instead of being caused by one specific germ is really the product of many causes, some of which operate most strongly under certain conditions, and others operate most strongly under other conditions?

When the evidence is carefully sifted, I venture to think that there is very little to support the theory that either cholera or enteric fever is due to a specific poison. It is important to make this point very clear, because until it is made clear the practical action to be taken is apt to be misunderstood.

You will ask, then, what can be the cause or causes of this and other diseases? I can only answer, that in the present state of our knowledge we cannot speak with any exactness. The explanation will, no doubt, be found in climatic and other conditions affecting certain localities, and materially aided by the insanitary condition of those localities. I have heard it argued that it is impossible to deny the existence of an entity as the cause of disease; the mere presence of the disease is in itself sufficient proof that this entity exists. But such reasoning is altogether fallacious. Disease may be due, as many other things are due, to a force or forces. The greatest powers we know of in the world are not entities at all—such, for example, as wind, and steam, and electricity. No one doubts their power, and yet we know that in neither one nor the other are the tremendous results to be ascribed to the existence of any entity, to anything which can be seen by the naked eye or demonstrated under the most powerful microscope. You may think that these are merely theoretical views which have little or no practical application, but I believe that they are really of very great practical importance, and that they in fact lie at the root of all sanitary progress. The doctrines which have been so commonly preached of late years regarding germs and the danger arising from the sick have been attended with most disastrous consequences, and there seems every reason to fear that these disastrous consequences may increase rather than diminish. Much domestic misery is caused by the removal of a sick person from the midst of his family. I have known wives separated from their husbands, and children from their parents, to die in a hospital unattended by those whose duty under any circumstances was to have nursed them in their extremity. I have known the greatest fear and alarm pervade a community on the first mention of disease supposed to be contagious—a fear which was so general and so great that it was a matter of difficulty to obtain attendants for the sick, and when attendants were found they entered on their duties in a state of alarm which was little calculated to aid in their discharge, but rather fitted them to become easy victims to the



prevailing disease. The consequences have been mischievous not only in regard to domestic arrangements, but in regard also to national arrangements. The quarantines which have been set up at Suez of late years, and which are again and again imposed without the smallest necessity, are the natural outcome of the views which have been so loudly proclaimed. True, English authorities, although they have supported the germ theory very warmly, have at the same time expressed their decided opinion that quarantine is useless. But people cannot be blamed if, believing in germs, they should take every possible precaution to keep them out. They may say, "You yourselves have expressed your opinion that cholera, for example, is due to a specific poison which is carried from the delta of the Ganges by human beings all over the civilised world. You object to quarantine, it is true; you say it is useless, but here your views are distorted by your self-interest. You do not wish your trade to be interfered with, and therefore you tell us that quarantine is of no use. At all events, we will try; if we fail to keep out all the germs which are so destructive to mankind, we may yet be successful in keeping out some of these germs, and surely, according to your own showing, every germ kept out must be a decided gain."

The quarantine restrictions are imposed at the will of international board-sitting at Constantinople and Alexandria. They are one of the consequences of the Constantinople and Vienna Conferences, and, so far as their action has hitherto been seen, it seems to me to be one of unmixed evil. They proceed on the principle that there is a great danger arising from Indian ships, and that this danger can be averted by the measures which are taken under their orders. But the danger of which they speak is a purely theoretical danger. There is no evidence whatever that Indian ships have ever brought cholera. The Red Sea route, along which this constant source of danger is supposed to exist, has been singularly free from cholera, and that, too, over a period during many years of which cholera was prevalent in Europe.

During the seventeen years from 1865 to 1881, so far as is known, there is no ground for supposing that Indian ships have imported cholera either into Egypt or into Europe. What is perhaps even more striking is the further fact that although Egypt has been in direct and never-ceasing communication with India throughout this time, it has preserved a remarkable immunity from cholera. The general distribution of the disease in Europe and Asia during a series of years is clearly shown on the maps attached to Mr. Radcliffe's "Papers concerning the European Relations of Asiatic Cholera," published in the "Report of the Medical Officer of the Privy Council and Local Government Board," new series, No. V., and which is all the more valuable for any purpose because Mr. Radcliffe is well known as a warm supporter of the doctrine that cholera is spread by human intercourse. From these maps and the Report itself it appears that there was cholera in Egypt in 1865, but it is admitted that this was not imported by ship from India. In 1866 there was a slight reappearance of the disease, but there has apparently been no cholera in Egypt from that time up to the present year. During the ten years 1865 to 1874, to which the report of Mr. Radcliffe refers, there is not a single year in which Europe was absolutely free from cholera, and in some of them after 1866, as in 1867, 1869, 1870, 1871, 1872, and 1873, there was considerable prevalence. In other words, notwithstanding the supposed danger from Indian ships, Egypt for fifteen years has been altogether free from the disease, and yet during many of these years India has suffered from most serious epidemics of cholera. The experience of Aden is even more striking. It suffered from cholera in 1865, and again to a slight extent in 1867; but although it lies within a few days of Bombay, and although it has been in daily communication with that and other Indian ports, it did not once suffer from cholera during the thirteen years 1868 to 1880. I do not refer to the outbreak at Aden in 1881, because it does not affect the general truth that over a long series of years this place has been singularly free from cholera. It is not necessary to go further back than 1865, and it would be difficult to ascertain the facts for the earlier years with any accuracy; so far as they are known, they confirm the experience of more recent times. It must be borne in mind, moreover, that the whole period above referred to—from 1865 onwards—is a period during which there was practically no quarantine along the Red Sea line. The fear of the importation of cholera

from India into Egypt and Europe by means of ships is based, not on facts, but on the theories of the conferences as to what ought in their opinion to have taken place, but what, so far as the evidence goes, never actually has taken place. It is impossible, in the face of these facts, to maintain that Indian ports and Indian ships have proved a source of danger to Egypt, and through Egypt to other countries.

The boards proceed on the assumption that prevalence of cholera in India means increased danger to Europe; but this is an assumption which is altogether negatived by past experience, and it would appear rather that when cholera is in comparative abeyance in India is the time of danger to other countries.

Again, it is admitted that the land traffic cannot be brought under quarantine restrictions; and so we have this very remarkable state of things, that while traffic of the land along which cholera does appear is practically left to itself, the traffic along the sea route, which is so singularly free from cholera, is subject to a never-ending interference.

If all this be the truth—as I believe it is—it is abundantly clear that these boards have really no basis whatever on which to form an opinion, and that their action—harassing and annoying as it is to trade, and the cause of serious loss to shipowners—can be of no practical benefit to anyone. It would be much better if the time and money expended in quarantine arrangements were devoted to cleansing the towns of Egypt and other countries where the conditions are so favourable for disease. The maritime nations of Southern Europe are no doubt fully impressed with the belief that quarantine can protect them—especially from cholera. There can be no objection to give in to their prejudices in any reasonable way. The Constantinople and Vienna Conferences both expressed a decided opinion that the period of incubation of cholera did not exceed eight or ten days; and if this statement were acted on in practice the prejudices of all who believe in quarantine would be respected, while trade would suffer no injury; for the instances in which cholera has appeared on board ships going from Indian ports to the Red Sea are so extremely rare that they need hardly be taken into account.

There is yet another, and, if possible, greater evil still which results from the views regarding the causation of disease so common in the present day, and that is that the importance of sanitary improvement does not receive that attention which it ought to do. If disease be due to a specific germ, then there is no danger to the community so long as that specific germ is not introduced. The place may be in the most unsatisfactory condition, both as to its conservancy, its drainage, or its water-supply; but, if the specific germ does not find entrance, these conditions are of little or no importance. But if, on the other hand, it is believed that disease is in the main the product of insanitary conditions, the community will be much more likely to bestir itself to improve them. They will feel that it is not sufficient to put their water-supply, or their drainage, or their conservancy in a proper state, lest some germ should be introduced; but that it is absolutely necessary, if they are to maintain a good standard of health, that they should have these requisites at all times. There is no doubt something which is acceptable to the human mind in the theory which ascribes disease to somebody else; which is satisfied with the explanation that the mysterious "it" was brought by some one else; which is willing to blame others, instead of blaming oneself, for the neglect of sanitary arrangements. The one idea that seems in the present day to pervade the minds of many men in regard to sanitary matters, is that if a person is suffering from a so-called contagious disease he should be immediately isolated, or, in other words, put in a sort of medical prison. The improvement of sanitary conditions is to them a matter of singularly little moment: and yet the only safe and practical sanitary creed is that disease is not to be prevented by any such means; that it is due to causes existing chiefly in the locality where it occurs; and that it will continue to exist until these causes have been removed.

In regard to small-pox, no doubt, we have a special means of precaution in vaccination, but even with regard to small-pox it seems extraordinary how the danger arising from the sick person seems to overshadow everything else. In India, more especially, such procedure is attended with very lamentable results. We endeavour to persuade the natives of India that vaccination is an admirable protection against small-pox, and yet the moment a case of small-pox is heard



of there is the greatest alarm, just as if vaccination were no protection whatever. The natives are not slow to reason from the facts which come under their observation, and are little likely to place reliance in vaccination when they see that those who applaud it so loudly believe in it so little themselves.

People seem to think that if a germ could be discovered as a cause of every disease a great advance would be made not only in our knowledge, but in our means of preventing disease. Knowledge on all points is much to be desired, and if it should appear hereafter that diseases are really due to germs, the question will then arise, What action can be taken in regard to them? But it seems to me that the discovery of disease germs, which people hail with so much satisfaction, would be very far from a gain to the human race. For, if a germ can only be distinguished and discovered by a high-power microscope, it seems hardly probable that it can ever be dealt with in practice by a sanitary police. Cleanliness in every form, cleanliness of the air, of the water, and of the soil, are the great ends to be aimed at. The great lessons I would draw from the experience of India in such matters are—

1st.—The importance of ascertaining the facts, both those respecting the localities immediately concerned and the general history of disease at the time, and of recording them *all fully*, instead of recording only those which tell either on the one side or on the other.

2nd.—Having collected *all* the facts, we must assume nothing, and draw from them no conclusions except such as are strictly logical.

3rd.—That, however the questions may be affected by further research, the doctrines of germs or contagia communicated from the sick to the healthy will not account for Indian epidemics, and especially not for epidemics of cholera and prevalence of enteric fever among European soldiers serving in India.

4th.—That to diminish fevers of all kinds, to diminish cholera, and to diminish small-pox—the three greatest forms of Indian disease—the real and only practical remedy is the improvement of local sanitary conditions, largely aided in the case of small-pox by vaccination.

In illustration of what I have said I might give many examples derived from an experience of nearly twenty years in the Sanitary Department of India, but I have already detained you long enough. I am well aware that the views which I have expressed are not those which are generally accepted or which are generally acceptable to the medical profession, but I can say that they are the result of an honest endeavour made over many years to arrive at the truth. I advance them in no spirit of dogmatism, for I feel that the subjects to which they refer are beset with difficulty, and that it is only by a patient and persevering analysis of the facts that we can ever hope to frame those wise measures which are best calculated to prevent disease.

*Postscript.*—Here my paper, as I wrote it some days ago, ended, but since then news has arrived that cholera has broken out in Damietta and in other parts of Egypt, and all that I have said acquires an immediate importance which I had not anticipated. I prefer to leave what I have written untouched, but there are two questions which the cholera in Egypt suggests, and to which I would ask your attention for a very few minutes. How did the cholera appear in Egypt? and secondly, What can be done to arrest it? In reply to the first question, the believers in the cholera germs will no doubt say that it must have been brought from India somehow or other. We shall see hereafter what proof can be advanced in favour of this idea. Certainly there is nothing very tangible, or we should have heard of it long ere this, and the British Government would have been upbraided, as it has already been, for allowing the cholera to get out of India. If the Sanitary Boards are to justify their very existence, they must prove that cholera was brought from India, either directly or indirectly, and that their quarantine failed only because it was not sufficiently stringent. It will be time enough to examine the supposed facts when they are announced, but there is one important fact which is worth all the theory in the world, and that is, that the cholera broke out not at Suez or along the Suez Canal, or at any port of the country through which the Indian traffic passes, but at the remote and decayed port of Damietta, where there is no Indian traffic at all. And there is another fact, that all along the line of Indian traffic

from Suez upwards, so far as we yet know, there has been no cholera at all. But the second is the more important question, and that is—What ought to be done? Results have already shown this, as I knew they would, that quarantine cannot keep out cholera, and that sanitary cordons, as they are miscalled, are perfectly powerless to isolate it. The misery, and alarm, and mischief in every form that must be caused by all that is being done in Egypt under the misnomer of sanitation is sad to think of. It is indeed lamentable, in this nineteenth century, to read of soldiers with fixed bayonets attempting to stay the cholera; they might just as well attempt with fixed bayonets to stay the wind, or the rain-cloud, or the thunderstorm. These Sanitary Boards are indeed, I firmly believe, doing more harm than the cholera itself. The only real preventive of cholera, as I have already said, is sanitary improvement of every kind, and I trust that the lesson which this epidemic, if it go no further, so forcibly teaches may not be lost. Every effort should be made to put our house in order in case the storm comes, and to collect information to guide us in future epidemics. If the cholera should come it will come first in isolated cases, and it is of the highest importance that the most complete account of these cases should be recorded.

PRACTICAL NOTES ON  
THE ORDINARY DISEASES OF INDIA,  
ESPECIALLY THOSE PREVALENT IN BENGAL.  
By NORMAN CHEVERS, C.I.E., M.D.

(Continued from page 640 of last volume.)

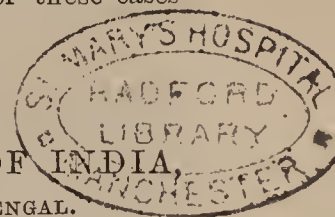
TREATMENT OF TERAI FEVER AND OF OTHER  
PERNICIOUS FORMS OF REMITTENT.

OF late, Quinine has been regarded as the chief remedy in these Pernicious Fevers, travellers generally taking a supply with them; as Macdonald, writing in 1843, tells us, "Those of some experience in these fevers never omit carrying a supply of calomel, which they use in large doses, often with the effect of checking the disorder." A military surgeon of great experience, who mentioned that he had treated about two thousand cases of bad Remittent Fever writing in 1839,(a) stated that he had lost only about twelve patients. He appears to have been attached to the force of Sir David Ochterloney in their progress through the Nepaul Terai. He remarks, "My opinion is not singular that mercury in the treatment of Remittent Fever approaches as nearly as possible to a specific" . . . "when ptialism is produced." He says, "I was informed by an eminent medical gentleman, who observed sixteen cases of the Terai Fever at the verge of the forest as it runs along the range of hills near Almora. These cases were in the second stage and of a deep yellow colour; the first stage came on in the forest, so that they had taken no medicine. He considered these patients on the very verge of death; but yet, convinced, from what he had previously observed of the disease, that a bold measure was now the only means of saving them, he at once gave each *sixty* grains of calomel, and followed it up till ptialism took place. Strange to say, he did not lose a man." . . . "I was informed by a young medical friend at Cawnpore that he had tried scruple doses of calomel five times a day with the most eminent success in Remittent Fever, both with Europeans and natives."

Dr. Sullivan gives Quinine and calomel freely in the *algide* pernicious state, as I did in the *convulsive* form. In the *comatose* form, when there is spasm of the pharynx or oesophagus preventing swallowing, Dr. Sullivan administers quinine by the rectum and hypodermically, as well as by rubbing in an alcoholic solution of the alkaloid, so as to cause absorption.

Webb's plan of treating the *algide* form, principally by calomel and opium, bleeding, and turpentine enemata and

(a) In the Treatment of Jungle or Remittent Fever, of Hindoostan, Ptialism is a Sign of Cure which is rendered Permanent by change of air.—*Indian Journal of Medical and Physical Science*, vol. vi., page 773.





draughts, preceded by a hot bath (a very dangerous item of treatment in the collapse stage of cholera) for twenty minutes, was found so effectual that he could confidently trust it in the hands of the native doctor.

I was struck by noticing, three years ago, that Professor Fordyce Barker, of New York, (b) considers that Warburg's Tincture is a far more effectual and speedy remedy in malarious fever than the largest doses of quinia. When I first went to India more than one leading authority highly valued "Warburg" in *Terai* Fever. Some considered, as Dr. W. S. Stiven did, that this agent owed its febrifuge power to *Berberis Lycium*, the famed *λυκίον* of the ancients, represented by the Rusot of Indian Bazars and its alkaloid Berberite. Sir William O'Shaughnessy Brooke found the rusot useful in intermittent fever. In Dr. Morehead's hands it "proved unequal to preventing the paroxysm of ordinary intermittents. Of late years I heard little or nothing about it or Warburg's Tincture (which was considered an unpleasant agent). Indeed, to use the euphuistic phrase of one of my native students, it does not "come within the chancery of my imagination" to rely upon any drug but quinia in this class of fevers when life is endangered. (c)

It was not until after I had sent the final proof of the above paragraph to press that I noticed (d) that Dr. Warburg communicated the formula of his tincture to Inspector-General Maclean in 1875. He states that Quinine, in combination with a number of aromatics, is the active ingredient. Dr. Maclean adds his own high authority to the evidence of those who have found this tincture "a remedy of great power in all malarial fevers."

I need scarcely add that, if Dr. Warburg had not held the composition of his tincture a secret from the profession throughout my Indian career, I should probably have now been able to state that I had fully tested its efficacy in the treatment of grave Indian fevers.

#### MALARIAL CACHEXIA.

It is certain that many of the gravest diseases of India, not generally classified with those which are directly produced by malaria, are largely due to this cause. Among these may be numbered Asiatic Cholera, Dysentery, Suppurative Hepatitis, Land Scurvy, Sloughing of the Cornea, Menorrhagia, a tendency to Abort, Post-partum Hæmorrhage, Puerperal Fever, Tetanus, Chronic Muscular and Articular Rheumatism, Pneumonia, and certain prevalent forms of Diarrhœa. Morehead says: (e)—"There can be no question that much of the mortality attributable in India to 'bowel complaints' is, though indirectly, yet chargeable to the account of malarious fever." This just remark has, I am satisfied, application to that very prevalent form of deadly chronic intestinal flux which is so destructive to the lives of ill-fed Bengalees that I have termed it *Morbus Bengalensis*. Hence much of the inclination of some of our first authorities to conclude that, in India, True Enteric and Relapsing Fever are wholly due (as they probably are in part) to "climatic causes"—i.e., to Malaria. It would scarcely be an exaggeration to affirm that this malarious cachexia is, more or less, the acquired constitutional state of everyone who has resided long in India. Everywhere in that country, and in the persons of all old Indians there and at home, the malarious taint is detectable in almost every kind of disease. In this chapter, however, I shall confine my remarks as much as possible to those conditions of disease which either follow Malarious Fevers in India or are more or less directly traceable to the operation of Malaria in that country.

(b) *Medical Times and Gazette*, vol. i. for 1880, page 327.

(c) For information regarding *Berberis Lycium*, vide Sir James Simpson on some Ancient Greek Medicinal Vases for containing Lykion, and the Modern Use of the same Drug in India; O'Shaughnessy's "Bengal Dispensatory," page 203; Dr. Kenneth Mackinnon, *Indian Annals of Medical Science*, No. v., page 161. A friend of Dr. Mackinnon's wrote from the Neilgherries, "I find that the medicine [Warburg's] is a favourite one with the Madras Medical Officers, who use it in all desperate cases, and with a success that is very surprising. —, who is travelling to join one of the regiments of the Hyderabad Contingent, had to pass through a jungly country, and caught a bad fever. He was for two days comatose and in a hopeless state, when the Warburg's Drops were given as a last resource. The effect was powerful and almost immediate, and he has continued to get on very well." Dr. Stiven, *Indian Annals*, No. vi., page 416; Dr. Francis, *ibid.*, page 452.

(d) Dr. Maclean's article, Intermittent Fever, "Quain's Dictionary of Medicine," page 735.

(e) *Ibid.*, page 25.

#### SPLenic HYPERTROPHY,

so well known to those practising in the malarious districts of England as "ague cake," is of great but exceedingly unequal prevalence throughout the larger portion of the plains of India. The occurrence of splenic hypertrophy, as a result of paludal fever, is ruled by laws of which we have no knowledge. It appears to depend not upon the type or severity of fever, but upon peculiarities of locality and race. Thus, as we shall presently see that Elephantiasis prevails only in marshy districts within the range of the sea breeze, and that, where it is most prevalent among natives, it very rarely attacks Europeans,—so Splenic Hypertrophy, while it is not generally prevalent among Europeans, is most common among natives in the plain country of Bengal and Bombay, but is comparatively rare in the Madras Presidency. Thus, in *Bombay*, Morehead found that, out of 243 clinical cases of Intermittent Fever, enlargement of the spleen was present in ninety-one. The infrequency of this lesion in the *Madras* Presidency was noticed by Annesley. In the Deccan, during five years ending June, 1855, in an average strength of 10,500 men, there were 15,684 admissions for fever, which were generally amenable to quinine. Out of these, there were only thirty-nine for splenic disease, with two deaths. Dr. Francis Day adds that in none "of his own cases of fever in the 3rd Regiment of Infantry, Hyderabad Contingent, at Bolarum, could enlargement of the spleen be detected." Doubtless the general immunity from this lesion enjoyed by the European inhabitants of malarious districts is, in a large measure, due to the promptitude with which their attacks of fever are encountered and to the superiority of their hygienic surroundings. Still, this is far from affording a full explanation of the difficulty, seeing how great has been the prevalence of "spleen" among Europeans in certain localities. It has been the leading characteristic of Peshawar fever among our European troops. This condition was almost inseparable from Chittagong Fever in natives; but, during a residence of more than three years, I never saw it there in a European. Although, as I have said, I believe that I had splenic enlargement when a child in the Kentish marshes, I have never, in thirty-three years' suffering from Chittagong and Calcutta fever and their sequelæ, experienced the very slightest evidence of splenic uneasiness or enlargement. Splenic hypertrophy is very common among natives in and around Calcutta, but I do not recollect ever to have seen a European who got "spleen" there; whereas, at Mutlah or Port Canning, forty miles from Calcutta, some five days' fever brought the spleen down in robust European sailors just come in from sea. I should recognise a recent Mutlah spleen now. It appeared like a goose-egg below the ribs in front. One of my patients, a magnificently developed gigantic young northern sailor, died from rupture of such an acutely enlarged spleen, this lesion being, apparently, quite spontaneous. (f) When Peshawar Fever and Spleen were most prevalent thirty years ago among our European soldiers, the native inhabitants of the Valley were not at all remarkably liable to these diseases. Otherwise, my own personal experience of "Spleen," in well-to-do Europeans, is very small indeed. I can only recall two cases. One of these occurred in Bengal, the other in the N.W. Provinces. Both the sufferers were officers enthusiastically devoted to the pursuit of game in malarious localities.

I need scarcely add that, whether our patient be a native or a European, we neglect his case if we do not examine the spleen at every stage of malarious fever.

In 1845, Government received so many reports of the prevalence of fever along the line of the Delhi Canal, that they appointed two engineers and a medical officer to report upon the health of the inhabitants of that large portion of the N.W. Provinces which was under irrigation. It was suggested by the medical member, the late Dr. T. E. Dempster, that the condition of the spleen in any given number of individuals would be a fair test of the frequency and degree in which they had suffered from malarious influence. This test was applied as follows. At each place, twenty children (it being believed that young persons are more liable to enlargement of the spleen than adults) and twenty adults were selected, the chief care being to take a

(f) This poor fellow suffered from a very noteworthy symptom—an unceasing call to empty the bladder. I also saw this in the case of Chief Justice Norman, who died from stabs in the belly, the cause being pressure by blood collected in the pelvis.



fair sample, not of the sick, but of the "going about" population. The Committee travelled about 1400 miles, visited more than 300 inhabited localities, and examined upwards of 12,000 individuals of all ages in both irrigated and unirrigated districts. It was found that, in places irrigated from the Western and Eastern Jumna Canals, the percentage of enlarged spleens ranged from 16 to 59 among adults and children of all classes, the proportion of instances in which the percentage was 25 and upwards being as 8 to 5 of those in which it was below that rate. In lands irrigated from wells, in the high land of the Doonab, only 8 per cent. of enlarged spleens were found; in unirrigated countries the percentage ranged from 3 to 44; in naturally malarious localities, from 34 to 44. (g)

Thus originated what has ever since been known as "*Dempster's Spleen Test*," which can never be neglected without danger when new ground has to be taken up for cantonments, etc.

The association of *Splenic Disease and Scorbutus* has been often observed in India and elsewhere, and in both sea and land scurvy. (h) As I have already stated, the latter disease is of great prevalence in India generally, and especially in certain districts, as in Behar and Scinde. It would be very interesting if officers on tour through such districts would observe and report how far Scorbutus and Spleen are associated in their inhabitants.

So common among the poor in India is splenic disease, and so fragile is the organ in many cases of men quite capable of performing their daily work, that it might almost be laid down as a rule that to beat or kick a native is to endanger his life (*vide* my "*Medical Jurisprudence for India*," pages 457-67).

Immense spleens are daily met with in most of the native hospitals in the plains of Bengal and Bombay. The extreme limits of enlargement are from about the level of the sixth rib, when the lung and heart are pressed upwards (i) from the spine to the right of the umbilicus, and down to Poupart's ligament or below it. In examination, we percuss the left chest, and then, the patient lying down, we place the open hand, in front, over the left hypochondrium, where the mass of the enlarged organ is felt. If there be ascites, we give the spleen sudden but gentle pressure backwards with the forefinger. It generally sinks in the fluid, touches the spinal column, and immediately rises again, striking the finger sharply as in *ballottement*. We then run the finger across the tumour at its broadest part until we feel an abrupt rounded edge, when we easily trace its very defined inner margin often from the scrobiculus cordis to the pubes. We must be careful to do all this with a perfectly light touch; these spleens are often too tender to bear any "punching" and rough handling.

The following is a description of the condition of an hypertrophied spleen in the museum of the Calcutta Medical College, given by Dr. Joseph Ewart in his admirable Catalogue:—

"Specimen 547. Enlargement of the Spleen from Malarious Fever.—The peritoneal covering and capsule are much thickened and puckered from organised inflammatory exudation. In the depressions caused by this contraction the adventitious tissue exists in greatest abundance. The capsule and peritoneum, as they are seen on section inseparably united, measure about a line in thickness. The trabeculae are thickened and very distinct, the interspaces large, and filled with the spleen-pulp. The density and compactness of the organ is greater as we examine it from centre to circumference. About an inch of the periphery is so compact that the trabecular spaces do not exceed the diameter of a pin's head, whilst many of those towards the central region of the spleen are large enough to contain a pea."

Where the spleen slowly enlarges under repeated attacks of fever, inflammation probably has little or nothing to do

(g) "Notes on the Application of the Test of Organic Disease of the Spleen as an Easy and Certain Method of detecting Malarious Localities in Hot Climates" (1848); and an additional communication, *Indian Annals of Medical Science*, for January, 1853, page 293. It was found that the prevailing sickness was not due to irrigation, but to the canal works or the watercourses of private individuals having intercepted the natural drainage of the country; and having thus led to the formation of swampy tracts, diffusing malarious influence around them.

(h) See a valuable paper by Surgeon-General W. A. Green, "Cases of Sea Scurvy, of Scorbutic or Putro-dynamic Fever, and of Fever complicated with severe Spleen Disease; with Remarks to point out severally a similarity in their probable causes, in their nature, and in some of their symptoms."—*Trans. Med. and Phys. Society of Bengal*, 1839.

(i) Morehead, page 36.

with originating the process; such inflammation as occurs is intercurrent. But many enlarged spleens present such marked traces of inflammation externally, peritoneal opacity, contraction and thickening, adhesion to the diaphragm, etc., and inflammatory sub-capsular deposit, that we cannot doubt that "*splenitis*" has been present. The spleen may be very tender under pressure when its enlargement has been sudden, and in many cases there has been local peritonitis. Probably this inflammation of the splenic peritoneum occurred in some at least of the splenic cases at Peshawar mentioned above, and gave a colouring of reason to the practice of leeching which I have described.

(To be continued.)

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### THE MIDDLESEX HOSPITAL.

#### ABDOMINAL ANEURISM—RUPTURE INTO DUODENUM.

(Under the care of Dr. COUPLAND.)

CHRISTOPHER B., aged seventy-two, a labourer, was admitted into Founder Ward on March 16, 1883, in a marked condition of collapse. His features were pinched, lips pale and livid, surface of body and extremities cold, voice feeble, pulse thready.

He had suffered from gout for several years, and had constantly been subject to a cough for the last eight or nine years; always worse in the winter. He dated his present illness from last Christmas, when he was laid up with gout. Since then he had lost flesh and become very weak; had suffered from pains all over the body, and especially in the abdomen, and from cough. He had had no vomiting; but his appetite was bad, and bowels very constipated. For a few days before admission he had become much weaker and unable to walk.

On examination of the abdomen the walls were seen to be flaccid, and there was marked tenderness in the right hypochondrium. A firm tumour of an irregularly oval shape could be felt in the epigastric region on the right of the middle line, projecting apparently from below the margin of the liver. The tumour reached to within half an inch of the umbilicus, and measured transversely three inches and a half, vertically two inches; it was very tender on manipulation, and pulsated with the aorta. Pulsation appeared to be transmitted; it was not expansile. No bruit. There were marked signs of pulmonary emphysema, and a few subcrepitant râles at the base of the lungs. The præcordial dullness was obscured; cardiac sounds very faint.

Under stimulants and warmth he rallied from the state of collapse, but during the first few hours the bowels were twice opened, and on each occasion some black tarry blood was passed. There was no recurrence of this hæmorrhage until just before his death, twelve days later; and no change was observed in the tumour, which throughout remained very tender. He suffered at times with abdominal pain, particularly on the 22nd, requiring hypodermic injections of morphia for its relief. There was also throughout a certain amount of bronchitis, but otherwise no further special features in the case. The urine was free from albumen (specific gravity 1018 to 1020), and frequently deposited uric acid crystals.

On March 27 he again became somewhat collapsed, and on the 28th, after having complained during the morning of more pain than usual, he died somewhat suddenly. A motion passed just before death contained tarry blood.

*Post-mortem Examination by Dr. Fowler, sixteen hours after Death.*—Emaciated; integuments pallid; marked post-mortem lividity. The peritoneal cavity contained a few ounces of clear serum; the peritoneum was normal. There were a few old fibrous adhesions over both pleuræ. No fluid in the pleural sacs. The bronchi contained frothy mucus; the mucous membrane was congested. The lungs were crepitant throughout, but engorged and œdematous, especially the lower lobe of the right lung. There were large emphysematous bullæ along the anterior edges and base of both



POISONING BY CARBOLIC ACID.—The *Indian Med. Gaz.* for May contains an elaborate article on a criminal trial—The Empress of India v. U. K. Dutt, L.F.P.&S. Glasg., and L.R.C.P. Edin. The accused was arraigned for having caused the death of a child five years of age, suffering from ascarides, by administering an enema containing eighteen ounces of a one-in-sixty solution of carbolic acid, representing 144 grains of the acid. The jury found the prisoner guilty under the count which charged him with causing death by a rash and negligent act, but strongly recommended him to mercy. He was sentenced to a fine of Rs. 500.

(Free by post.)

*Cheques or Post-office Orders should be made payable to Mr.*  
JAMES LUCAS, 11, New Burlington-street, W.

THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

SATURDAY, JULY 21, 1883.

THE recent election to the Council of the Royal College of Surgeons has aroused so much feeling, which has been so strongly expressed, that we have postponed its consideration until a short time has given opportunity for the feeling to subside, and for a calm and temperate treatment of the subject to have a chance of a fair hearing. It must first be understood that there are two totally distinct and different questions at issue, and that the repugnance that has been felt for the one has been, as so often happens in similar cases, illogically transferred to the other. It has been for years past felt by the provincial Fellows that they were placed at a disadvantage in this election in comparison with their London brethren. The latter could exercise their franchise at a merely nominal expenditure of money and time; to the former the time and expense involved in a personal attendance at Lincoln's-inn-fields were so great as virtually to amount to disfranchisement. Why, they said, should we be put to the fatigue of a journey, the loss of a day's work, the expense, perhaps, of a night's lodging in addition to our railway fares, when our purpose could be served equally well, as is shown by the practice at universities and other public bodies, by merely putting a letter in the post? The reality of the grievance is seen in the fact that provincial Fellows have always formed an insignificant minority in the Council. The consciousness of suffering under a disability and a grievance has grown and strengthened year by year, until at length an Association of Fellows has been formed for the purpose of forwarding the election of those candidates who are in favour of a more convenient method of voting. To this end the Association sent inquiries to the several candidates who appeared in the field at the last election, as to whether they were prepared to support a scheme by which provincial Fellows could exercise their right of voting without being put to the trouble and expense and loss of time involved in a personal visit to



Lincoln's-inn-fields. Some other inquiry was made at the same time, but virtually it was understood that the votes represented by the Association would be determined by the way in which this question was answered. So far, the only question at issue has been the desirability or not of altering the method of election; but now an entirely different question starts into sudden prominence. The circular of the President of the Association, in which these inquiries were put, aroused, on the part of a few of the candidates to whom they were addressed, such a burst of angry feeling as is, happily, but seldom witnessed between members of our profession. Although it merely inquired whether the candidate was "prepared, if elected upon the Council of the Royal College of Surgeons, to support measures to obtain" such and such alterations in the charter, and although it was, as need hardly be said, couched in the most courteous terms, it was denounced as an "impertinent interference"; and the epithets, "brass," "Brummagem," "caucus," and still stronger expressions were flung at the President and members of the Association. However much these candidates might have resented the inquiry of the circular, it would have been more seemly to treat with ordinary courtesy a request coming from more than two hundred of their professional brethren and signed by a distinguished name. After all, what is the gravamen of the charges brought against Fellows belonging to the Association? It is this: that being entrusted by Royal Charter with the privilege and the duty of controlling the management of one of the most important scientific institutions in existence, they have endeavoured to perform this duty in the ordinary constitutional manner. They look upon a seat on the Council of the Royal College of Surgeons not as an empty dignity which a metropolitan surgeon can secure by the assent and help of colleagues, neighbours, and former pupils, but as an important trust which ought not to be bestowed save by the suffrages of all those who are placed by the State in the position of electors. The position of the protesting candidates cannot be deemed dignified. They come forward of their own free will and motion, and ask to be elected as representatives of their brother Fellows; and yet when the electors venture to put a single question as to whether the opinions of their would-be representatives are in accordance with their own, some of the candidates are utterly shocked by the "impertinent interference"! This point—*i.e.*, to say whether a *representative* is one who represents those who elect him, and who have therefore a right to know his opinions on particular subjects—is not one that needs discussion in these days; and to scold at electors for asking a candidate's views is too absurd a mistake to call for much notice. As to the main matter in question, the method of voting, it has been referred by the Council of the College to an excellent committee for consideration and report. This committee consists of Sir James Paget, Sir Spencer Wells, Mr. Erichsen, Mr. Holmes, and the three provincial members, Dr. Humphry, Mr. Cadge, and Mr. Lund; together with the President and Vice-Presidents, *ex officio*. Such a committee cannot fail to give a full and impartial consideration to every point involved in the inquiry entrusted to them.

#### "PREVIOUS" SEWAGE CONTAMINATION.

THAT the presence of nitrates and nitrites in water is an indication of sewage contamination is one of the best established facts in this department of chemistry, these bodies being produced by the oxidation of organic nitrogenous matter; and accordingly, waters containing any appreciable amount of nitrites and nitrates have justly been condemned. But it would seem from recent observations made by Dr. Ashby and Mr. Hehner that the time required

for the change in question has been much over-estimated. It has recently been shown that the process is not a purely chemical one, but that the transformation is brought about by organisms of a low type, though much obscurity still surrounds their precise nature and their relations to other bacteria. To Professor Frankland we owe the phrase "previous sewage contamination," now very generally accepted in the belief that the process of "nitrification" demands a considerable lapse of time for its completion. It is, however, not easy to reconcile such a belief with the highly dangerous character of some waters, the pollution of which must, consistently with it, have occurred at comparatively remote date, and which should have undergone a long process of self-purification. The analyses and observations of Messrs. Ashby and Hehner on the wells of Derby and Newark show that in numerous cases where the wells were shallow (*i.e.*, from eight to twenty feet), and the sources of pollution, cesspools, broken drains, etc., in close proximity (*viz.*, from two to fifty yards), there was, along with much nitric acid, little free and small or moderate quantities of organic ammonia. The nitrates, though approximately measuring the amount of sewage contamination, certainly did not indicate previous, in the sense of remote, contamination, for the pollution was manifestly direct and very recent. Nay more, in newly made wells in quarters but lately built on, the oxidation was often less complete, while in places where the soil was saturated with sewage, nitrification proceeded with amazing rapidity. In the Newark wells the nitrogen of the albuminoid ammonia (which, by the way, does not represent the whole, or even a constant proportion, of the unchanged organic matter) was to that of the nitric acid as 1 to 7000. It must therefore represent some very different and more permanent form of organic matter, and may represent the bacteria or germs by which the rest was nitrified, and those which, whether the same or others, are the actual agents in the propagation of disease. Since it must require myriads of bacteria to yield a ponderable amount of albuminoid ammonia (the more so since only a part of their nitrogen is represented as such by the ordinary process), it follows that the very smallest quantity may indicate a highly dangerous character; and also that, contrary to the opinion of Dr. Tidy, who asserts that the more readily oxidisable matter is the more injurious as being the more putrescent, that which longest resists oxidation, as being living, active, and disease-bearing, may be the worst. Certainly greater importance must in future be attached to minute quantities of organic matter if accompanied by a larger proportion of nitrates, chlorides, phosphates, and sulphates than in unpolluted waters of the same geological formation. But, to our mind, the lesson most clearly taught by these analyses is the duty of having more recourse to the microscope in the examination of water, as Dr. Hassall long since taught us to do in that of foods. Of course, higher powers will be needed for the detection of minute bodies like bacilli, micrococci, and spores, but the chief difficulty to be overcome lies in the concentration of large volumes of water in order to obtain any number of organisms too light for collection by mere subsidence. The researches of Professors Mallet and Martin, carried on under the direction of the National Board of Health of the United States, and published in abstract in its last *Bulletin*, pointed in this direction; but they were unfortunately broken off by the dissolution of the Board before any very definite results had been achieved.

#### CREDULITY, SCEPTICISM, AND AGNOSTICISM IN SCIENCE.

LAST week we were able to publish a brief abstract of the Address on Cholera delivered by Surgeon-General J. M.



Cunningham before the Epidemiological Society; but since then we have unexpectedly received the address in full. The subject treated of is so important, and it is so ably dealt with, that we gladly risk the appearance of repetition, and place the paper *in extenso* before the profession; and all the more willingly because we cannot altogether accept Dr. Cunningham's views.

Since the time when Chauveau demonstrated that the energy of vaccine-lymph resided neither in the albuminous fluid nor in the leucocytes, but solely in certain minute bodies which he called microzymes, the search for material living agents as the essential and efficient causes of disease—at least of those commonly described as infectious and infective—has been pursued with untiring zeal, and not without considerable success. The pure cultivation introduced by Koch has eliminated many of the sources of error inseparable from the reckless and slovenly methods of the French school, and has led its originator to reject as unproven, if not actually erroneous, the hasty conclusions of men like Buchner on the life-history of bacteria. But we must admit that the fascination of this line of research has allured other less careful observers into a veritable bacteriolatry; and, unmindful that bacteria are everywhere present in earth, air, and water, into raising to the rank of a specific pathological agent any bacillus they may find in the fluids or solids of a diseased organism. Under such circumstances we welcome any assertion of a healthy scepticism; and any protests against generalisations drawn from few and undigested facts, from observations not subjected to the most rigorous and exact scientific examination, and founded on instances of mere accidental coincidence or sequence. So far as Dr. Cunningham, in his paper on Cholera, proceeds on these lines, we heartily agree with him. He insisted on the danger of mistaking the *post* for the *propter*, of founding a theory on facts, however numerous, all favourable thereto, while ignoring even one opposite fact which might be sufficient to upset the whole fabric of hypotheses; or, coming to particular cases, he deprecated the assumption of a material cause while ignoring sanitary, climatic, and meteorological conditions, as referring the outbreak of a disease to importation when human intercourse had not been previously followed by any such occurrence. But we may be sceptics without being agnostics; and it is indeed a severe reflection on the acuteness of those who, as he maintains, have enjoyed unrivalled opportunities of watching and studying cholera in its home, to assert that as yet we know nothing whatever as to its cause or nature. And we venture to protest against his statement "that there was no evidence to prove that it is caused by any special contagium developed in the bodies of the sick, and communicated, either directly or indirectly, by human intercourse"! If so, why has it in Europe, and from Europe to America, invariably followed the great routes of trade? why has it, in countries which have direct communication by sea only with others where it is endemic or epidemic, invariably made its first appearance in those seaport towns which lie in the routes of such intercourse, and as constantly among persons just arrived from infected ports abroad? It appears at Marseilles and Havre before Paris, at Southampton, Liverpool, and Hull before Manchester and the Yorkshire manufacturing towns, whose sanitary condition is in nowise better; and though the vast and ill-managed armies of the American Civil War were decimated by disease of every kind, they escaped cholera, which appeared in New York, and spread thence after, and only after, each of the five several epidemics in Germany and England. The argument of Dr. Cunningham, that the attendants on the sick rarely take the disease, is beside the mark. No one now asserts the *contagiousness* of cholera; the same degree of

immunity is observed in enteric fever, though not in typhus or other strictly contagious fevers. Dr. Cunningham goes so far as to deprecate the isolation and removal to hospital of fever patients generally as cruel and comparatively useless, and would trust to improved sanitation alone. In this, we fancy, few will be willing to follow him. He denies that any "germ" has yet been proved to be of itself and alone capable of producing a disease, and triumphantly points to the recent observation of Spina that other bacilli are totally indistinguishable from the alleged tubercle bacillus of Koch. Very well; the ova of man, ox, and dog are indistinguishable, but no one doubts their specific character; and if, as Watson Cheyne has proved, the tubercle bacillus after hundreds of successive cultivations in gelatinised broth never fails to induce tuberculosis when inoculated into the anterior chamber of the eye, whence it spreads to the organs generally, what matters it if it be microscopically and chemically indistinguishable from others which show their specific difference by their inertness? It is perfectly true that, as Dr. Cunningham insists, diseases may be induced by "forces" without the intervention of "entities," but herein consists the difference between such diseases as pleurisy and sunstroke, and such as hydrophobia, small-pox, and syphilis. Nor would the strongest advocate of sanitary measures as preventives deny that in vaccination and in anthrax (whether of beast or man) there is a material something, whether organised or not, essentially involved. Even as regards cholera, we doubt whether Dr. Cunningham would consent to drink water containing cholera stools, though he might be resident in Hygieopolis itself.

We entirely agree with him as to the uselessness of quarantine *as practised*, especially by land, but only because an efficient quarantine is practically impossible; we would, however, point to the Moravian settlements on the Volga, which, though in the line of each epidemic, have always escaped by maintaining an absolute isolation from the outer world, such as would be impossible for any commercial community. Space forbids our discussing Dr. Cunningham's paper in detail, but we must say that, with the exception of a few assertions which he does not attempt to substantiate, his facts are, it seems to us, entirely compatible with the views received in this country, and his conclusions do not appear convincing. We are well aware that several eminent Indian authorities agree with him, but others of equal weight, as Dr. Parkes, do not. As to the influence of sanitary conditions on cholera, we have expressed our opinions in a recent number of this journal.

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## THE WEEK.

### TOPICS OF THE DAY.

A MEETING of representatives interested in the extramural medical schools in Scotland was held on the 12th inst., in Edinburgh (Dr. Littlejohn, of that city, presiding), for the purpose of considering the Medical Act Amendment Bill so far as it affected the schools in question. After some discussion the following resolutions were adopted:—

1. "That in the opinion of this meeting, the position and interests of the extramural medical schools of Scotland were entirely overlooked by the late Royal Commission, and have been equally ignored by the Government in framing the Medical Act Amendment Bill, now in the House of Commons."
2. "That, should the Bill pass in its present form, the universities of Scotland, while retaining intact their monopoly in granting degrees, will, by their enormous majority on the Board, become also possessed of all examination and licensing power, and thus in Scotland will be the absolute masters of the portals of the profession; and that, in the



opinion of this meeting, a monopoly so complete will lead not only to the destruction of the extramural schools, but in the end will prove disastrous to the universities themselves, and to the cause of medical education in Scotland."

3. "That this meeting desires to impress upon the Government the fact that the origin and progress of extramural teaching in Scotland have been chiefly owing to its free and full recognition by the corporations, and that, there being no arrangements under the proposed Bill by which the extramural teachers can be directly represented on the proposed Medical Board for Scotland, the meeting is of opinion that each of the Scotch corporations should return at least two representatives to the Board, in order that the interests of the extramural schools may be preserved." It was agreed to forward a copy of these resolutions to the Government.

As we last week intimated would take place, a meeting has been held at the offices of the Local Government Board to consider the precautions against cholera. Sir Charles Dilke was in the chair; and there were also present—Lord Edmund Fitzmaurice, Sir W. Vernon Harcourt, Sir William Jenner, K.C.B., Sir Lyon Playfair, K.C.B., Sir Joseph Fayrer, K.C.S.I., Surgeon-General J. M. Cunningham (Sanitary Commissioner with the Government of India), Sir Charles Du Cane, Sir E. Currie, Dr. Buchanan, F.R.S., and some others. It was reported that the following private telegram had been received from Egypt:—"The cholera is diminishing. Most of the fatal cases have arisen from the fact of the victims having refused medical assistance, either because they imagine the epidemic to be the will of God or from other causes. There is little or no medical assistance. One Italian doctor at Damietta has over a hundred cases under his charge."

The supporters of the Westminster Sanitary Aid Association, and others interested in the health of that part of our huge metropolis, met lately, at the residence of Mr. W. H. Smith, M.P., with the object of extending the work commenced by the Association in preventing the spread of typhus, typhoid, and scarlet fever, and such like diseases. The Chairman, Archdeacon Farrar, explained that since the formation of the Association visitors had been appointed, who had worked by three methods—they had taught the practice of disinfection, the necessity of removing the patients and isolating them, and they had assisted the poor to carry out the necessary precautions. He showed that, with very small means, the Association in the course of the year had done much towards lessening the ever-flowing stream of human misery. He gave facts, from his own personal knowledge, of the great practical value of the Association, and expressed his deep regret that so small a sum as £250 had not yet been raised. Mrs. Johnstone, of Hastings, gave a *resumé* of her successful experiences in lessening the spread of infectious diseases, and urged the necessity of providing against infection, instead of waiting, as some unwise people would do, until an epidemic broke out. Mr. Barnard Holt, as medical officer of health for the district, warmly urged the need for voluntary help in preventing the spread of zymotic diseases, and further practical suggestions were made by other speakers. The Association deserves much more hearty support than appears to be given to it.

Although the evil effects of the present method of conducting work in the white-lead factories are continually being brought to notice through the deaths of those employed in them, little seems to be done by the Government to bring about a better state of affairs. Dr. Danford Thomas recently held an inquest at the Clerkenwell Coroner's Court, on the body of a woman aged twenty-four. The evidence given was that she had been engaged at

Jones's white-lead factory, Love-lane, Southwark; that she had latterly complained of pains in her head and stomach, and could not eat any anything. On the 5th inst. she had a fit, gradually grew worse, and died five days afterwards. The jury returned a verdict that the deceased died from epileptic convulsions, accelerated by debility and effects following white-lead poisoning. They desired the Coroner to communicate with the Home Secretary, and suggested that, pending legislation on the subject, there should be a printed code of instructions drawn up for the guidance of workers at white-lead factories, and that inspections of such factories by the Government inspector should be more frequent. It was stated that the factory had been visited by the Government inspector every six or nine months, and that the proprietor had been complimented upon the precautions taken to prevent lead-poisoning.

A festival dinner in aid of the funds of St. Mary's Hospital was recently held at Willis's Rooms, the Lord Mayor presiding. In proposing the toast of the evening, his Lordship observed that the late Prince Consort laid the foundation-stone of the Hospital in 1845, and in 1865 the Prince of Wales lent his assistance towards the extension of the building; and it was even now being added to, although it already contained 200 beds. The universal cry at the present time, he said, was that the demand upon our hospitals and dispensaries was increasing year by year. On the other hand, he did not find that the donations were on the increase; and in this respect St. Mary's Hospital was not different from the other similar institutions. The proposed extension of the Hospital, for which a legacy had been left, would require an increase in the income of nearly £3000. The total income required was £15,000, but the sum at the disposal of the Hospital from investments was only £1190. The Corporation of London had that day voted the charity a hundred guineas, and the City Guilds had also given handsome support to the institution. The result of the festival was a sum amounting to £2367, and promises of new annual subscriptions to the amount of £81.

We last week published the text of the Detention in Hospital Act, which the Government propose to bring forward as a substitute for the mutilated Contagious Diseases Acts, and the briefest consideration of the proposed measure will be sufficient to show that it will be perfectly inadequate to deal with such an important question. It would, of course, be of vital importance to have the power of detaining the women when once in hospital, but it is not explained in what manner they are to be got there. Meanwhile, as Lord Hartington stated in answer to a question in the House a few nights ago, since Mr. Stansfeld's resolution was carried the percentage of disease amongst the troops in the formerly protected districts has risen, even in such a short time, from 11·89 to 17·40 per 1000. There is not much to be hoped for from the present Government, but it might fairly be asked whether the authorities of the protected districts are not in a better position to know the beneficial operations of the old Acts than their sensational opponents, who, for the most part, reside in towns which the legislation in question did not touch. Some weight ought certainly to attach to the fact that the protected districts are unanimous in their desire to maintain the old Acts, and it is to be hoped that, before it is too late, the projected legislation in this direction may be enlarged sufficiently to restore the threatened efficiency of our Army in the large towns where they are principally quartered. But if the present Government can be brought for once to abandon its policy of expediency we shall be agreeably surprised.

Recent advices from Cairo cannot be said to be satisfactory from a sanitary point of view. Out of 6825 men in



the army of occupation, no less than 588 were in hospital. The Duke of Cornwall's regiment alone had 124 men sick out of a strength of 800. Sir Evelyn Wood had started for England, but, on receiving information of the appearance of cholera in Cairo, he at once returned to his post. The large Medical Commission which assembled at Cairo to examine into the outbreak have expressed an opinion that the disease is epidemic cholera, and they expressly wish that the word "epidemic" should be noted in contradistinction to "Asiatic." Extraordinary efforts are being made by the Commission to disinfect the city as much as possible, and to isolate houses and quarters where deaths have occurred. Meanwhile, the Commander-in-Chief has declared all the native bazaars in Cairo "out of bounds" for British troops, and preparations are being made for camping out at Helouan in case matters become urgent. Orders have also been given at Alexandria to remove the camp to the desert of Aboukir on the first symptoms of choleraic disease amongst the English soldiers. The medical staff in Egypt has been immediately increased, and those members of it who were on leave have been ordered to rejoin at once. The report from Alexandria, July 18, of the deaths from cholera during the previous twenty-four hours, is—at Damietta, 18; at Mansourah, 45; at Samannoud, 22; at Shiben-el-Kum, 2; at Sherbin, 6; at Cairo, 12; at Menzaleh, 42; and at four other places, 24.

#### A FRENCH CHOLERA COMMISSION.

"WE learn," the *Gazette Hebdomadaire* states, "that at the request of M. Pasteur a scientific commission is about to be sent to Egypt in order to study the cholera. It will be composed of MM. Roux and Thuillier (two of the assistants in M. Pasteur's laboratory), Dr. Strauss (*agrégé-professeur* of the Paris Faculty of Medicine), and M. Nocard, Professor of the Veterinary School at Alfort. We can only applaud the zeal of these courageous *savants*, and hope that the disciples of the illustrious master who has realised so great a progress in the study of parasitic diseases may succeed in discovering and cultivating the cholera microbe, and in finding out the conditions under which the arrest of its development may be accomplished."

#### THE MEDICAL ACT AMENDMENT BILL.

At the beginning of the present week a deputation from the Medical Alliance Association had an interview with Mr. Mundella, M.P., at the Privy Council Office, with reference to the Medical Act Amendment Bill. The deputation was introduced by Mr. Hopwood, M.P.; and Dr. James Rogers, as spokesman, urged that practitioners throughout the country should have direct representation on all the divisional boards; that unregistered persons should not be admitted to practice; and that the restrictions and penalties for disobedience should be perpetuated, if not made more stringent; that there should be some common title for medical practitioners; and that power should be given to any person to prosecute offenders against the law. The Association has a very poor opinion of the Bill, and considers, indeed, that it is the worst of all the Medical Act Amendment Bills that have been manufactured. Mr. Mundella pointed out that this Bill was not introduced for the purpose of inflicting pains and penalties, but to raise the status of the profession, and to improve medical education throughout the country. He denied that the Bill would act to the detriment of the public by admitting incompetent practitioners, and, as a proof of that, called the attention of the deputation to the numerous petitions signed by influential medical men in favour of the Bill. He promised, however, that if the views of the Association were submitted to him in a written form, their objections should

receive the greatest consideration. A deputation from the Brussels Medical Graduates' Association also waited upon Mr. Mundella to bring before the notice of the Government their opinion that the effect of the Bill, as regarded qualifications, would be prejudicially to alter their *status quo*. Mr. Mundella did not think the Bill would so operate, and said that at any rate it was no object of the Government in any way to injure them. He promised to consider their representations with the view of amending the clauses they had referred to, should it seem necessary.

#### INTESTINAL ABSORPTION.

A NOVEL account of the process of intestinal absorption has just been offered by Dr. Zawarykin, a Russian observer—so novel indeed and curious, that it can hardly be seriously discussed. Everyone knows of the attempts that have been made to account for the entrance of fat into the lymphatics of the villus; and will remember the descriptions that have been given of the epithelial cells covering the mucous membrane, which are supposed to be specially provided with pores for absorbent purposes. Dr. Zawarykin's process of absorption, as evolved by him from the study of histological specimens from different periods of digestion, is much more beautiful, and indeed more simple, than this. He draws a picture of the leucocytes of the mucous membrane making their way "up" to the epithelium, pushing an arm-like process out between these cells, taking up a little load of fat, and then hastening "down" with it, to fall into the central lymphatic of the villus. If anything can add to this picturesque description, it is the account of the briskness, the activity, of the leucocytes on their outward and return journeys (*Centralblatt für die Med. Wiss.*, 1883, page 485). Protoplasm is becoming more than powerful—it is getting positively clever.

#### MR. JONATHAN HUTCHINSON, F.R.S.

ON Friday, last week, a meeting of past and present students of the London Hospital was held in the Anatomical Theatre of the Medical School, under the presidency of Mr. Walter Rivington, F.R.C.S., when it was resolved to raise some fitting "Hutchinson Testimonial"; its exact shape, however, being left for further consideration. Although but a few hours' notice of the meeting had been given, between sixty and seventy gentlemen responded to the summons, among them being several older and eminent past students of the School. A committee was elected to discuss the best method of carrying out the views of the meeting, and to receive subscriptions, which may be paid either to Dr. Andrew Clark, treasurer, or to any member of the committee, the secretaries of which are Dr. J. A. Williams and Mr. Charles H. Wade. It is understood that, whatever form the testimonial may take, it will be presented to Mr. Hutchinson at a dinner which will be given in his honour early in the ensuing winter session.

#### HONOURS TO THE PROFESSION IN IRELAND.

THE announcement that Her Majesty the Queen had been advised to confer the honour of knighthood on Mr. George H. Porter, Surgeon to Her Majesty in Ireland, has raised a storm of indignation in Dublin. All the daily papers have published strong leading articles, not so much against the proffered dignity to Mr. Porter as against the studied neglect of years to confer any hereditary honour upon either the medical or the surgical branch of the profession in Ireland. The profession have taken action in the matter, and a largely attended and highly representative deputation waited upon Mr. R. G. Hamilton, Under Secretary to the Lord Lieutenant, at Dublin Castle, on Tuesday last, to



request him to submit the following memorial to his Excellency without delay:—"To His Excellency Earl Spencer, K.G., Lord Lieutenant of Ireland.—Your Excellency,—We, the undersigned members of the medical profession in Ireland, desire respectfully to approach and confer with your Excellency on the subject of State recognition of our profession. We are induced to do this in consequence of the honour of knighthood having recently been offered by Her Majesty to one of the most eminent members of the surgical branch of the profession in Ireland. We feel assured that your Excellency and the Prime Minister, in advising Her Majesty to confer this mark of distinction, were actuated by the sincerest desire not only to honour the recipient, but also the profession to which he belongs. Under these circumstances we venture with all respect to remind your Excellency that until recently both branches of our profession—the medical and surgical—have received a higher form of recognition than that now proposed, and that the Medical School of Dublin, of which we are so justly proud, occupies as high a position as it ever did among the great centres of medical science in Europe. We fail, therefore, to see why Her Majesty's Government do not apparently consider our profession as worthy of State recognition in the present as it has been considered in the past; and we would also point out that the absence of that higher recognition places us in a position of inferiority as regards the profession in England, where, most deservedly, so many, both in medicine and surgery, have been awarded hereditary distinctions. We feel confident that nothing could be further from your Excellency's wishes than to see the status of a profession, in whose welfare you have ever evinced so much interest, placed in a lower position in Ireland than elsewhere. We venture to hope, therefore, that your Excellency and Her Majesty's other advisers will reconsider the subject of State honours to our profession, and grant an hereditary titular distinction to both branches of it, and thus place the profession in this respect on terms of equality with other parts of the United Kingdom.—Your Excellency's most obedient servants." Mr. Hamilton assured the deputation that the Viceroy would give the most careful consideration to their views.

#### THE LATE DR. FARR, F.R.S.

At the late meeting of the American Medical Association at Cleveland, the Section on State Medicine paid the following tribute to the memory of Dr. Farr, and referred it to the general meeting of the Association for its adoption, which was accorded. "Resolved—That the labours of the late Dr. William Farr, of England, in the organisation, classification, and compilation of vital statistics—labours begun in 1838, and afterwards perseveringly, wisely, and ably continued by him for nearly half a century—are recognised by the profession in the United States as an enduring monument to his ability and learning as a physician; as the real initiation and foundation of our own sanitary work; and as a perpetual blessing to present and future generations of our universal humanity, entitling his name and fame to stand with those of the great men whose genius and labours have resulted in beneficial revolutions of the medical, surgical, and sanitary activities of the civilised world."

#### SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

On Wednesday, July 11, the quarterly court of directors of this Society was held in the rooms of the Royal Medical and Chirurgical Society; Sir George Burrows, Bart., President, in the chair. Four new members were elected, the deaths of four were reported, and two other gentlemen had ceased to be members. A sum of £1207 was distributed among fifty-

seven widows and eight orphans. The death of one widow receiving a grant of £50 per annum was reported. There were no fresh applications for grants. The expenses of the quarter amounted to £71 13s., including an honorarium of twenty-five guineas to Mr. Blackett, in recognition of his great additional services rendered to the Society, of which he was re-elected Secretary.

#### SURGERY AND DIFFERENT RACES.

VON BRINTON has contributed to the *Wiener Med. Woch.* (No. 28) an article on the behaviour of different races towards surgical interference. The black races and Oriental nations bear operation the best; next comes the Anglo-Saxon family, and then the Latin race. The small mortality of the Chinese and Japanese after operations is well known. Pyæmia is of very rare occurrence in China. Only eight died out of 138 operated on for lithotomy. Similarly, the Japanese enjoy immunity from pyæmia, septicæmia, tetanus, and erysipelas. Of the Americans the negro stands surgical interference best. Even in overcrowded and ill-ventilated hospitals the negroes did better than the white-faces. Germans do well because of their phlegmatic constitution; and Irishmen also, but on account of their elasticity of spirits.

#### THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

At the annual general meeting of this Society on July 6, the following officers and Council were elected for the session 1883-84:—*President*: \*Jonathan Hutchinson, F.R.S. *Vice-Presidents*: \*William Bowman, F.R.S., C. E. Fitzgerald, M.D. (Dublin), Henry Power, Frederick Mason (Bath), Augustin Prichard (Clifton), \*J. C. Wordsworth. *Treasurer*: J. F. Streatfeild. *Secretaries*: John Abercrombie, M.D., \*W. A. Brailey, M.D. *Other Members of Council*: Edwyn Andrew, M.D. (Shrewsbury), \*George Cowell, \*George A. Critchett, Robt. Marcus Gunn, \*George Johnson, M.D., F.R.S., George Lawson, Stephen Mackenzie, M.D., Charles Macnamara, \*E. Nettleship, \*Priestley Smith (Birmingham), T. Shadford Walker (Liverpool), \*W. Spencer Watson. The gentlemen whose names are marked with an asterisk (\*) were not in the Council, or did not hold the same office during the preceding year. At the conclusion of the meeting the retiring President (Mr. Bowman) said, in response to a unanimous vote of thanks accorded him by acclamation on the motion of Mr. Carter, that his mind had been led back to the time when he had first begun to turn his attention to the subjects which now interested the Ophthalmological Society; the knowledge of the structures and of the functions of the eye was then imperfect and elementary, and the treatment most inadequate. The subject had then hardly ceased to be in the stage in which it was dealt with on the most general lines, or as a narrow specialty. Now, the condition of things was widely different; no department of medicine had known more splendid progress. It had been a great pleasure to him, through many past years, to follow the advance, and perhaps, in some small part, to promote it; particularly pleasant it had been, as their first President, to share with the members of their Society in the happily conceived idea of bringing together all or most of those engaged in ophthalmic practice, and the kindred side of the medical art, throughout the United Kingdom, its great colonies and dependencies. The result had, he thought, been very successful. For himself he could claim but a very small share in the work of the Society; the credit rather belonged to those who first initiated it, and they were particularly indebted to the two first Secretaries (Dr. Stephen Mackenzie and Mr. Nettleship) and Dr. Brailey, as well as to all those gentlemen, especially on the medical side, who had co-operated with them. It was one of the great advantages



of the Society that it had brought into union those who studied eye-disease as physicians, and those engaged in the special practice of ophthalmology. Such union explained the necessity for studying the eye always in the light of its relation to the whole organism, as well as in view of that wider relationship which it bears to all organic life upon the globe. He trusted that the Society would always continue, in the interest of medicine at large, to hold up ophthalmology as that department of the medical art in which exact knowledge was most attainable, and its application for the prevention and alleviation of disease best exemplified.

#### DEATH OF DR. A. PATRICK STEWART.

WE regret to have to record that Dr. Alexander Patrick Stewart died at his residence in Grosvenor-street on Tuesday last, the 17th inst., in the seventy-first year of his age. Dr. Stewart had long suffered from an affection of the heart, and from other pains and penalties inflicted by gout, but had been fairly well lately, so as to have been about till two days before his death, when he began to suffer severely from cardiac embarrassment, and though some degree of relief was obtained for a while, the improvement did not last. Few metropolitan physicians were better known or regarded with more kindly esteem and respect than was Dr. Patrick Stewart; but of his work and life we will now say no more than that his name will ever be linked with the differentiation of typhoid fever from typhus, he having contributed to the Parisian Medical Society, in 1840, a paper clearly setting forth the main points of distinction between the two fevers.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-seventh week of 1883, terminating July 4, was 1024 (519 males and 505 females), and of these there were from typhoid fever 64, small-pox 10, measles 33, scarlatina 4, pertussis 22, diphtheria and croup 26, dysentery 1, erysipelas 6, and puerperal infections 4. There were also 50 deaths from tubercular and acute meningitis, 169 from phthisis, 20 from acute bronchitis, 63 from pneumonia, 94 from infantile athrepsia (29 of the infants having been wholly or partially suckled), and 23 violent deaths (20 males and 3 females). The number of deaths continues to diminish, being now only 1042, in place of 1247 six weeks ago. The deaths from typhoid fever have, however, increased from 41 to 64, while the admissions have increased from 122 to 135. The same increase is observable in private practice, so that there is reason to fear that this disease, which had undergone its usual seasonary diminution in April, May, and June, is about to cause the increased mortality again which it has produced since 1880. Diphtheria and croup have notably decreased, and for this season of the year athrepsia is rare. The births for the week amounted to 1188, viz., 633 males (488 legitimate and 145 illegitimate) and 555 females (406 legitimate and 149 illegitimate): 92 infants were either born dead or died within twenty-four hours, viz., 55 males (38 legitimate and 17 illegitimate) and 37 females (25 legitimate and 12 illegitimate).

#### THE VARIETIES OF ANGINA PECTORIS.

UNDER the name angina pectoris many writers have grouped together symptoms differing from one another as widely in their causation as they do in gravity. It is of great importance to have clear views as to the different forms of angina pectoris. According to M. Henri Huchard (*Revue de Médecine*, Nos. 4 and 6), there is but one form of true angina pectoris, viz., that dependent upon cardiac ischæmia. This may be organic or functional. The former is produced by

narrowing or obliteration of the coronary arteries; and the author quotes thirty fatal cases of this disease in which one or other of these conditions was found on autopsy. This form of the disease is of grave prognosis, and, indeed, generally proves fatal, in this respect forming a striking contrast to all the other varieties. The existence of functional ischæmia of the heart is not, of course, susceptible of such definite proof as in the case of the organic variety, but there is ample evidence, both clinical and physiological, that tobacco is capable of inducing this state of the heart. The symptoms which it may give rise to are so well known that it is unnecessary for us to do more than enumerate them. They are—diminished frequency of the pulse, palpitations, irregularity of the heart's action, fainting, and a feeling of præcordial distress which may go on to a typical attack of angina pectoris. Spurious angina pectoris is also of two kinds, the one including all cases of nervous or arthritic origin, the other cases of gastric origin associated with dilatation of the heart. The points which distinguish these spurious cases from the true forms are—that the attacks do not supervene with certainty on any one given cause, such, for instance, as any form of violent exercise; that the attacks when they do occur are not so severe and do not last so long as in the true disease; and that in this last or gastric form the attacks are especially prone to come on after a meal. The spurious cases never prove fatal.

#### THE REGISTRAR-GENERAL FOR SCOTLAND ON THE MARCH QUARTER OF 1883.

IN his quarterly return for the first three months of the present year, the Registrar-General for Scotland calls attention to the circumstance that, owing to the increase of population between 1871 and 1881, it has been considered desirable to re-arrange the groups of districts. Several districts formerly included among the small towns are now placed among the large towns, while some large towns have been transferred to the group of principal towns; and this new arrangement, introduced into the report under notice, will be adhered to for the future. During this first quarter of the year the births in Scotland numbered 31,342, giving an annual birth-rate of 3.32 per cent.; as the average rate during the corresponding quarter of the ten preceding years was 3.443 per cent., it will be seen that the birth-rate was slightly under the average. For every 10,000 inhabitants there were registered 362 births in the principal towns, 358 in the large towns, 330 in the small towns, 293 in the mainland-rural, and 236 in the insular-rural districts. For every 10,000 of estimated population in the eight principal towns the birth-rate ranged from 413 in Greenock to 289 in Edinburgh. The proportion of male to female children was as 105.4 of the former to 100 of the latter. On turning to the records of the mortality of this quarter, it will be found that the number of deaths registered was 22,012, being at the annual rate of 233 deaths in every 10,000 inhabitants. This rate is higher than that recorded in the first quarter of any year since 1879. In England, during the same period, the death-rate was 223 for every 10,000 inhabitants; while in the principal towns of Scotland it was 276, in the large towns 230, in the small towns 222, in the mainland-rural districts 188, and in the insular-rural 187. As regards the eight principal towns, in Glasgow the death-rate was 320 per 10,000 of population; in Dundee, 306; in Greenock, 279; in Paisley, 268; in Perth, 246; in Leith, 242; in Aberdeen, 224; and in Edinburgh, 213. The mortality during the quarter attributed to the zymotic class of diseases is returned as 1619, or 18.7 per cent. of all deaths referred to specified causes; whooping-cough proved by far the most fatal, having claimed 232 victims in January, 217 in



February, and 218 in March. The computed increase of population during this March quarter is set down at 4424, which is arrived at as follows:—Deducting the number of deaths from the number of births, the natural increase is found to be 9330; but, according to the Government Emigration Officer's return, 4906 persons leaving the country for places out of Europe were Scotch, which reduces the figures to the number given. The chief characteristics of the weather in January were (but none of them attained a very marked degree) a high mean temperature; a dryness or small humidity in the air; extra depth of rain; extra force of wind, but an extra amount of southerly direction in it. February was warmer than the average by  $2.5^{\circ}$ , and though the rainfall was rather greater, also the mean pressure of the wind, yet the humidity of the air was less. The chief feature of March was its extraordinary coldness, and the manner of its interposition between a warm February and a very warm April, so far as that month had extended at the time of making out the report. The mean temperature was lower than in any of the Registrar-General's registered years. The month was also very dry, or with small humidity, small depth of snow or rainfall, and few wet days.

#### THE ACTION OF ALKALIES ON BILE.

SOME researches have been made recently by Lewaschew and Klikowitsch on the subject of the influence of alkaline agencies on the composition of the bile (*Centralblatt für Klin. Med.*, No. 27). The experiments were made on dogs with permanent fistulæ leading to the gall-bladder. No canula was used, however. For twenty-four hours previous to the beginning of the experiment neither food nor drink was administered. It was found that artificial and natural mineral waters had a similar action on the secretion of bile. For some time after the administration of the alkaline waters the quantity of bile flowing from the fistula was diminished. This effect was probably due to the increased flow of bile into the intestines. After this initial period the flow from the gall-bladder became more than the normal. The normal amount had been previously measured. Artificial waters exercised the same influence on the quality of the bile as the natural waters; but different results were obtained with waters of different degrees of concentration. Thus, carbonate of soda had a more rapid, powerful, and lasting influence on the composition of the bile than sulphate of sodium (Glauber's salts). Solutions of weak strength were more powerful than those of higher concentration. Hence, those mineral waters whose principal constituent was carbonate of sodium had the greatest influence on the composition of the bile, especially when the carbonate was *not* present in a high degree of concentration. The higher the temperature of the fluids ingested, the earlier and more marked were the effects.

WE have been requested to state that Dr. Stewart's funeral will be at Highgate Cemetery, on Monday, the 23rd inst., at four o'clock, starting from Grosvenor-street at three o'clock.

THE Treasurer of the British Medical Benevolent Fund acknowledges a donation of £50 from Sir William Jenner, Bart.

ON Tuesday evening next, at the ordinary meeting of the Sanitary Institute, to be held at 9, Conduit-street, W., a paper will be read by Professor W. H. Corfield, M.D., on "The Compulsory Notification of Infectious Diseases." The chair will be taken at a quarter to eight o'clock.

MR. JONATHAN HUTCHINSON has been appointed Emeritus Professor of Surgery in the London Hospital Medical School, and will give each winter and summer session a course of lectures on Clinical Surgery, consisting of six lectures each course.

#### MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, JULY 12.

*Contagious Diseases among Soldiers.*—The Marquis of Hartington, in reply to Captain Price, said that the prevalence of these diseases among the troops in the districts protected by the Contagious Diseases Acts had risen from 11.89 per 1000 in the four weeks prior to the abolition of compulsory examination of women, to 17.40 per 1000 in the four weeks since the abolition.

*The Cholera in Egypt.*—In reply to Viscount Folkestone, Lord Edward Fitzmaurice stated that Her Majesty's Government had made offers of assistance to the Egyptian Government with respect to the outbreak of cholera, but that the Egyptian Government had courteously intimated that they could manage matters very well themselves. But our Government intended, nevertheless, to renew their offer, and they had determined on sending out, without delay, a medical officer of the rank of surgeon-general, who would report on the character of the disease and on all material circumstances to the Local Government Board, and to the Parliamentary Committee on Cholera presided over by the President of the Board. He would also support Sir E. Malet as regards the proper measures to be taken in the present grave circumstances; and Sir E. Malet would be instructed to inform Cherif Pasha that the Surgeon-General's services would be at the disposal of the Egyptian Government.—In reply to Sir W. Barttelot, the Marquis of Hartington stated that the general officer commanding our troops in Egypt had telegraphed that there was not any sickness among the troops at Alexandria and Ramleh to cause alarm, but that much fever must be expected at Alexandria at this season; that no danger was to be apprehended from the state of the slaughter-houses, which are two miles to the leeward of Ramleh.

FRIDAY, JULY 13.

*The Cholera in Egypt.*—Lord E. Fitzmaurice stated that, acting on the advice of Sir Joseph Fayrer, Her Majesty's Government had been able to obtain the services of Surgeon-General William Hunter, Fellow of the Royal College of Physicians of London, and Honorary Surgeon to Her Majesty. He had been in the Indian Medical Service, Bombay Presidency, but had now retired. The Government had been fortunate in securing the advice and assistance of a medical officer of his knowledge and experience. The latest telegram from Alexandria, dated July 12, Lord E. Fitzmaurice said, stated that the number of deaths from cholera at Damietta was forty, at Mansourah seventy-three, at Samanoud eleven, and at Tantah three. There had been no account of any deaths at the other places. Two telegrams had been received from Sir E. Malet with regard to theories and reports about the state of things in Egypt. The first telegram, dated Cairo, July 11, gave the following information from our Consular agent at Damietta with reference to the alleged importation of cholera from Bombay by Muhammed Halifa:—Muhammed Halifa, for some years an inhabitant of Port Said, shipped as fireman on board the steamer *Timor*, made the voyage to Bombay, returning 18th ult., all on board in perfect health. Obtained discharge at Port Said, and commenced course of drunkenness and excess. This continued four days, when he was imprisoned by the Governor of Port Said, and finally exiled by that official on the 23rd ult.; arrived at Damietta on the 24th, when he recommenced the same course of excess, and was imprisoned on the 25th. He is now at liberty, and in perfect health. The cholera broke out at Damietta on the 22nd. With regard to the state of things at Mansourah, Sir E. Malet telegraphs:—"President of the Board of Health informs me that the Governor of that place has not resigned; that he declares there to be sufficient food, and that he had punished vendors who had taken advantage of the circumstances to sell food at advanced rates. Orders had been given by the Minister of the Interior and General Baker to



facilitate the entrance of doctors, provisions, and medicines to all places affected. The President adds, that when passenger traffic was interrupted with affected places a special service was organised by the railway administration for Government use.

*St. Pancras Workhouse.*—Mr. G. Russell, in reply to Mr. Hopwood, said: The Local Government Board have communicated with Dr. Dunlop, the Resident Medical Officer of the St. Pancras workhouse, and he acknowledges that at a recent inquest he did state that sometimes in winter the inmates of the workhouse numbered nearly 2000, that he had to see every person admitted into the receiving wards, and that he was medically responsible for about 1000 inmates, viz., those in the sick, infirm, insane, lying-in, and nursery wards, which wards, with the exception of the lying-in wards, he visited daily. He stated that he had vaccinated 1500 mothers at early periods after confinement; the usual time having been from the seventh to the fourteenth day after. As to the amount of Dr. Dunlop's work, the severe cases of sickness are taken into the infirmary at Highgate,—not into the workhouse. And although there may be 1000 inmates in the workhouse wards, only comparatively a small proportion of the number require to be seen by Dr. Dunlop each day. The duties of the Medical Officer are, no doubt, arduous; but, having regard to the number and character of the cases visited by him, the Board at present possess no evidence that those duties are not performed with sufficient care. As to the vaccination of women within a few hours after delivery, he had stated to the House a month ago that the Board would be glad to see the risk of vaccination dissociated, as far as possible, from the necessary risk of delivery.

MONDAY, JULY 16.

*The Indian Medical Service.*—Sir Trevor Lawrence asked the Under Secretary of State for India whether the result of the reorganisation of the Indian Medical Service was not to the medical officers senior to the Sanitary Commissioners a loss of at least two administrative appointments in Bengal alone; whether the block of promotion in the Bengal Medical Service was largely due to the deferred promotion of the senior officers, consequent on this reduction in the number of administrative appointments available; whether Section 56 of 21 and 22 Vic., cap. 106, did not secure to all branches of Her Majesty's Indian Army all advantages as to promotion and otherwise to which they were severally entitled at the time it was passed; and whether each presidency had its own separate medical list, wherein and whereby promotions were regulated?—Mr. J. K. Cross, in reply, said: Each presidency has its own separate medical list. The result of the reorganisation of the Service, to the medical officers senior to the Sanitary Commissioners, is an immediate loss of two administrative appointments in Bengal. But to the Bengal Department, taken as a whole, there is a gain of one administrative appointment, by the substitution for eleven deputy surgeons-general of nine deputy surgeons-general and three Sanitary Commissioners who rank as deputy surgeons-general after twenty-six years' service. The fact that, when the change was carried out, two of the Sanitary Commissioners were comparatively junior men has undoubtedly retarded the possible selection of a few officers senior to them. But there is no block of promotion. The Act of Parliament referred to did not provide against a change in the number of deputy surgeons-general; and no alteration has been made in the system of selection for that grade.

HOUSE OF LORDS—MONDAY, JULY 16.

*Overwork in Elementary Schools.*—Lord Stanley of Alderley called the attention of the House to the increase of insanity, and asked the Lord President if the Education Office had inquired into the effects of overwork in elementary schools, alleged to have occurred by various letters in the daily press. He asserted that the Lunacy Commissioners had now admitted that lunacy had increased. He said that this increase must be principally attributed to intemperance; but it was nothing as compared with the increase of brain disease which might shortly be expected, unless the warnings given by some of the highest authorities in the medical profession were to be disregarded. He quoted statements made by Dr. Hack Tuke, Dr. Andrew Clark, Dr. Crichton Browne, and other authorities, speaking of the in-

jurious effects of overwork on children; and spoke at length of the evil results in children and teachers of the increased severity of the requirements of the Revised Code, of overwork, and of overtime work in learning and in teaching.—Lord Carlingford said that, with regard to the alleged increase of insanity, he was unable to give any information, and must leave that question to be dealt with by the Home Office, for it was not part of the duty of the Education Department to deal with insanity. The Education Department were, however, making very careful inquiries into the truth of the statement made as to overwork in elementary schools. They had also consulted the most experienced of their inspectors on the subject; not only the most experienced, but those who had the greatest sympathy with children, and who would, therefore, not be likely to sanction any regulation from the Education Department which might result in causing overwork. The result had been, that while there were here and there cases of overwork on the part of children and pupil teachers who were anxious to distinguish themselves, upon the whole there was very little ground for the wide and highly coloured statements that had appeared in some of the newspapers. The Code could not, however, be the cause of the overwork, if there were any. The requirements of the Code had been relaxed and made less severe than formerly, and cases of overwork were due to overzeal on the part of the managers of schools. There was no reason why school managers should go beyond their powers. Any school might earn a very fair grant by confining itself to the ordinary subjects of instruction. It was a mistake to suppose that the Department intended to lay down any compulsory rules as to lessons to be learnt at home. They had not done anything to stimulate the practice of enforcing such lessons: in many cases they were, in the opinion of the inspectors and the best teachers, extremely useful and desirable; but they were by no means desirable in all cases. He assured his noble friend that the Department would impress on the managers of schools the absolute necessity of guarding against overwork on the part of children and of pupil teachers.—The Earl of Shaftesbury said that the increase of insanity in recent times had not exceeded in proportion the increase of the population. If the figures appeared larger than formerly, it was due to the numbers of all the chronic cases being gathered throughout the country into the asylums and the workhouses. The temperance movement was beginning to produce a great effect in lessening insanity. But if Lord Stanley meant to allude only to a special kind of insanity (that produced by the overstraining of the intellectual powers, especially among those just rising into adult life), he was right; but the number of persons by that means afflicted was not large enough to affect the statistical tables of insanity in general, and this matter was really serious. In 1871 there were, according to the census of that year, 32,901 males and 94,239 females employed in this country as teachers, schoolmasters, schoolmistresses, governesses, professors, and lecturers. In 1882, 183 persons belonging to the teaching class—38 males and 145 females—were admitted into the asylums of England and Wales. We had not as yet the aggregate number of that class existing in 1882, but, supposing it had risen to 200,000, the proportion of lunatics would be very large; and it was to be remembered that there were much larger numbers more or less affected, but falling short of insanity. This state of things was well worthy of consideration by Her Majesty's Government.

*ATROPIA IN EARACHE.*—The *Boston Journal of Chemistry* says that Dr. A. D. Williams orders a solution of atropia to be dropped into the painful ear, allowing it to remain there from ten to fifteen minutes. It is then made to run out by turning the head over, and wiped away with a dry rag. From three to five drops should be used of the solution, which may be warmed to prevent shock. Under three years old it should consist of one grain to the ounce, and over ten years of four grains to the ounce of water. In adults almost any strength may be used; and all ages will bear stronger solutions in the ear than in the eye. A few applications will usually stop the pain. In acute suppurative inflammation of the middle ear and acute inflammation of the meatus, atropia will only slightly palliate the suffering; but in the recurring nocturnal earache of children it is practically a specific.—*Phil. Med. Reporter*, May 5.



## FROM ABROAD.

## THE TREATMENT OF EPILEPSY.

PROF. HAMMOND, in a clinical lecture on epilepsy (*New York Medical Journal*, March 31), thus expresses himself on the treatment of this disease:—

“This child has never taken any medicine. It is not often that we meet with a case of epilepsy in which the bromides have not been tried, and tried very properly. There are a good many different kinds of treatment, which have been resorted to within recent years, that are of considerable importance. Whenever a patient has an aura, as this child has, you may do a great deal of good by giving something which will prevent the development of the paroxysm. It is a remarkable fact that epileptic fits may be kept up by the force of habit, even after the original cause has been removed. For instance, a child may swallow an apple-core, and that night have an epileptic fit. Now, although you may get rid of the core by purgatives, another fit may occur within a short time, merely from the force of habit, which has been so readily established. I know of no other disease that becomes habitual so readily as epilepsy. Hence the first thing to be done in all cases is to break up the habit. There are two important ways of doing this: First, when the patient feels an aura, if three or four drops of the nitrite of amyl be put upon a handkerchief and inhaled, the paroxysm will almost certainly be aborted. I have cured several cases of epilepsy by that method alone, without any internal remedy. The drug should be put to the mouth so that it may be thoroughly inhaled. When so inhaled it produces a sensation of fulness of the head, tingling of the surface of the body, and redness of the face. Nitro-glycerine or glonoin may be used for the same purpose; it takes a longer time to act, but its effect is more permanent. The strength required is one drop of glonoin to one hundred of alcohol, and it may be administered in pill form, the best preparation being that of Metcalf, of Boston. Two drops of the one-per-hundred solution may be given to an adult, or it may be given on a little sugar. It is also one of the remedies used for the permanent treatment of the disease. In epilepsy there is at first a general anæmia of the brain; and so long as this organ is in a hyperæmic condition it is impossible for a paroxysm to occur. It is on the principle of producing this hyperæmic condition that the nitrite of amyl and nitro-glycerine abort the epileptic attack. The same result may be obtained by putting an elastic band around the neck, preventing free venous return, and causing a fulness of the cerebral vessels. I know of two cases of epilepsy which were cured in this way. In another case the patient applied the band at the time she felt the aura, and it prevented the paroxysm. Afterwards she wore it constantly, and had but three attacks within four months, whereas previously she had been having as many attacks in the twenty-four hours.

“For a permanent cure of a case like the present one, I think it is always best to begin with the bromides in some form or other. There is no use in trying the old remedies—such as the nitrate of silver, or the salts of copper or zinc, etc. Some of the salts of zinc are, however, sometimes beneficial; but they are more efficient in conjunction with the bromides than when administered alone. But, in general, to use those old remedies will be to throw precious time away, for they will not reduce the frequency of the paroxysms oftener than in one case in one or two hundred, whereas the bromides will do so almost invariably, and if the case be not an old one they may effect a permanent cure. I usually begin treatment in an adult with a mixture consisting of four ounces of bromide of sodium to a pint of water, a teaspoonful (which contains fifteen grains of the bromide) to be taken three times daily. The efficacy of the solution will be increased by adding half an ounce of the iodide of potassium. It will take several days for the drug to produce any effect, for it acts slowly. When a physician tells me that he has induced sleep in a patient by a single ordinary dose, I do not believe it, for it requires more than one dose of fifteen grains several times daily, given from two to four days, to produce any decided effect. Perhaps a single dose of one hundred grains would put the patient to sleep, but it is not usually administered in such large quantities. A teaspoonful of the mixture should be given diluted with

water, for the effect of these salts is greatly increased when they are largely diluted with water. I increase the dose one-fourth every three months for a year, and continue it at that for another year. It is then reduced in the same manner, and during the fourth year the patient takes fifteen grains of the bromide three times a day. If the quantity is not increased during the first year, the attacks will probably recur, and you will then find it very difficult indeed to check them. I used to teach that it was not necessary to give the bromide longer than two years, but I found afterwards that in a few cases there was a relapse, and it is safer, therefore, to continue the treatment for four years. Indeed, if I were the subject of epilepsy myself, I should continue to take the bromide all my life, thus avoiding the probability of the recurrence of the paroxysms. If, after a time, the bromide does not produce as marked results as are desired, I would advise you to stop for a month or longer, until the system has had time to become perfectly free from the drug, and then begin the treatment anew. In the meantime, something should be given to quiet nervous irritability, such as cod-liver oil and tonics. The patient must, however, remember this fact, that unless a certain degree of bromism is produced the disease cannot be cured. The bromide treatment is not altogether unattended with danger. I have lost three cases from it. In one case the patient wrote to me, complaining of the ill effects of the drug. Patients, however, are likely to magnify their troubles, and I replied that she had better see her local physician, and follow his advice. She did so, but he did not like to take the responsibility of stopping the treatment. It was continued, and she died soon afterwards from bromism. In another case, that of a young lady, pneumonia supervened on bromide-poisoning, and caused death. I have observed that bromism predisposes to lung-trouble. In a third case, a young lady exposed herself, took pneumonia, and died. If, however, your cases are under your own immediate supervision, you can watch them, and when the effects of the drug are becoming too marked, decrease the dose, and it will not be likely to produce any serious results. It is necessary to affect the constitution pretty strongly, else a cure cannot be obtained. Weakness (short of ability to stand up), and an acne eruption on the face and chest, are not contra-indications to a continuance of treatment. But I have had to stop the bromide frequently on account of indolent ulcers which it had produced. These can usually be easily cured by galvanism. Another useful measure in the treatment of epilepsy is counter-irritation applied to the back of the neck by the platinum disc or other instrument heated to a white heat. It is necessary only just to touch the skin, and then remove the cautery immediately. The pain produced is so slight that the patient scarcely feels it. I have known the number of paroxysms to be reduced after a single application of the cautery.”

**INFANTILE LEUCORRHOEA.**—In a clinical lecture, Dr. Gaillard Thomas observes (*Phil. Med. Reporter*, March 31) that this should properly be called vaginitis, characterised as it is by the intense redness of the mucous membrane and the copious purulent discharge. It may be due to deficient hygienic precautions in ablution, to a deteriorated state of the child's health, or to the presence of ascarides in the rectum. In endeavouring to improve the child's health, vegetable tonics and the hypophosphates may be resorted to, but most reliance is to be placed in nutritious diet. The vagina should be well washed out with a syringe provided with a small nozzle, which should be well oiled; and in some cases the thorough washing out of the vagina, with the child on its back, will effect a cure; but when the affection has lasted some time, one of the best applications is black-wash in the proportion of one ounce to a pint of water, used twice a day, the vagina being injected with warm water before using the wash. This never fails, and prevents the necessity of resorting to astringents and nitrate of silver, which may do harm. A much longer time is often occupied in treating these cases than is necessary, by omitting to show the mother or nurse how to introduce the nozzle of the syringe properly. Unless taught, they never carry this higher than the eighth of an inch, and the injections fail to reach the diseased parts. We should watch the mother using the syringe, and see that the upper part of the vagina is reached.



## MEMORANDUM ON THE

## CLINICAL CHARACTERS OF "WOOLSORTERS' DISEASE" (ANTHRAX).

THE subjoined memorandum has been prepared for use in an inquiry now being conducted by Mr. Spear on behalf of the Local Government Board, into the occurrence of anthrax amongst men employed in hide warehouses, tanneries, etc. Mr. Spear wishes it to be known that gentlemen who have had opportunities of observing the disease will be conferring a useful service by communicating with the inspector.

*The "Internal Form" of the Infection, or Anthrax Fever.*—Premonitory symptoms (of variable duration): Chilliness, aching or stiffness of limbs, and mental depression; restlessness, sense of constriction of chest, and oppression of breathing; headache, dizziness, nausea, or, less frequently, vomiting. Stage of full development: Notwithstanding the indefinite premonitory symptoms, the stage of full development is generally somewhat sudden and unexpected in its onset, so as to cause much alarm. The prostration and restlessness become extreme; there are precordial anxiety and dyspnoea; blueness of the face and extremities (cyanosis) is conspicuous; and the patient may die within twenty-four or thirty-six hours with all the appearances of collapse or of asphyxia. A fatal termination is, however, more often postponed until from two to five days after the commencement of this stage. Other nervous phenomena—muscular paralyses, convulsions, or tetanic spasms—are then apt to develop themselves; and evidences of various acute local congestions (especially of the lungs, less frequently of the gastro-intestinal tract) are rarely wanting. Delirium is often absent; and the temperature is irregular. Exacerbations, alternating with more or less complete remissions, of the more urgent symptoms constitute usually a striking feature of the disease. Recovery is not so rare as has been supposed, even in fully developed attacks; but death may occur from a relapse, or from secondary septic processes. The body after death usually undergoes rapid decomposition, with blue discolouration and swelling, especially about the neck.

[Before the disease was identified amongst the woolsorters, deaths were usually referred to one of the more prominent local symptoms of anthrax, and were registered as from "pneumonia," "enteritis," "peritonitis," "meningitis."]

*The "External Form" of the Infection, or Malignant Pustule.*—The malignant pustule attacks almost always parts of the body habitually uncovered, and most frequently the face. It commences as a small papule, which quickly develops into a vesicle, and this, being broken, pours out a little watery exudation. The base of the vesicle, and the surface immediately adjacent, dies; so that in about three days after its appearance the lesion consists of a small central black eschar, with a raised border of inflamed and tumid skin upon which vesicles are apt to be developed; a crop of secondary vesicles surrounding thus the central eschar like a wreath. The neighbouring lymphatics and glands are speedily implicated; and the patient may soon lapse into the condition, described above, of constitutional infection. The pustule does not apparently always present this typical appearance; when occurring upon the hands such appearance is uncommon. It has then no central black eschar, no raised vesiculated border. It is described as "a small, slightly inflamed tumour, exuding only serosity; giving rise to comparatively little pain or even increased sensibility, but showing a tendency to set up a diffuse cellulitis." Constitutional infection may follow.

**DEAD-DRUNK.**—This is defined by the *savants* of the Paris Biological Society to be a condition in which there is a proportion of one part of alcohol to 195 parts of blood in the circulation. Should the proportion ever come to one part of alcohol to 100 of blood, death would ensue. This might happen, and in fact has happened repeatedly, when a very large quantity of alcoholic liquor is swallowed at one time and quickly. In ordinary drinking, consciousness is lost, and with it the power to drink more, before the proportion of alcohol in the blood becomes fatal.—*Phil. Med. Reporter*, No. 13.

## ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE following are the arrangements for the Fifty-first Annual Meeting of the British Medical Association, to be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31, August 1, 2, and 3, 1883:—

*President*, WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

*President-elect*, A. T. H. WATERS, M.D., F.R.C.P., Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

AN ADDRESS in SURGERY will be delivered by REGINALD HARRISON, F.R.C.S., Surgeon to the Royal Infirmary, Liverpool.

AN ADDRESS in PATHOLOGY will be delivered by C. CREIGHTON, M.D., formerly Demonstrator of Anatomy, University of Cambridge.

The business of the Annual Meeting will be conducted in Ten Sections, viz.:—

**SECTION A. MEDICINE.**—*President*, John Cameron, M.D. *Vice-Presidents*, Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D. *Secretaries*, Richard Caton, M.D., 18A, Abercromby-square, Liverpool; Byrom Bramwell, M.D., 23, Drumsheugh-gardens, Edinburgh.

**SECTION B. SURGERY.**—*President*, Edward R. Bickersteth, F.R.C.S. *Vice-Presidents*, W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries*, Rushton Parker, M.B., F.R.C.S., 61, Rodney-street, Liverpool; Edmund Owen, M.B., F.R.C.S., 49, Seymour-street, Portman-square, W.

**SECTION C. OBSTETRIC MEDICINE.**—*President*, W. M. Graily Hewitt, M.D. *Vice-Presidents*, John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries*, John E. Burton, L.R.C.P., 64, Rodney-street, Liverpool; W. C. Grigg, M.D., 6, Curzon-street, Mayfair, W.

**SECTION D. PUBLIC MEDICINE.**—*President*, T. P. Teale, M.B., F.R.C.S. *Vice-Presidents*, William Carter, M.D.; W. Honner Fitz-Patrick, M.D. *Secretaries*, F. Pollard, M.D., 52, Rodney-street, Liverpool; George Goldie, M.D., 123, Hyde Park-road, Leeds.

**SECTION E. ANATOMY AND PHYSIOLOGY.**—*President*, Professor E. A. Schäfer, F.R.S. *Vice-Presidents*, William Stirling, M.D.; Richard Norris, M.D. *Secretaries*, James Barr, M.D., 1, St. Domingo-grove, Everton, Liverpool; A. W. Mayo Robson, F.R.C.S., Hillary-place, Leeds.

**SECTION F. PATHOLOGY.**—*President*, T. H. Green, M.D. *Vice-Presidents*, E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries*, Frank Thomas Paul, F.R.C.S., 44, Rodney-street, Liverpool; James F. Goodhart, M.D., 27, Weymouth-street, W.

**SECTION G. PSYCHOLOGY.**—*President*, T. L. Rogers, M.D. *Vice-Presidents*, G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries*, G. Shuttleworth, M.D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M.D., Grove Hall Asylum, Bow, E.

**SECTION H. OPHTHALMOLOGY.**—*President*, Thos. Shadford Walker, M.R.C.S. *Vice-Presidents*, E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries*, E. A. Browne, F.R.C.S., 86, Bedford-street, Liverpool; C. E. Glascott, M.D., 23, St. John-street, Manchester.

**SECTION I. DISEASES OF CHILDREN.**—*President*, Samuel Jones Gee, M.D. *Vice-Presidents*, M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries*, H. G. Rawdon, M.D., 42, Rodney-street, Liverpool; H. Ashby, M.D., 13, St. John-street, Manchester.

**SECTION J. OTOTOLOGY.**—*President*, G. P. Field, M.R.C.S. *Vice-Presidents*, Edward Woakes, M.D.; C. Warden, M.D. *Secretaries*, Thos. Barr, M.D., 10, Albany-place, Sauchiehall-street, Glasgow; R. Williams, L.R.C.P., 82, Rodney-street, Liverpool.

*Honorary Local Secretary*, Alexander Davidson, M.D., 2, Gambier-terrace, Liverpool.

*Honorary Treasurer*, W. Mitchell Banks, F.R.C.S., 28, Rodney-street, Liverpool.



## TUESDAY, JULY 31, 1883.

- 10.30 a.m.—Church Service at Pro-Cathedral: Sermon by Bishop of Liverpool.  
 12.0.—Meeting of Committee of Council.  
 12.30 p.m.—Meeting of the Council, 1882-83.  
 3 p.m.—First General Meeting: Report of Council and other business. Adjourn at 5 p.m.  
 8.15 p.m.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock.

## WEDNESDAY, AUGUST 1, 1883.

- 9.30 a.m.—Meeting of Council, 1883-84.  
 11 a.m.—Second General Meeting: Address in Surgery.  
 1.30 to 5 p.m.—Sectional Meetings.  
 8.30 p.m.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading Room, and the Free Library, by the President and Local Committee. (To this ladies will be invited.)

## THURSDAY, AUGUST 2, 1883.

- 9 a.m.—Meeting of Committee of Council.  
 10 a.m.—Third General Meeting: Sectional Meetings. Adjourn at 1 p.m.  
 2 to 5 p.m.—Sectional Meetings.  
 6.30 p.m.—Public Dinner in the Philharmonic Hall.

## FRIDAY, AUGUST 3, 1883.

- 10 a.m.—Fourth General Meeting: Address in Pathology. Sectional Meetings.  
 2 p.m.—Concluding General Meeting.  
 8.30 p.m.—*Soirée* by the Mayor of Liverpool, at the Town Hall. (To this ladies will be invited.)

## SATURDAY, AUGUST 4, 1883.

Excursions.

## ANNUAL MUSEUM.

The Museum will be in the same building as the reception-room, the general meetings, and the sectional meetings. In fact, all the business of the annual meeting will be carried on in one building, viz.—the College, Shaw-street, Liverpool. The room which is specially devoted to Museum purposes is a gallery, 300 feet in length, in the upper storey, lighted from the roof. On the same floor are several additional rooms, so that the accommodation for exhibiting drugs and instruments is ample. On the second floor, adjoining the room where the Pathological Section meets, are two class-rooms, one of which will be used for the exhibition of pathological drawings and specimens, the latter for microscopes. A large hall on the ground floor has been set apart for sanitary appliances, among which it is expected there will be a good exhibition of ambulances.

The Museum will comprise—1. Latest inventions in medical and surgical instruments, and appliances of all kinds, including No. 4. 2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids. 3. Drawings, diagrams, or models, or apparatus connected with sanitary appliances. 4. Microscopes, thermometers, and other instruments of investigation. 5. Pathological specimens, etc.

## DINNER.

The annual dinner will be held as a banquet in the Philharmonic Hall on Thursday, August 2, at 6.30 p.m. The number of tickets is limited to 500, and none will be sold after Wednesday night, August 1. Application must be sent to Dr. Dickinson, 162, Bedford-street, Liverpool (secretary to Dinner Committee), accompanied by a remittance of 21s.

The following papers, etc., have been promised in the various Sections.

## SECTION A.—MEDICINE.

1. A discussion on Aphasia will be opened by Professor Gairdner, of Glasgow. Dr. Hughlings-Jackson, Dr. Broadbent, Dr. Ferrier, Dr. Antoine Cros (Paris), Dr. Thudichum, Dr. W. W. Ireland, Dr. Drummond, Dr. Ross, Dr. G. A. Woods, Dr. A. Cameron, and Dr. Wahltuch, are expected to take part in it.

2. A discussion on the Causes and Consequences of Abnormal Tension in the Arteries will be opened by Dr. Broadbent. Dr. Milner Fothergill, Dr. B. Foster, Dr. W. F. Wade, Dr. Mahomed, Dr. Glynn, Dr. Eddison, and Dr. Carter, are expected to take part.

3. A discussion on the Nature of Purpura will be opened by Dr. Stephen Mackenzie. Dr. Finny (Dublin), Dr. B. Foster, Dr. McCall Anderson, Dr. Stainthorpe, Dr. W. Russell, and Mr. Cauty, will take part.

The following papers are also promised:—

ATKINS, R., M.D. Hysterical Hemianesthesia.  
 BENNETT, A. Hughes, M.D. 1. Spastic Paralysis. 2. Hysterical Malingering.  
 BRAMWELL, Byrom, M.D. Note on the Mechanism of Cheyne-Stokes Respiration.

BRUNTON, T. Lauder, M.D., F.R.S. Headache.

CARTER, William, M.D.

CATON, Richard, M.D. On Brain Tumours.

CAUTY, H. E., Esq. On Roseola.

CROS, A., M.D. (Paris). 1. Sur la Pleximétrie. 2. La Théorie Physiologique de l'Hallucination.

DAVIDSON, Alexander, M.D.

DRUMMOND, David, M.D. 1. Perforating Tumour of the Dura Mater. 2. An Unusual Case of Locomotor Ataxy.

DRYSDALE, C.R., M.D. Recent Innovations in the Doctrine of Phthisis Pulmonalis.

EDDISON, J. E., M.D. 1. On the Cause of Cardiac Murmurs in Anæmia. 2. A Series of Forty Consecutive Cases of Empyema treated by the Physicians of the Leeds Infirmary (Drs. Allbutt, Eddison, and Churton).

FINNY, J. Magee, M.D. A Peculiar and hitherto Undescribed Condition of the Hairs of the Human Axilla.

FLINT, Austin, M.D. (New York). Early Tapping in Cases of Ascites.

GABBETT, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.

GLYNN, T. R., M.D.

GREVES, E. H., M.B. Notes on Cases illustrating Nerve-Diseases.

HASSALL, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs. 2. On the Principles of the Construction of Inhalation Chambers for Diseases of the Throat and Lungs.

LEECH, D. J., M.D. Duration of Action of Medicines.

LITTLE, J. F., Esq. Rheumatic Arthritis or Neurotic Arthritis.

MACKENZIE, J. A., M.D. Rupture of the Heart.

MOORE, W. W., M.D. Source of Heat in Fever.

MORRIS, Malcolm, Esq. The Use of Antimony in certain Skin Diseases.

MYRTLE, A. S., M.D. Sweating to Death.

OLIVER, George, M.D. Bedside Urinary Testing.

OXLEY, M. G. B., M.D. The Position of Syphilis as regards Classification and Treatment in this Country.

RIDGE, J. J., M.D. The Use of Non-Alcoholic Tinctures as Remedies.

ROBERTSON, R., M.D. Modern Uses of Blood-letting.

ROSS, James, M.D. 1. Rupture of the Brachial Plexus. 2. On Early Posterior Sclerosis.

RUSSELL, W., M.D. Three Fatal Cases of Purpura Hæmorrhagica.

SANSON, A. E., M.D. Note on Percussion as a means of Diagnosis.

SMITH, Solomon C., M.D. Antiseptic Inhalations.

STRANGE, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.

THOMAS, W. R., M.D. On the Varieties of Phthisis, and the Curability of some in certain Stages.

THOMSON, G., M.D. Rupture of the Brachial Plexus.

THUDICHUM, J. L. W., M.D. On Hay-Fever or Hay-Asthma, and its frequent Connexion with Structural Disease of the Nasal Cavity.

WAHLTUCH, A., M.D. On Electro-therapeutics.

WISE, Alfred, M.D. Climatological Studies at High Altitudes.

WOODS, G. A., Esq. Cerebellar Tumour.

Dr. Byrom Bramwell will give a demonstration on the Microscopic Pathology of the Spinal Cord.

## SECTION B.—SURGERY.

1. Mr. Clement Lucas will open a discussion on Surgical Diseases of the Kidney, and the Operations for their Relief, in which Dr. G. Elder and Mr. Bennett May will take part.

2. A discussion on the Treatment of Intestinal Obstruction by or without Operative Interference will take place, in which Sir William Mac Cormac, Mr. Bellamy, Dr. Norman Kerr, and others, will take part.

The following papers have been promised:—

ATKINSON, E., Esq. Drainage of Joints.

BAKER, Morratt, Esq. Removal of the Tongue by Median Division.

BARTLEET, T. H., Esq. Roux's Amputation at the Ankle: its Superiority to Syme's.

BERNARD, Armand, Esq. Observations on Primary Venereal Sores.

BERRY, William, Esq. Strangulated Hernia and its Complications.

BROWNE, H. Langley, Esq. Treatment of Enlarged Prostate by Continuous Elastic Pressure.

BROWNE, J. W., M.D. Cases of Hernia.

COUSINS, J. Ward, M.D. 1. Photograph of a Dorsal Tumour which was removed to relieve Pulmonary and Cardiac Distress. 2. Explanatory Remarks on a New Needle for Closing Surgical Wounds.

CROSS, F. Richardson, Esq. The Treatment of Arthritis by Incision.

DRYSDALE, C. R., M.D. Recent Experiments on the Treatment of Syphilis.

FAGAN, John, L.K.Q.C.P. The Nature, Diagnosis, and Treatment of Hæmarthrosis of the Knee-Joint.

HARDIE, James, Esq. Amputation by Oblique Circular Incision.

HEATH, Christopher, Esq. The Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures.

JESSOP, T. R., Esq. Some Results derived from Experience in Colotomy.

JONES, Thomas, Esq. Cases of Resection of the Ankle-Joint for Disease and Injury.

KEETLEY, C. B., Esq. An Analysis of Eight Cases of Osteotomy of the Hip.

LE PAGE, J. F., Esq. The Evacuation of Deep Abscesses; with Exhibition of Deep Abscess Evacuator.

LOWNDES, F. W., Esq. Venereal and Sexual Hypochondriasis.

MARCH, H. C., M.D. A Case of Resection of the Ankle-Joint by an Artificial Pott's Operation.

MORGAN, J. H., Esq. The Operative Proceedings in Cases of Intestinal Obstruction.

MORRIS, Malcolm, Esq. The Comparative Advantages of Scarification and Scraping in the Treatment of Lupus Vulgaris.

NORTON, A. T., Esq. A Case of Excision of the Superior Maxilla for Melanotic Sarcoma of the Antrum.

OWEN, Edmund, Esq. The Treatment of Large Nævi.

PEMBERTON, Oliver, Esq. Gastro-Enterotomy.

RABAGLIATI, A., M.D. Cases of Osteotomy.

ROTH, Bernard, Esq. The Treatment of Non-Spasmodic Torticollis.

SMITH, E. Noble, Esq. The Treatment of Lateral Curvature of the Spine.



SOUTHAM, F. A., Esq. A Case of Femoral Aneurysm, treated by Injection of Fibrin Ferment, and subsequently by Ligature of the External Iliac Artery.

STOKES, William, Esq. Excision of the Shoulder-Joint.

STOWERS, J. H., M.D. 1. The Nature and Treatment of Paget's Disease of the Nipple (with Microscopic Specimens). 2. The Treatment of Vascular Hypertrophy of the Nose.

THOMAS, William, M.B. 1. On the Accurate Measurement and Comparison of the Lower Limbs. 2. The Application of India-rubber Bands in the Treatment of Talipes.

THOMPSON, James, M.D. Artificial Limbs.

WALTER, Wm., M.D. A Case of Nephrectomy for Cystic Tumour of a Floating Kidney.

WARDEN, Charles, M.D. On Osteotomy in Genua Vara and Valga.

WARREN, J. W., M.D. 1. Cure of Hernia by Subcutaneous Injection. 2. The Use of the Aspirating Needle in Strangulated Hernia and Obstruction of the Bowels.

WHITEHEAD, Walter, Esq. 1. A Further Series of Twenty-five Cases of Excision of the Tongue with Scissors. 2. The Surgical Treatment of Hemorrhoids.

Patients for exhibition will attend from 1.30 to 2.30 p.m. on Wednesday and Thursday, August 1 and 2, in a room adjacent to that of the Section.

Mr. John Croft will give a demonstration of the application of Plaster-of-Paris Splints for the Treatment of Fractures.

#### SECTION C.—OBSTETRIC MEDICINE.

Special discussions are expected to take place in this Section on the following subjects:—

1. Total or Partial Extirpation of the Uterus for Malignant Disease. Introduced by papers by Professor Schroeder (Berlin) and Dr. Wallace.

2. On Operative Treatment of Uterine Fibromata. Introduced by papers by Dr. Keith, Mr. Knowsley Thornton, and Mr. Lawson Tait. Dr. Wallace has promised to take part.

3. On Metria (so-called Puerperal Fever). Introduced by papers by Dr. Atthill and Dr. Thorburn. Drs. Grigg, T. More Madden, Alderson, and Fancourt Barnes, and Messrs. Donovan and Burton, have promised to take part.

4. Porro's Operation. Introduced by a paper by Dr. Clement Godson.

The following papers are promised:—

ALDERSON, F. H., M.D. A Case of Extra-Uterine Pregnancy.

ALEXANDER, William, M.D. On Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement.

BARNES, Fancourt, M.D.

BURTON, J. E., Esq. A Plea for the more Persevering Treatment of Uterine Cancer in Cases in which Operation by Removal is Impracticable.

CROOM, J. Halliday, M.D. 1. Basilysis. 2. On some Relations of the Bladder and Uterus during Labour.

DOLAN, T. M., Esq. Defective Lactation in Modern Times: its Causes, and how far it may be Influenced by Drugs.

DUKE, Alexander, M.D. On the Use of Additional Traction in Difficult Cases as an Alternative to Craniotomy.

EDIS, Arthur W., M.D. The Treatment of Chronic Metritis associated with Retroflexion.

LEDIARD, A. H., M.D. Alexander's Operation on the Round Ligaments; with Cases and Remarks.

LE PAGE, John F., Esq. On Axis-Traction in Delivery with Obstetric Forceps. Mr. Le Page will also exhibit Le Page's Axis-Traction Forceps.

MCDONALD, A. Drummond, M.B. Position in Labour.

MADDEN, T. More, M.D. Further Observations on certain Mental and Nervous Disorders peculiar to Women.

MEADOWS, A., M.D. On the Diagnosis of the various Forms of Uterine Fibromata.

MURPHY, James, M.D. Short Notes of Fifteen Cases of Placenta Prævia, with Remarks on its Treatment.

ROBERTS, D. Lloyd, M.D. Inversion of the Uterus.

SMITH, Heywood, M.D. On a Case of Porro's Operation.

SPANTON, W. D., Esq. A Case of Extra-Uterine Fœtation.

TAIT, Lawson, Esq. Are Diseases of the Ovary (specially Cystoma) on the Increase?

WALTER, William, M.D. A Case of Hysterectomy for Uterine Fibromata.

WILLIAMS, A. Wynn, M.D. 1. On Displacements of the Uterus and their Treatment. 2. On Cancer of the Neck of the Uterus and its Treatment.

#### SECTION D.—PUBLIC MEDICINE.

Four topics have been selected for discussion in this Section—

1. Directions in which Public Health Law might be advantageously Amended or Extended. Mr. Charles Wills will read a paper on this subject. Mr. Ernest Hart will read one on the Advisability of an Extension of the Law for the Regulation and Registration of Plumbing in Houses. Dr. William Carter will open a discussion on these papers.

2. Quarantine. Dr. Imlach will read a paper on Quarantine; and Dr. Stocker, lately Government Emigration Inspector at Queenstown, will read one on a cognate subject.

3. Disposal of Town-Refuse. Dr. Goldie and Dr. E. Whittle will read papers on this subject.

4. Etiology of Diphtheria and Autumnal Diarrhoea. Drs.

Alfred Carpenter, H. J. Alford, and E. F. Willoughby, will read papers on Diphtheria; and Mr. M. D. Makuna one on Autumnal Diarrhoea.

Captain Douglas Galton, C.B., F.R.S., has promised to read a paper on Hospital Construction.

The following papers are promised:—

DRUMMOND, Edward, M.D. On the Climate of Rome.

DRYSDALE, C. R., M.D. The Mortality of the Rich and the Poor.

HILL, J. Higham, M.D. Suggestions for the Better Police Treatment of Persons found Insensible in the Streets, and supposed to be under the Influence of Alcohol.

JAMES, J. Brindley, Esq. On Cremation.

KERR, Norman, M.D. The Present Position of the Habitual Drunkards Movement.

LOWNDES, F. W., Esq. How to Make our own Houses Sanitary; with Personal Experiences.

MAKUNA, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health attributed to Vaccination.

MARTIN, Johnson, Esq. On the Injury done to the Health of the Young by the Present System of Education.

MULLICAN, K. W., Esq. Evolution in Disease.

SHEARER, George, M.D. On the Opium-Habit.

#### SECTION E.—ANATOMY AND PHYSIOLOGY.

The following papers have been promised:—

ANDERSON, Edward C., M.D. Koumiss: its Modes of Preparation, Varieties, Physiological Uses, etc.

ANDERSON, R. J., M.D. Human Ribs.

ARCHER, R. S., M.B. Note on Congenital Aortic Bands.

BARR, James, M.D. The Causes and Mechanism of the Cardiac Impulse.

HADDEN, W. B., M.D. Westphal's Phenomenon, or the so-called Paradoxical Contraction of Muscles.

THUDICHUM, J. L. W., M.D. On the Chemical Constitution of the Brain.

WOODS, G. A., Esq. The Anatomy and Physiology of the Sixth Nerve.

Mr. Lennox Browne will exhibit on the magic-lantern screen, by means of oxyhydrogen light, a series of Photographs of the Larynx and Soft Palate in the production of various Musical Tones.

Afterwards, Mr. Emil Behnke, from whom the pictures have been taken, will exhibit his Larynx to the members present, so as to demonstrate practically the physiological facts illustrated by the photographs.

Mr. C. B. Lockwood will show an anatomical specimen illustrating the use of the Fossa at the Lower End of the Fibula.

Dr. E. H. Jacob will show (1) Photographs of Chick Embryos; (2) a Portable Polygraph.

Dr. Francis Warner will give a demonstration of an Apparatus for obtaining Graphic Records of the Movements of Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. John Harker will show a sketch of Abnormal Hands and Feet in the case of an Infant.

Mr. Sibley Hicks will exhibit a series of Embryos to illustrate the Development of the Chick.

#### SECTION F.—PATHOLOGY.

The following discussions will take place:—

1. On Micro-organisms in Disease. To be opened by Dr. Dreschfeld. Dr. Shingleton Smith will take part in the discussion.

2. On the Micro-organism of Typhus. To be opened by Drs. Mott and Blore. Drs. Davidson and Barrow will take part.

3. On the Pathology of Dropsy. To be opened by Dr. Lauder Brunton. Drs. Saundby and Churton will take part.

4. On Chronic Inflammations of Bone. To be opened by Mr. Charters J. Symonds.

5. On Primary Growths of the Urinary Tract. To be opened by Mr. Frank T. Paul. Mr. Roger Williams will take part in the discussion.

Cirrhosis and allied conditions of the Liver will be brought forward, should time allow.

The following papers have been promised:—

HADDEN, W. B., M.D. On Lardaceous Disease of the Suprarenal Capsule.

LE PAGE, John F., Esq. On Neuropathic Plica.

MANSSELL-MOULLIN, C., M.B. On some Forms of Osteitis in Hereditary Syphilis.

ROECKEL, W. J., M.B. The Pathology of Internal Hemorrhoids.

SILCOCK, A. Q., M.D. Some points connected with the Repair of Fractures.

SMITH, R. Shingleton, M.D. 1. Tubercular Bacilli in the Urine. 2. Cirrhosis of Liver simulating Acute Yellow Atrophy.

STOWERS, J. Herbert, M.D. 1. Paget's Disease of the Nipple. 2. Various Affections of the Skin.

WINDLE, B. C. A., M.B., and BARLING, H. G., M.B. The Pathology and Relations of Lupus.

It is desired to illustrate in as complete a manner as



possible, by means of preparations and microscopical specimens, the Primary Growths of the Urinary Tract, especially of the Kidney, Bladder, and Prostate. The object of this investigation is to collect all the information that is to be obtained in this country, with the view of deciding what are the primary growths that have been met with in this region. The specimens lent will be arranged in the Museum, and a report of the investigation will be brought forward in the Pathological Section by Mr. Paul. The Sub-committee will be very glad to receive (1) recent specimens; (2) mounted specimens of rare growths; (3) microscopical sections (these are specially requested). The specimens and sections will be returned to their owners after the meeting.

#### SECTION G.—PSYCHOLOGY.

In this Section, the following special subjects have been selected for discussion:—

1. The Employment of the Insane. Introduced by Dr. Yellowlees. Dr. David Bower, Dr. William W. Ireland, Dr. John A. Wallis, and others, are expected to take part in this discussion.

2. Bone-Degeneration in the Insane. Introduced by Dr. Wigglesworth. Dr. William W. Ireland and others are expected to take part.

3. Cerebral Localisation in relation to Psychological Medicine. Introduced by Mr. W. Bevan Lewis. Dr. James Ross, Dr. David Ferrier, Dr. W. W. Ireland, Dr. Fletcher Beach, Dr. Alexander Robertson, and others, are expected to take part.

4. General Paralysis. Introduced (if time permit) by Dr. W. J. Mickle. Several members are expected to take part.

The following papers are also promised:—

BAKER, John Henry, Esq., and MICKLE, W. J., M.D. Some Acts during Temporary Epileptic Mental Disorder.

HICKSON, Albert Thomas, M.D. Locomotor Ataxy and General Paralysis.

HUGGARD, William Richard, M.D. Definitions of Insanity.

MERCIER, Charles A., M.B. An Epidemic of Delirium.

MICKLE, William Julius, M.D. Visceral and other Syphilitic Lesions in Insane Patients, without Cerebral Syphilitic Lesions.

SANKEY, William H. O., M.D. What Phenomena are included in the name of General Paralysis or General Paresis?

SAVAGE, George H., M.D. Some Cases of General Paralysis with Lateral Sclerosis of the Cord.

SHUTTLEWORTH, George E., M.D. Is Legal Responsibility acquired by Educated Imbeciles?

WIGGLESWORTH, Joseph, M.D. The Pathology of Mania.

Several members will also exhibit Microscopical Sections of the Brain and Spinal Cord.

#### SECTION H.—OPHTHALMOLOGY.

Three subjects have been selected for discussion in this Section—

1. On Tests for Colour-Sense and for Acuteness of Vision, with special reference to Schools and Sailors. Opened by Dr. W. A. Brailey, followed by Dr. Snellen (Utrecht). Messrs. Nettleship, Fitzgerald, and Higgins have promised to take part.

2. On the Use of the Magnet in Ophthalmic Surgery. Opened by Mr. Simeon Snell, followed by Dr. W. A. McKeown.

3. On the various methods of Treatment for Sloughing Ulcer of the Cornea, with especial reference to Incision and Scraping. Opened by Mr. T. Pridgin Teale, followed by Dr. Little.

The following papers have been promised:—

ABBOTT, George, Esq. Obstruction of the Nasal Duct, and its Treatment by Styles.

ANDREW, Edwyn, M.D. Treatment of Lachrymal Obstruction.

CRITCHETT, G. Anderson, Esq. Ulcers of the Cornea: their Varieties and Treatment.

FORBES, Litton, Esq. 1. On the Relations existing between certain states of the Sexual Organs and Visual Disturbance. 2. The Doctrine of Enucleation.

HIGGINS, Charles, Esq. On the Treatment of Painful Corneal Ulcers by Warmth and Eserine.

JONES, A. Emrys, M.D. 1. A Case of Orbital Abscess communicating with the Brain. 2. A Case of Embolism (!) of the Central Artery of the Retina connected with Facial Erysipelas.

JULER, Henry, Esq. On the Relative Merits of the Various Methods of Testing the Refraction of the Eye.

LEE, Charles George, Esq. Notes on the Ophthalmic Conditions of Deaf-Mutes.

McKEOWN, W. A., M.D. The Treatment of Accidental Dislocation of the Lens.

MACNAMARA, Charles, Esq. On the Pathology and Treatment of Zonular Cataract.

MILES, P. H., M.D. An Electric Movement for Carter's Astigmatic Clock.

SNEARS, Charles, Esq. Tobacco Amblyopia.

TAYLOR, Charles Bell, M.D. 1. On the Operative Treatment of Sympathetic Ophthalmia, with Cases. 2. On Transplantation of Skin with Temporary Pedicle without Scar. 3. Notes on the Operation for Cataract, with and without Iridectomy.

WATSON, W. Spencer, Esq. Shot-Silk Appearance of the Retina.

WOLFE, John R., M.D. 1. On the Transference of Conjunctiva from the Rabbit to the Human Subject for the Cure of Symblepharon. 2. On the Treatment of Suppuration of the Tear-Passages.

#### SECTION I.—DISEASES OF CHILDREN.

Three special subjects have been selected for discussion—

1. Dr. T. Barlow will open a discussion on Rheumatism and its Allies in Children. The following gentlemen have promised to take part in the discussion:—Dr. O. Sturges, Dr. Richards, Dr. Finlayson, Dr. Sansom, Dr. Mahomed, Dr. J. S. Bury, Dr. Donkin, and Dr. Byers.

2. Dr. Ballard: On the Etiology and Pathology of Summer Diarrhoea. The following gentlemen have promised to take part:—Dr. Borchardt, Dr. Seaton, Mr. W. Hugh Hughes, Dr. Bruce Low, Dr. Strange, Dr. A. Ransome, and Dr. Maccall.

3. Mr. Morratt Baker: On Acute Epiphyseal Necrosis and its Consequences. The following gentlemen are likely to take part:—Mr. J. H. Morgan, Mr. R. W. Parker, Mr. G. A. Wright, Mr. G. Cowell, Mr. E. Owen, and Mr. A. Caesar.

The following papers are promised:—

ASHBY, H., M.D. On Scarlatinal Rheumatism.

BURY, J. S., M.D. A Case of Osteomalacia in a Child.

DAY, W. H., M.D. A Case of Croupous Pneumonia in a Child treated successfully by the Cold Bath.

GEE, Samuel J., M.D. Some kinds of Albuminous and Purulent Urine in Children.

MORGAN, J. H., Esq. A Case of Epiphyseal Necrosis of the Humerus, followed by considerable Shortening of the Arm.

MORISON, B. G., M.B. Infantile Diarrhoea and its Treatment.

OXLEY, M. G. B., M.D. Fatal Case of Chorea in a Child aged ten years.

PUGHE, R. N., Esq. Operations for the Radical Cure of Hernia in Childhood.

RAWDON, H. G., M.D. On the Operation for Hare-lip.

STEAVENTSON, W. E., M.D. On Electricity in the Treatment of Infantile Paralysis.

STURGES, O., M.D. On the Alliance of Rheumatism and Chorea.

THOMAS, W. R., M.D. On Intermittent Fever among Children in Low-lying Districts: its Frequency, and the importance of recognising it, owing to its Curability.

TOMKINS, H., M.D. On the Clinical Features of Typhus Fever in Children.

WRIGHT, G. A., Esq. On the Value of Localising the Primary Lesion in Joint-Disease as an Indication for Treatment.

#### SECTION J.—OTOLOGY.

Discussions will take place on the following subjects:—

1. A discussion on the more serious aspects of Chronic Purulent Inflammation of the Middle Ear will be introduced by Dr. W. Laidlaw Purves.

2. A discussion on the various forms of Artificial Tympanic Membrane, and their Comparative Value, will be introduced by Dr. F. M. Pierce.

The following gentlemen have expressed their intention of taking part in the discussions:—Dr. Edward Woakes, Dr. Thomas Barr, Dr. Urban Pritchard, Dr. William A. McKeown, Dr. J. W. Browne, Dr. Richard Ellis, Dr. H. J. Hardwicke.

The following papers have been promised:—

BARR, Thomas, M.D. Practical Observations on the Use of the Cotton-Pellet (Yearsley's Artificial Tympanic Membrane) as an Aid to Hearing.

CASELLS, James P., M.D. An Analysis of Ten Years' Aural Surgery.

FORBES, Litton, Esq. The Indications for, and Therapeutic Value of, Myringectomy.

McBRIDE, P., M.D. The Prognosis of Chronic Non-Suppurative Inflammation of the Middle Ear.

TORRANCE, Robert, Esq. Deafness in Cerebro-Spinal Meningitis.

WILLIAMS, Richard, Esq. A Fatal Case of Chronic Purulent Inflammation of the Middle Ear, from Extension to the Intracranial Cavity.

**THE FEAR OF PREMATURE INTERMENT.**—In the will of the late Major Andrew Gammell, which has just been proved as amounting to £107,000, he desires that immediately after his supposed death a surgical examination be made by Mr. Barnard Holt, or some other eminent surgeon, to see if he be really dead, and that a fee of one hundred guineas be paid for such examination, free of legacy duty.

**THE ODOUR OF IODOFORM.**—This, Dr. Andrews (*New York Med. Record*, June 30) states, may be effectually removed by adding (as a minimum) three grains of cumarin to a drachm of iodoform. Cumarin, a derivative of the Tonka bean, is an anhydride of cumuric acid. The Tonka bean itself placed in the bottle containing the iodoform is not effectual.



## NOTICES OF BOOKS.

*Gout in its Protean Aspects.* By J. MILNER FOTHERGILL, M.D., M.R.C.P., Hon. M.D. Rush College, Chicago, etc. London: H. K. Lewis. 1883. Pp. 300.

To readers of previous works by the same author it will be sufficient for us to record the fact that in the work before us Dr. Fothergill has adopted the same system of treating his subject as in the numerous volumes with which they are already familiar. To those who read his books for the first time a description of the present work and the methods adopted in its production may be of service. The treatise bears an attractive title, which is designed to prepare the reader to give his attention to those forms and manifestations of gout which have not the same well-defined symptoms and pathology as the forms of regular articular gout. The work is divided into chapters dealing respectively with the conditions of the blood and the urine in gout, with the diagnosis, prognosis, and treatment of the disease, and with the conditions described as "rheumatic gout" and "chronic rheumatism." The whole book bears the name of Dr. Fothergill as its author, but after careful perusal we are obliged to notice the fact that only very small portions of the text, and those for the most part in the chapters relating to "treatment," bear upon them any evidence of being the original work of the writer. In the opening of his chapter on Prognosis, and in a footnote affixed thereto, he states clearly his preference for the use of the language of other authorities on the subject, to his own, and maintains that by so doing he is acting in the true interests of the reader. The reader may or may not be prepared to agree with him in this, but it is clearly "in the true interests of the reader" that the reviewer should make known to him that "*Gout in its Protean Aspects*" consists for the most part of a series of quotations from the works of previous writers on the same subject, blended together under the various headings alluded to, by writing of the kind known as "readable." In some branches of literature—as, for instance, in the dramatising of novels, where the bulk of the play is written in the very words of the novelist—the title of "author" has been long since disallowed, and the adapting playwright is no longer permitted to pose as an original dramatist.

To what extent Dr. Fothergill himself agrees with the opinions which he quotes it is difficult in places to discover. Thus, we find him teaching on page 39 (by quotation) that the gouty forms of certain skin affections are characterised by intense itching. On page 124 we find him expressing his own conviction that "these affections when gouty have no special characteristics." The repetition of his own and other writers' views as to the connexion of gout with good living adds to the size of the book, but not to its interest. The chapter on Treatment of Chronic Gout, however, deserves perusal, not only as being a useful *resumé* of all the well-known rules, but also as containing views, especially as to the use of fruits with alkalies, which merit more than passing consideration.

As an addition to the stock of our knowledge with respect to the nature of gout the work is of no great value, nor is it comprehensive of all the information which we possess with respect to the part played by the lymphatic and hæmatopoietic tissues as lately enunciated by Ebstein and others. As a very readable, popular summary of all the best-known facts on the subject as found in the larger text-books, the work will be found acceptable by those who have the leisure to indulge in this species of literature.

*The Daily Clinical Charts.*

We have received from Messrs. Salt and Sons, of Birmingham, a packet of these charts, which have been designed by Dr. Sawyer. They are arranged to record, and show at a glance, in a tabular form, a patient's daily progress as regards medicines, stimulants, food, sleep, excreta, and so on, leaving a wide margin for remarks. No column is set apart for a statement of the patient's temperature, but this can doubtless most usefully and graphically be recorded on a special and separate form. The charts are supplied stitched in paper-covered bundles, are very comprehensive, and, if the nurse be trustworthy, will be found very useful in practice, whether private or in hospital.

*Sick-Room Charts.*

MR. STRICKLAND, pharmaceutical chemist, of South Kensington, has also sent us a set of charts which he has devised for the sick-room. Separate columns are marked for information as to nutriment, stimulants, medicine, sleep, the excreta, the pulse, and the temperature. Distinct sheets are provided for the twelve hours from 8 a.m. to 8 p.m., and from 8 p.m. to 8 a.m., and each hour is divided into quarters; a space is provided at the bottom of each form for the nurse's signature, and one for "remarks." A form is also provided for a weekly return, giving for each day the totals as respects duration of sleep, the quantity of stimulant, and the amount of urine passed. Mr. Strickland's sick-room charts, or "Nurses' Returns," would certainly be found very useful in recording the progress of a case with ideal perfection as to minuteness and fulness, but we fear he will learn that they are too minutely comprehensive and exacting for any but exceptional cases.

*The History of the Year: a Narrative of the Chief Events and Topics of Interest from Oct. 1, 1881, to Sept. 30, 1882.* London: Cassell, Petter, Galpin, and Co. 8vo, pp. 568.

THE pressure on our columns has alone prevented our giving an earlier notice of this volume, which contains a summary of all the leading public events of the twelvemonth preceding its publication, and notes the progress made in the various departments of human activity. In the different chapters of the work the history of the year is given—clearly, though of course in a very condensed form—as regards home and foreign politics, events in the colonies and India, and in foreign states, financial and commercial matters, literature, art, music, scientific progress, religion, athletics, and even fashion. An obituary of eminent persons is also given. An appendix contains many useful statistical tables, of public revenue and expenditure, population, taxation, import and export trade, etc.; and there is a copious index. All the work seems to have been well and carefully done; and the book will unquestionably be found very useful as a handy means of reference to all events of note in the period dealt with.

*History of Rome and of the Roman People, from its Origin to the Establishment of the Christian Empire.* By VICTOR DURUY. Edited by the Rev. J. P. MAHAFFY. London: Kelly and Co., Great Queen-street, W.C. To be completed in 38 Parts.

THIS valuable work, the first part of which we noticed in our issue of March 10, has been brought out regularly, and as perfectly in all points as at first. In consequence of the numerous representations made to them as to the length of time that would elapse before the completion of the work, the publishers have decided to double the size of the monthly parts, thus completing the work in three years instead of six; but the price of each part is only increased from four shillings to five, making the cost of the whole only £9 6s., instead of £14 8s. Parts 5 and 6, which belong to the enlarged series of parts, are now before us, and are as admirably produced as to paper, typography, and illustrations as were the four preceding parts. The work is, in every particular, deserving of the highest praise.

**IODOFORM IN FISSURE OF THE ANUS.**—Dr. Hay, of Philadelphia (*Phil. Med. Reporter*, April 14), states that the value and efficacy of iodoform are very great, so that it will in most cases supersede the use of the knife or forcible rupture. While using it the bowels must never be allowed to become constipated or relaxed, and the parts around must be kept constantly clean, so that there may be no deposit of dry incrustations. With one or two evacuations a day, the fissure may be speedily cured by the iodoform, which should be dusted in very fine powder, three or four times a day, upon and into the fissured parts, or applied as ointment or suppository. In some cases the powder, however fine, causes some pain, and then should be mixed with pulv. acaciæ, or it may be made into an ointment with vaseline, or suppository with oil of theobroma. Balsam of Peru, carbolic acid, or peppermint oil will moderate the odour of the iodoform. There may be a little smarting after the application, but the parts soon become insensible to this, and defæcation can now be performed without the previous pain. It is asserted that the powder should be *very fine*, not the smallest crystal remaining unpowdered, or great suffering may be produced.



## REPORTS OF SOCIETIES.

## OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 4.

Dr. GERVIS, President, in the Chair.

## HÆMORRHAGE INTO AN OVARIAN CYST.

Dr. ROBERT BARNES exhibited a specimen of hæmorrhagic effusion into an ovarian cyst and the corresponding Fallopian tube.

## MODES OF SEPARATION AND EXPULSION OF PLACENTA.

Dr. CHAMPNEYS showed two experimental demonstrations which he had used in lecturing since 1882, to illustrate—1. The mode of separation of placenta (*a*) by contraction of placental site, as in ordinary labour, and (*b*) by expansion of placental site, as in placenta prævia; and, 2. To illustrate the mechanical advantage of the edgewise presentation of the placenta.

## OVARIAN AND UTERINE TUMOURS.

Dr. MEADOWS showed a large ovarian tumour, together with the other ovary, the uterus, and a fibroid weighing six pounds and a half, which he had removed from a patient aged sixty-five.

## SLOUGHING UTERINE FIBROID.

The PRESIDENT showed a large submucous fibroid, which had sloughed suddenly and completely without any obvious cause or premonitory symptoms. There was also double pyosalpinx, and one tube had ruptured, causing fatal peritonitis.

## PSEUDO-HERMAPHRODITISM.

Dr. CHALMERS exhibited the genito-urinary organs of a female child whose sex during life had been matter of doubt. The child had been shown at a former meeting of the Society.

## HYDATIFORM MOLE.

Dr. W. A. DUNCAN exhibited a hydatiform mole which he had removed from a patient aged fifty-one. The patient had suffered from hæmorrhage for three months previously, but had had no symptoms of pregnancy.

The specimen was referred to a committee for further examination and report.

## OVARIAN AND UTERINE TUMOURS.

Mr. KNOWSLEY THORNTON showed a soft uterine growth and an ovarian tumour removed from a patient aged fifty-six. The nature of the growth he hoped to report on at a subsequent meeting. He also showed an ovarian cyst highly congested from twisting of the pedicle, which had been removed during acute peritonitis. He thought that in the specimen shown by Dr. Robert Barnes the hæmorrhage was probably the effect of twisting of the pedicle.

Mr. LAWSON TAIT agreed with Mr. Thornton as to Dr. Barnes's specimen. Such twisting mostly occurred in tumours growing from the right side, and depended on the action of the rectum.

## FIBRINOUS POLYPUS.

Mr. W. S. A. GRIFFITH showed a uterus containing a fibrinous polypus, four inches long, formed of organised adherent blood-clot. There was no reason to think that recent pregnancy had occurred. The patient died from the bursting of a perinephritic abscess.

## HYPERTROPHIED NYMPHA.

Dr. FANCOURT BARNES showed a hypertrophied nympha which he had removed.

## THE OBSTETRICS OF THE KYPHOTIC PELVIS.

This paper, by Dr. CHAMPNEYS, was then read. An analysis was given of thirty-two labours in twenty women, including three labours in a patient of the author's, the last labour having been carefully observed. An analysis and a table were given, stating the presentation, change during labour, measurements of foetal skull and pelvis, operative measures, moulding of foetal skull, result to child and mother. The general remarks of other writers on the subject were summarised. The general conclusions at which the author arrived were the following:—That vertex presentations, and especially right occipito-iliac positions, are

unusually frequent; deep transverse position is common; posterior rotation not uncommon. The comparative frequency of occipito-posterior positions is probably due (as explained by Hoening) to the obstacle to forward rotation in third positions, which are very common. The head sometimes emerges from the ligamentous pelvis transverse or nearly so, and entirely posterior to the tubera ischii. The analogy to the "extra-median" position was pointed out. The well-known looseness of the pelvic joints in this pelvis probably assisted this by the nutation of the sacrum. Spontaneous premature labour is not uncommon. The immediate foetal mortality in the published cases was 40.6 per cent., the maternal 28.1 per cent., but the author thought this estimate probably too high, as slight cases were not recorded. The conclusions as to treatment and prognosis were:—1. In a first labour, if the head present, wait, and act according to circumstances. This implies forceps, craniotomy, or Cæsarian section, which should always be considered in the above order. 2. If the head present, never turn. 3. In subsequent labours, where the history of the first labour seems to indicate it, premature labour may be induced with good hope. 4. No known measurements give us any sure indication for forceps, turning, Cæsarian section, or the date for induction of premature labour. 5. The mobility of the pelvic joints implies a prognosis always more favourable than measurements would lead us to suppose. 6. Probably in many cases the head entirely neglects the anterior half of the pelvic outlet, and emerges from it transverse, or at most oblique, antero-posterior emergence being the exception. 7. Each succeeding difficult labour increases the liability of the uterus to rupture, as in other forms of pelvic distortion.

Dr. ROPER remarked that the mechanism described by Dr. Champneys resembled that of labour in the lower animals, in which there was no pelvic arch, and the foetus always passed behind the ischial tuberosities. This diminution of curve in the pelvic axis somewhat lessened the difficulty of labour. In cases of kyphosis the vertical capacity of the abdomen was diminished, hence the uterus was thrust forward and pendulous belly was common, and led to difficulty in the entry of the foetus into the brim. He described a case which he had seen. In these cases the deformity of the outlet obstructed delivery more than that at the brim.

Dr. HERMAN agreed with the author that the published cases probably contained an undue proportion of difficult cases.

Dr. CHAMPNEYS thought that pendulous belly was produced by anything which shortened the abdominal cavity.

## A NOTE ON UTERINE MYOMA: ITS PATHOLOGY AND TREATMENT.

This paper, by Mr. LAWSON TAIT, was then read. The author thought that the word "myoma" should entirely supersede the incorrect term, "uterine fibroid." The growth of ordinary myoma was limited to the period of sexual activity, was influenced by the menstrual function, and probably its ultimate cause would be found in some disturbance of the nervous body which governed that function. The presence of a myoma indefinitely delayed the menopause. Menstruation and ovulation, he thought, were completely independent functions, having perhaps a community of purpose. Removal of the ovaries often did not affect menstruation, but removal of the tubes nearly always did so. But in one case in which he had removed both ovaries, tubes, and part of the fundus uteri, menstruation continued for more than a year. He deprecated the triple subdivision of myomata into submucous, intramural, and subperitoneal. For pathological and surgical purposes he proposed a new subdivision into the nodular and the concentric. The latter consisted of a uniform hypertrophy of the muscular tissue of the uterus, in the midst of which the canal lay centrally; the tissue of this form was loose, and usually very cedematous. Of the nodular myoma he proposed two sub-varieties, the simple and the multi-nodular. He believed that each nodule was seated on a central arterial twig, and that its growth was endogenous, the older tissue being on the outside. The dependence of such growth on menstruation was proved by the fact that arrest of menstruation arrested the growth, or even caused the complete disappearance of such tumours. This had been in several cases brought about by the removal of the tubes only. He had treated fifty-four cases of uterine myoma by removal of the uterine appendages, with three deaths—a mortality of 5.5 per cent.,—a



striking contrast to the results of hysterectomy. Of these fifty-one, in thirty-eight the results had been carefully followed, and were everything that was to be desired. In three the tumours were, or became, malignant. In three others the tumours continued to grow, although menstruation had been arrested. The author suspected that these were either fibro-cystic, or myoma of the concentric variety, in neither of which forms was the removal of the uterine appendages useful.

The PRESIDENT was hardly prepared to accept Mr. Tait's classification; but it was not necessarily antagonistic to the one in common use. He agreed with Mr. Tait as to the delay in the menopause in these cases. He would like further evidence as to the sole or even large influence of the tubes in the phenomena of menstruation.

Dr. HERMAN had published a case in which the symptoms of a fibroid polypus first appeared sixteen years after the menopause. The history of patients after operations like those of Mr. Tait was of great importance, for patients not benefited often did not return to the operator, and he therefore was apt to get a too favourable impression of the results.

Dr. DEWAR asked if Mr. Tait was careful to tie the uterine artery, and whether removal of the tubes, leaving behind the ovaries, was not dangerous. He had seen one case in which the uterine appendages had been removed, and hysterectomy was subsequently required on account of hæmorrhage.

Dr. MEADOWS preferred the present classification of fibroid growths to that suggested by Mr. Tait, as being founded on clinical characters, and of great practical value for diagnosis and treatment. He believed that the ovaries, and not the tubes, were the prime movers in menstruation. In one case he had removed the ovaries and left the tubes, and menstruation ceased. He thought there were many exceptions to the rule that uterine fibromata ceased to grow after the menopause. Notwithstanding the high rate of mortality which attended hysterectomy, he preferred it to removal of the ovaries.

Mr. LAWSON TAIT said that cases of growth of apparent uterine myomata after the menopause needed most careful examination. Occasionally removal of the ovaries arrested menstruation, but this was the exception. He had never knowingly tied the uterine artery, and it would be very difficult to do so.

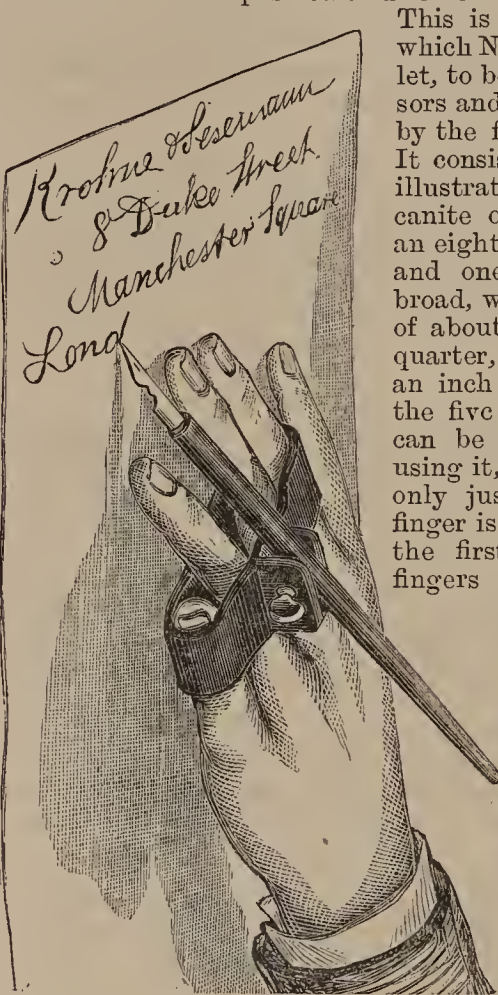
**HEALTH OF THE CITY OF GLASGOW.**—The medical officer's report for the fortnight ending July 7, 1883, states that during that period 552 deaths were registered, as compared with 602 for the previous fortnight—a decrease of 50, representing a death-rate of 28 (28·2), in place of 30, per 1000 living. There had been 101 deaths below one year of age, instead of 123, and 71, instead of 83, of those of sixty years and upwards. The number of deaths from fever was 9, in place of 7, viz., 5 from typhus and 4 from enteric fever. There had not been so many deaths from typhus registered in any fortnight since November, 1880, and not in July for at least ten years. The number of deaths from infectious diseases of children was 78, in place of 108, viz., measles 42, whooping-cough 25, and scarlet fever 11. The death-rate for the past fortnight was the lowest that had been reported since November last, and the improvement was due chiefly to the abatement of epidemic measles. The number of deaths registered last week from measles was only 12, which was the smallest number in any week since March. No cases of small-pox were registered during the fortnight. During the fortnight 122 cases had been admitted into the fever hospital, 107 were dismissed cured, and 15 died; 6 cases were dismissed from the small-pox hospital, and none admitted. There were 258 cases of measles registered, 73 of scarlet fever, 57 of whooping-cough, and 12 of diphtheria. There are at present in hospital 111 cases of scarlet fever, 63 of measles, 38 of enteric fever, 28 of typhus fever, 24 of whooping-cough, 2 of erysipelas, 1 of diphtheria, and 1 of small-pox, giving a total of 268 cases.

**FORMULA FOR CORNS.**—Dr. Barbier, writing in the *Abeille Médicale*, recommends as a most useful application, which he has repeatedly tried, equal parts of acetic acid and tincture of iodine. A few drops are applied night and morning, which gradually use up the pachydermatous covering to its very root.

## NEW INVENTIONS AND IMPROVEMENTS.

### NUSSBAUM'S BRACELET FOR WRITER'S CRAMP.

WE have received from Messrs. Krohne and Sesemann, of Duke-street, Manchester-square, a specimen of the bracelet invented by Professor von Nussbaum, of Munich, for the treatment of the spasmodic disease called writer's cramp.



This is in fact a penholder, which Nussbaum calls a bracelet, to be guided by the extensors and abductors, instead of by the flexors and adductors. It consists, as shown in the illustration, of a band of vulcanite of oval shape, about an eighth of an inch thick, and one inch and a quarter broad, with an oval diameter of about three inches and a quarter, and a short one of an inch and a quarter. All the five fingers of the hand can be slipped into it. In using it, however, the thumb only just enters, the little finger is left free outside, and the first, second, and third fingers are passed in fully.

The instrument can only be held firmly by expanding the fingers strongly, bringing into play the abductors of the thumb and the extensors of the first and fourth fingers. The pen is screwed to the bracelet so as to be in contact with the paper when the hand lies on a table. Professor von

Nussbaum has tried the treatment of the instrument in a large number of well-marked cases of the disease; and states that all the patients wrote easily and well with it, and all of them said they felt comfortable and confident in employing it, writing without any fear of spasm being excited. The instrument is very simple; and any patient employing it should be encouraged to write as much as possible with it, in order to strengthen thereby the antagonists of the muscles liable to the spasmodic contraction.

### POCKET MEDICAL EMERGENCY CASE.

By T. FREDERICK PEARSE, M.D.

THIS case, which is made of ebony, resembles in form a large drawing-pencil. It contains at one end a special hypodermic syringe, and at the other end is a series of compartments which contain discs and perles of such drugs as are most likely to be required on emergencies. The chief



of these are—Morphia, to relieve sudden and acute pain; Apomorphia, to excite vomiting quickly; Nitrite of Amyl, in perles, for employment in angina, etc.; and Ether, in perles, to be used as a rapid stimulant in cases of syncope, etc. Each compartment is labelled with the name and strength of the drug contained. The case, which is made by Messrs. Arnold and Sons, of London, is very compact and handy, and will be found very useful in most emergencies.

### PURE AERATED WATERS.

WE have received from Messrs. Packham and Co., of Croydon, samples of various aerated beverages of their manufacture, which deserve high commendation. The



water employed by the firm is from the deep Croydon wells, and though this is naturally very pure, it is distilled and filtered through charcoal before being aerated. The excellence of the processes employed, and the care taken to secure the purity and safety of the beverages manufactured, appear to be perfectly trustworthy, and are certified by Professors Attfeld and Wanklyn. Among the samples sent to us were Orange Champagne, Lemon Champagne, Sparkling Lime Wine, Ginger Ale, an excellent Artificial Seltzer Water (containing a little carbonate of magnesia in the place of carbonate of lime), and Hedozone, an already well-known "phosphated tonic" drink. All are very good, and less sweet than are most of the non-alcoholic beverages provided for the consumer of such drinks; but the best are, we think, the Artificial Seltzer Water, the Ginger Ale, and the Hedozone. All are non-alcoholic.

#### SAVORY AND MOORE'S PREPARATIONS OF CONVALLARIA.

THE common lily of the valley, the *Convallaria majalis*, has lately, as our readers are aware, received much attention as a drug of marked value in the treatment of certain cases of disease of the heart. It was noticed by Dr. Sansom in his Lettsomian Lectures, which were placed before the profession in our pages; and we have received from Messrs. Savory and Moore, 143, New Bond-street, London, samples of the preparation of the drug prepared by them for his use. These preparations consist of an extract, the dose of which is from five to eight grains; a fluid extract, to be given in doses of from five to twenty minims; and a yellowish-white amorphous powder, called Convallamarin, the dose of which is from one-eighth of a grain to two grains. The name of the manufacturing firm is a sufficient guarantee for the purity and excellence of the preparations. A summary of the investigations made into the properties and therapeutical uses of the drug by Botkin and Troitzky, by Germain Sée, and by Stiller, was given in the *Medical Times and Gazette* of January 6 last.

#### MEDICAL NEWS.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 12th inst., and when eligible will be admitted to the pass examination, viz.:—

Blamey, J. H., student of University College Hospital.  
 Farr, Ernest, of the Charing-cross Hospital.  
 Fenner, Algernon, of King's College Hospital.  
 Gilkes, E. O., of the London Hospital.  
 Hinde, A. B., of the Middlesex Hospital.  
 Ives, W. R. Y., of the Charing-cross Hospital.  
 Jaques, J. W., of St. Bartholomew's Hospital.  
 Jarvis, W. C., of the London Hospital.  
 Lester, Edward, of Guy's Hospital.  
 Lipscomb, E. H., of Guy's Hospital.  
 Mallet, T. C., of St. George's Hospital.  
 Palmer, H. G., of St. Thomas's Hospital.  
 Parsons, F. G., of St. Thomas's Hospital.  
 Pettigrew, H. T. D., of St. George's Hospital.  
 Rigden, Allen, of St. George's Hospital.  
 Ware, G. S., of the Middlesex Hospital.  
 Woodhouse, F. D., of St. George's Hospital.

Eight candidates were referred for three months, and three for six months. With this meeting of the Board the Primary examinations for the Membership of the College for the present session were brought to a close, and out of the 222 candidates examined, seventy-one, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, and twelve for six months, making a total of eighty-three. At the corresponding period last year there were 252 candidates examined.

At the last meeting of the Council of the College, Mr. John Edward Smyth, L.R.C.P. Edin., of Sugden-road, Clapham, was admitted a Fellow, his diploma of membership bearing date June 3, 1842.

The following gentlemen, having undergone the necessary examinations, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst.:—

Beck, G. S., M.B. Toronto, Peterborough, Canada, student of the Toronto School.  
 Bird, F. D., M.B. Melb., Melbourne, of the Melbourne School.

Cameron, C. E., M.B. McGill, Montreal, of the McGill School.  
 Ford, G. W., L.R.C.P. Edin., Upper Kennington-lane, of St. Thomas's Hospital.  
 Fraser, T. A., M.B. Edin., Edinburgh, of the Edinburgh School.  
 Gandevia, N. B., L.R.C.P. Lond., Bombay, of the Grant Medical College.  
 Gardner, T. F., L.S.A., Watford, of University College Hospital.  
 Hunter, William, M.B. Edin., Birkenhead, of the Edinburgh School.  
 Jones, J. E. E., L.R.C.P. Lond., New Swindon, of the Middlesex Hospital.  
 Khan, M. I., L.R.C.P. Lond., Chesterton-road, W., of the Madras School.  
 Macdonald, W. H., M.B. Toronto, Toronto, of the Toronto School.  
 McKenzie, Archibald, M.B. Edin., Natal, of the Edinburgh School.  
 Mackinnon, F. J., M.B. Edin., Edinburgh, of the Edinburgh School.  
 Nattress, William, M.B. Toronto, Toronto, of the Toronto School.  
 Nicolet, G. P., M.B. Edin., Edinburgh, of the Edinburgh School.  
 Priestley, Joseph, M.B. Edin., Manchester, of the Edinburgh School.  
 Reekitt, J. D. T., L.R.C.P. Edin., A.M.D., of the Leeds School.  
 Rodman, G. H., M.B. Durh., Selhurst-road, S.E., of the Newcastle School.  
 Rudge, H. T., L.R.C.P. Edin., Bristol, of the Bristol School.  
 Shuter, C. Y., L.S.A., Putney, of Guy's Hospital.  
 Vincent, George, M.B. Aber., Bedford, Middlesex, of the Aberdeen School.  
 Ward, A. O., M.B. Edin., Eastbourne, of the Edinburgh School.  
 Willett, E. W., L.S.A., Brighton, of St. Bartholomew's Hospital.  
 Woodbury, J. McG., M.D. New York, New York, of the University of New York.

One gentleman was approved in Surgery, and, when qualified in Medicine, will be admitted a Member of the College, and four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies—two for six months, and two for three months. At this meeting of the Court, Mr. Edward Lund, of Manchester, the recently elected member of the Court of Examiners, took his seat. The following gentlemen were admitted Members of the College on the 17th inst., viz.:—

Baxter, W. W., L.R.C.P. Edin., Pontardawe, student of University College Hospital.  
 Beebe, C. E., L.S.A., Cambridge-street, S.W., of Guy's Hospital.  
 Cox, J. H., L.S.A., Doddington-grove, S.E., of Guy's Hospital.  
 Craig, James, M.B. Edin., Castle Douglas, N.B., of the Edinburgh School.  
 Donald, Archibald, M.B. Edin., Edinburgh, of the Edinburgh School.  
 Ellis, J. L., L.K. & Q.C.P. Ire., Dinas Mawddwy, Merionethshire, of the Dublin School.  
 Holyoake, J. P., L.R.C.P. Edin., Kinver, Staffordshire, of University College Hospital.  
 Jones, J. H., L.S.A., Manchester, of the Manchester School.  
 Lawry, T. S., M.B. Edin., Auckland, of the Edinburgh School.  
 Lloyd, H. S., M.B. Edin., Adelaide, of the Edinburgh School.  
 Mackay, George, M.B. Edin., Inverness, of the Edinburgh School.  
 Nieuwoudt, Gerrit, M.B. Edin., Cape of Good Hope, of the Edinburgh School.  
 Parsloe, H. H., L.R.C.P. Edin., Chippenham, of University College Hospital.  
 Paterson, A. M., M.B. Edin., Manchester, of the Manchester School.  
 Phillpott, G. F., L.R.C.P. Edin., Norton, near Stourbridge, of University College Hospital.  
 Shillito, W. A., L.S.A., Sheffield, of the Sheffield School.  
 Sutcliffe, V. Eugene, L.R.C.P. Edin., Scarborough, of the Leeds School.  
 Welchman, E. W., L.R.C.P. Edin., Lichfield, of the Birmingham School.  
 Wilson, T. S., M.B. Edin., Birmingham, of the Edinburgh School.

Eleven candidates were referred—viz., six for six months, and five for three months. The following gentlemen were admitted Members of the College on the 18th inst., viz.:—

Gostling, W. A., Diss, Norfolk, student of University College Hospital.  
 Jackson, A. M., Great Grimsby, of St. Bartholomew's Hospital.  
 Overton, Arthur, Horncastle, of the Liverpool School.  
 Pedley, R. D., Stockwell, of St. Thomas's Hospital.  
 Southcombe, A. G., Bath, of St. Bartholomew's Hospital.  
 Stericker, G. F., Pickering, of the Leeds School.  
 Travis, W. O., Liverpool, of the Liverpool School.

Six candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members, viz.:—

Dunn, J. E., L.R.C.P. Edin., Preston, student of St. Thomas's Hospital.  
 Gordon, A. H., L.R.C.P. Edin., Belsize-park, of King's College Hospital.  
 Kitching, J. S. W., L.S.A., Derby, of St. Thomas's Hospital.  
 Morgan, L. A., M.B. Durh., Myddelton-square, of St. Thomas's Hospital.  
 Papillon, J. W., L.S.A., Reading, of St. Thomas's Hospital.  
 Roberts, A. H., L.R.C.P. Lond., Hampstead, of St. Bartholomew's Hospital.

One candidate who had previously qualified in Surgery and Midwifery, having passed in Medicine, was also admitted a Member, viz.:—

Foster, A. E., Bradford, student of the Leeds School.

Seven candidates passed in Surgery, and when qualified in Medicine and Midwifery will be admitted Members. Five candidates were referred for six months, four for three months, and one for twelve months.

**Pass Examinations.**—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the 252 candidates for the diploma of Membership of the Royal College of Surgeons of England at the written examination on the 13th inst., when they were required to answer at least four (including one of the first two) out of the six questions, from 1.30 to 4.30 p.m.,



viz.:—1. Describe the operation of enucleation of the eyeball; enumerate all the structures divided in its performance. 2. Describe an amputation a hand's breadth below the knee-joint, and give the relative position of the structures seen on the face of the stump. 3. Mention the causes and describe the treatment of purulent discharge from the ear. 4. Give the various positions in the air-passages in which a foreign body may lodge; describe the symptoms and treatment in each case. 5. Define briefly the following terms:—(a) ranula; (b) epulis; (c) melanosis; (d) Pott's disease; (e) paraplegia; (f) renal colic; (g) staphyloma. 6. What are the causes, symptoms, and results of acute suppuration in the knee-joint? Give the treatment appropriate to its various stages.—On the following day, from half-past twelve to two o'clock, candidates were required to answer three of the four following questions on Midwifery and Diseases of Women, viz.:—1. How would you treat a case of labour rendered difficult by impaction of the breech? 2. What are the causes of rigidity of the os uteri during labour? How would you treat this condition? 3. What is the lochial discharge? What are its characters in a natural lying-in? What alterations in it would you regard as indications of a morbid process? How would you treat the conditions in question? 4. What symptoms are commonly associated with retroflexion of the unimpregnated uterus? How would you treat this condition?—On the same day, from half-past two to half-past four o'clock, candidates were required to answer three out of the following four questions on the Principles and Practice of Medicine, including question No. 4, viz.:—1. Describe the signs and symptoms of hydrothorax, and the points of distinction between it and conditions which may be mistaken for it. Mention the causes that give rise to it, and the treatment required in different circumstances. 2. Describe the symptoms and course of tubercular meningitis, and the pathological changes as observed after death. 3. Describe a fit of ague. What varieties of this disease are found in England? What is known as to the conditions in which it arises? What treatment is required? 4. Indicate the effects and uses of calomel, tartarated antimony, iodide of potassium, digitalis, colchicum, and ipecacuanha. Name the preparations of each, and their doses.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 12:—

Beebe, Charles Edward, Cambridge-street.  
Colman, Henry, Cumberland House, Kew.  
Donovan, Denis William, Keppel-street, Russell-square.  
Felix, Edward, Bedford-square.  
Green, Edwin Collier, Telford-avenue, Streatham.  
MacLeroy, Arthur Lloyd, The Hyde, Hendon, N.W.  
Parry-Jones, Maurice, Trinity-square, S.E.  
Robertson, James Sprent, Netherwood-road, Kensington.  
Rook, Albert Edward, London-road, Forest Hill.  
Shuter, Charles Yaldwyn, Lower Richmond-road, Putney.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Gimblett, William Henry, Middlesex Hospital.  
Praeger, Emil Arnold, Bristol General Hospital.

#### APPOINTMENTS.

\* \* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

ACKLAND, J. McKNO, L.D.S. Eng.—Dental Surgeon to the Exeter Dental Hospital, *vice* Augustus King, L.D.S. (resigned).

#### NAVAL, MILITARY, ETC., APPOINTMENTS.

ARMY MEDICAL DEPARTMENT.—Surgeon-General John Andrew Woolfries, M.D., C.B., C.M.G., has been granted retired pay; Surgeon-General James Edmund Clutterbuck, M.D., has been granted retired pay.

WHITEHALL.—The Lord Chancellor has appointed Reginald Southey, M.D., to be a Commissioner in Lunacy, on the resignation of Robert Nairne, M.D.

#### DEATHS.

CROKER, JOHN REES, M.R.C.S., etc., at Malvern Link, Worcestershire, on July 12.

HOUSTON, PATRICK CRUIKSHANK, M.D., at Kirkealdy, on July 16.

MEIN, ARCHIBALD, M.D., formerly of 94, George-street, at 12, Glencairn-crescent, Edinburgh, on July 12.

STEWART, ALEXANDER PATRICK, M.D., at 76, Grosvenor-street, on July 17, in his 71st year.

THURSTON, GEORGE JAMES, M.R.C.S., L.R.C.P. Edin., at Sandown, Isle of Wight, on July 10, aged 56.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY, 23, QUEEN'S-ROAD, BRIGHTON.—Honorary Assistant-Surgeon. Applications, together with copies of testimonials, to be sent to Christopher Challis, Hon. Sec., 60, King's-road, Brighton (of whom all further particulars may be had), on or before July 29.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—Dental Surgeon. Candidates must be Licentiates in Dental Surgery and Members of the Royal College of Surgeons. Applications and testimonials to be addressed to the Committee of Management at the Hospital, not later than July 24.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Salary £120 per annum, without board or apartments. Candidates must be doubly qualified. Copies of testimonials to be sent to Mr. Joseph Jordan, 2, Side, Newcastle-on-Tyne, on or before July 20.

LEEDS PUBLIC DISPENSARY.—Resident Medical Officer. Candidates must be qualified and unmarried. Applications and testimonials must be sent in before July 23, to Mr. H. Bendelack Hewetson, 11, Hanover-square, Leeds.

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY HATCH.—Assistant Medical Officer. (For particulars see Advertisement.)

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Junior Resident Medical Officer. (For particulars see Advertisement.)

SALOP INFIRMARY, SHREWSBURY.—House-Surgeon. Salary £100 per annum, with board and residence. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold also qualifications to practise medicine. Testimonials, with certificates of qualifications, to be addressed to the Board of Directors, not later than July 27.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

Bolton Union.—Mr. T. B. White has resigned the office of Resident Assistant Medical Officer to the Workhouse: salary £150 per annum.

Township of Manchester.—Mr. W. E. Bailey has resigned the office of Resident Assistant Medical Officer at the Crumpsall Workhouse: salary £140 per annum.

Reigate Union.—Mr. T. C. Lawson has resigned the No. 4 District: area 7162; population 2302; salary £40 per annum.

Skirlaugh Union.—Mr. Francis Calvert has resigned the Brandes Burton District: area 10,430; population 1582; salary £24 per annum.

#### APPOINTMENTS.

Skipton Union.—John Anthony, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Grassington District.

Stourbridge Union.—Henry Walker, M.D. Edin., L.R.C.S. Edin., L.S.A., to the Kingswinford District.

Tisbury Union.—Henry H. Bate, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Lond., to the Hindon District.

Wilton Union.—Daniel M. Jones, B.M. and M.C. Edin., to the Bishopstone District.

**PLEA OF INSANITY.**—At the New York Medico-Legal Society, the District Attorney, Colonel Corkhill, read a paper on "Insanity as a Defence of Crime," in which he referred to the great extent to which insanity has been used as an excuse for crime. Speaking of the cases in which men who avenge the ruin of their domestic bliss by killing the destroyer, and are acquitted on the ground of emotional insanity, he said, "Would it not be more creditable to our juries and more honourable to the administration of justice to let the jury say by their verdict that the justification of the crime was in the character of the act which provoked it, and not encourage and countenance this plea of insanity by a verdict as contrary to their oaths and to law as would be the former? If they must apologise, let it be the more manly apology of open refusal to find a prisoner guilty under such serious provocation than to shield themselves behind a defence which neither they nor the community which they represent believe." Colonel Corkhill does not think that insanity should ever be allowed as a plea of defence for crime in the trial of a prisoner under the indictment. When a prisoner proposes to defend his crime on the ground of insanity, a jury should be specially chosen for their fitness to try the special plea; and if the prisoner, after trial, is found to be insane, then he should be confined in an insane-prison a certain time, commensurate with the character of his crime. If, however, the verdict of the jury declare him to be sane, the plea of insanity should not be allowed on the trial of the cause. It is not a question whether the plea of insanity should be allowed as a defence for crime, but whether some means cannot be devised under the law by which its existence can be rationally and honestly determined.—*New York Med. Record*, June 23.



VITAL STATISTICS OF LONDON.

Week ending Saturday, July 14, 1883.

BIRTHS.

Births of Boys, 1275; Girls, 1259; Total, 2534.  
Corrected weekly average in the 10 years 1873-82, 2595·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	873	863	1736
Weekly average of the ten years 1873-82, } corrected to increased population ...	834·7	746·0	1580·7
Deaths of people aged 80 and upwards ...	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	1	2	2	3	...	3	2	58
North ...	905947	...	6	7	12	7	...	2	...	61
Central ...	282238	...	9	1	3	1	...	1	...	41
East ...	692738	...	22	14	4	5	...	3	1	71
South ...	1265927	...	32	6	5	15	1	4	1	94
Total ...	3816483	...	70	30	26	31	1	13	4	325

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	...	...	29·581 in.
Mean temperature ...	...	...	...	...	...	...	...	...	61·4°
Highest point of thermometer ...	...	...	...	...	...	...	...	...	78·1°
Lowest point of thermometer ...	...	...	...	...	...	...	...	...	51·0°
Mean dew-point temperature ...	...	...	...	...	...	...	...	...	55·6°
General direction of wind ...	...	...	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	...	...	...	0·87 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
Week ending Saturday, July 14, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending July 14.	Deaths Registered during the week ending July 14.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2534	1736	22·9	78·1	51·0	61·4	16·33	0·87	2·21
Brighton ...	111282	69	39	18·3	72·3	53·2	60·9	16·06	0·71	1·80
Portsmouth ...	131478	86	45	17·9	...	...	...	...	...	...
Norwich ...	89612	48	26	15·1	...	...	...	...	...	...
Plymouth ...	74977	44	20	13·9	67·7	52·9	59·1	15·06	0·45	1·14
Bristol ...	212779	132	69	16·9	69·0	51·6	58·3	14·61	0·48	1·22
Wolverhampton .	77557	61	32	21·5	75·3	46·4	58·0	14·44	0·61	1·55
Birmingham ...	414846	259	155	19·5	...	...	...	...	...	...
Leicester ...	129483	93	40	16·1	74·0	50·5	60·2	15·67	1·09	2·77
Nottingham ...	199349	139	73	19·1	77·8	48·3	61·6	16·45	0·26	0·66
Derby ...	85574	63	27	16·5	...	...	...	...	...	...
Birkenhead ...	88700	63	23	13·5	...	...	...	...	...	...
Liverpool ...	566753	352	253	23·3	69·4	49·3	57·6	14·23	0·55	1·40
Bolton ...	107862	74	37	17·9	69·5	45·8	56·2	13·44	0·83	2·11
Manchester ...	339252	239	168	25·8	...	...	...	...	...	...
Salford ...	190465	100	65	17·8	...	...	...	...	...	...
Oldham ...	119071	72	41	18·0	...	...	...	...	...	...
Blackburn ...	108460	85	35	16·8	...	...	...	...	...	...
Preston ...	98564	74	47	24·9	71·5	54·0	59·9	15·50	0·71	1·80
Huddersfield ...	84701	47	42	25·9	...	...	...	...	...	...
Halifax ...	75591	37	19	13·1	...	...	...	...	...	...
Bradford ...	204807	120	60	15·3	72·8	50·0	60·1	15·62	0·33	0·84
Leeds ...	321611	257	108	17·5	75·0	50·0	61·4	16·32	0·45	1·14
Sheffield ...	295497	214	113	20·0	73·0	49·0	59·3	15·17	0·19	0·48
Hull ...	176296	138	67	19·8	75·0	46·0	60·0	15·56	0·52	1·32
Sunderland ...	121117	71	225	96·9*	...	...	...	...	...	...
Newcastle ...	149464	117	78	27·2	...	...	...	...	...	...
Cardiff ...	90033	59	17	9·8	...	...	...	...	...	...
For 28 towns ...	5620975	5647	3660	22·2	78·1	45·8	59·6	15·34	0·58	1·47
Edinburgh ...	235946	128	63	13·9	70·8	47·2	59·0	15·00	0·85	2·16
Glasgow ...	515589	351	234	23·7	68·5	45·0	58·4	14·66	1·45	3·68
Dublin ...	349·85	174	138	20·6	67·6	47·3	58·1	14·50	1·03	2·62

\* This high death-rate is due to the registration of 177 deaths of children, resulting from the disaster at the Victoria Theatre in that town.

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·58 in. The highest reading was 29·74 in. both on Sunday morning and Monday evening, and the lowest 29·34 in. on Thursday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Professor Babington has prepared two pages of additions and corrections for the eighth edition of his “Manual of British Botany.” Anyone having the book may obtain these pages gratis on application to the publisher, Mr. Van Voorst, 1, Paternoster-row, E.C.

A Provincial Teacher.—Mr. Edward Lund, of Manchester, the recently elected member of the Court of Examiners of the Royal College of Surgeons, who took his seat at a meeting of the Court on the 16th inst., is not the first provincial surgeon so elected. Professor George Murray Humphry, of Cambridge, still a member of it, was elected in 1877. Mr. Lund was admitted a Member of the College, April 9, 1847, and a Fellow by examination, June 12, 1863.

The Thoughtless Use of Firearms.—Mr. Charles M. Leakey, medical student, was tried at the Leicester Assizes last week, charged with shooting a boy on April 30, and was found by the jury not guilty, and discharged. It will be remembered that the boy climbed the wall of the vicarage garden at Blaby to watch a lawn-tennis match. He refused to get down, and Mr. Leakey went and got his gun, into which he put, as he thought, a blank cartridge, but some shot had been left in it. He pointed the gun at the boy, merely intending to frighten him, and fired, when the lad sustained a wound in the chest and a severe shock. The boy’s family will be awarded adequate compensation.

A Student.—The examinations will be continued through this and the succeeding week.

A Fatal Case of Sea-Sickness.—An inquest has been held at Wapping on the body of a young woman, aged thirty-one, a lady’s maid. The deceased had been a passenger on board a steamer from Copenhagen. She suffered greatly from sea-sickness, and continued to do so during the whole passage. There was no doctor on board. When the steamer arrived at Gravesend she was insensible, and was afterwards found dead in her cabin. She appeared quite well when she went on board. The medical evidence, after a post-mortem examination, was to the effect that the body exhibited no marks of violence; the cause of death was sudden failure of the heart’s action from prolonged sickness. A verdict in accordance with the medical testimony was returned.

Fish Dinners for Paupers.—The Bristol Board of Guardians propose to try the experiment for one month of giving a fish dinner, once a week, to the inmates of the workhouse. Codfish and haddocks will be supplied from Grimsby at 2d. per lb.

Ambulance Field Day.—The ambulance department of the Birmingham Volunteers, accompanied by a section of G company, under the command of Surgeon-Major Thompson and Surgeon Freer, have had a field day for the purpose of practising the duties of a bearer company. The officers present expressed their entire satisfaction with the admirable skill shown by the detachment.

Adequate Legal Powers.—The Law and Parliamentary Committee of the Kensington Vestry report, with reference to the letter from the Fulham District Board of Works, forwarding a copy of a report of the Medical Officer of Health upon the recent outbreak of typhus fever at Nazareth House, Hammersmith, and the necessity of seeking Parliamentary powers for the sanitary regulation of public institutions of a character similar to that of Nazareth House, that the Committee were of opinion that the powers given by the Nuisances Removal Acts for the inspection of public institutions were sufficient, and that it was therefore unnecessary to seek for further legislation on the subject.

Sarcina Vomiting.—You will find the interesting lecture on “Disease of the Stomach and Vomiting of Sarcinæ,” by the late Dr. Todd, in the Medical Times and Gazette for July 1, 1854. Several cases of sarcina-vomiting were recorded by Dr. Ransom, of Norwich, also, in a paper published in this journal, November 12 and 19, 1853.

Collapse of the Grangemouth Public-house Cases.—Lord Zetland’s agents have intimated to the agent for the Grangemouth publicans that his lordship does not intend to proceed further with these cases, and that if the defenders allow the actions to drop he will not claim payment of the portion of the expenses in the Court of Session to which he was found entitled by the House of Lords. To this the defenders have agreed. The cases are consequently now at an end.

A Disinfecting Mishap.—A contemporary is responsible for the following story:—A doctor attended a small-pox patient on board the South Dublin Port Hospital Ship, which appears to be under the authority of the South Dublin Guardians. His duty performed, the question of disinfecting the doctor as well as his clothes was considered. It happened that not far from the Port Hospital Ship there was a small island; thither the doctor was conveyed. The disinfecting his apparel was easily disposed of, for it was completely destroyed by fire. The doctor’s personal disinfection remained; and, being left in the nude state, he plunged into the sea and soon succeeded in reaching the shore. Whether he met on landing with any sympathy, and how he reached his home, are left to conjecture.



*Dr. Thompson.*—The new Calendar of the College of Surgeons does not go to press until after the annual election of President and Vice-Presidents, and therefore will not be published for several weeks. It will give you the desired information on both subjects of your inquiry.

*The National Sanitary Corporation.*—This scheme is comprehensive. It comprises the rendering of homes and public buildings perfect in drainage, ventilation, light, and temperature—objects which are to be accomplished by the employment of professional specialists in reporting, detecting, and remedying defects. After the completion of the works recommended, the directors will be prepared to give certificates, under their seal, that the sanitary condition of the home or building has been perfected.

*Coventry.*—Small-pox having been discovered to have broken out in one of the chief hotels of the city, the sanitary authority immediately took the necessary steps to isolate the disease and prevent its spreading.

*Vaccination.*—It is understood that the late discussion in the House of Commons on this question has stimulated the Brighton Board of Guardians to enforce the Acts even more energetically. The seizures, a few days since, of goods of anti-vaccinators, which had been distrained upon by the Board for non-payment of fines, were valued at upwards of £200. The total number of warrants was between fifty and sixty. On the occasion of the public sale there was an anti-vaccination demonstration, but it was deprived of much of its intended effect by the active interposition of the police.

*Fines for Milk Adulteration.*—That the fines for milk adulteration are paid by an association, and that the fact should be widely known, was the subject of some remarks at the last meeting of the District Board of Work for St. Saviour's, Borough.

*The Judge's Lodgings during the Assizes, Northampton.*—Baron Huddleston at the recent assizes strongly complained of the bad accommodation provided for Mr. Justice Smith and himself. The sanitary arrangements of their lodgings he denounced as execrable. The drainage was so pestiferous he could scarcely remain in his room. He had given instruction to engage other lodgings unless this state of things were remedied, as it was not safe to remain in the present apartments.

*A Sanitary Precaution.*—In view of a small-pox epidemic in Birmingham, the Board of Guardians have resolved to restrict the visits to inmates of the workhouse to one day a month.

*New Baths for North London.*—A building called the Finsbury-park Baths has just been opened. It is situated in Fonthill-road, near Finsbury-park railway-station, and covers more than a quarter of an acre of ground. There is a large gentlemen's swimming bath, besides twenty-two gentlemen's first-class and fourteen second-class private baths. The population of the parish in 1881 was 282,628, and the institution will, no doubt, be considered a great boon by North London residents.

*Recalcitrant.*—The Medway Board of Guardians have refused to accept the suggestion of the Local Government Board that they should erect a new hospital at a cost of £25,000, and the architect of the central authority has declined to sanction the plans of the Guardians for enlarging the present hospital.

*Sewerage of Hendon.*—A Local Government Board inspector has held an inquiry in reference to an application of the Hendon Local Board for sanction to borrow £62,000 for sewerage works and for sewage disposal. The area which will be drained by the scheme is 8382 acres, and includes the whole of the parish of Hendon, which is almost the largest in Middlesex.

*Sarcastic.*—"Well," remarked a young M.D., "I suppose the next thing will be to hunt out a good situation, and then wait for something to do, like Patience on a monument." "Yes," said a bystander, "and it won't be long after you do begin before the monument will be on the patients."

*West Hartlepool.*—A public park, comprising seventeen acres, subscribed for by the inhabitants of the town and others, has just been opened. It is dedicated to the memory of the late Mr. Ralph Ward Jackson, founder of the town and port. Mr. Jackson was its first member of Parliament, elected in 1868.

*Public-house Property, Oldham.*—The remarkable depreciation in the value of public-houses in this town—mainly caused, it is stated, by the spread of clubs—has led the Local Assessment Committee to re-value the whole of this property. The publicans themselves initiated the necessary steps for this re-valuation.

*Constantinople.*—In consequence of the unusually crowded state of the hospitals at Smyrna and Beyrout, the Sanitary Council has resolved that the Porte should request the Egyptian Government to prevent further departures from Egypt for the Ottoman littoral, as persons arriving at Turkish ports from that country would not be allowed to land. The Council also decided to despatch an extraordinary commission to Beyrout and Smyrna with hospital appliances, tents, and medicines, in order to complete the temporary buildings, and to select an island upon which a third hospital might be established.

*Panic.*—The Home Secretary has stated that he has a draft Bill prepared to extend the scope of the Buildings Act (now applicable only to the metropolis) to the provinces, with amendments requisite for diminishing the dangers of panic in crowded assemblies.

*Diseased Meat.*—A veterinary surgeon, a licensed victualler, and a butcher, have been committed for trial, by the magistrates at Stratford-on-Avon, on a charge of perjury. The defendants were witnesses in a case (noticed in these pages) against a Town Councillor, charged with being in possession of diseased meat, and upon their evidence, which is alleged to have been false, the latter was convicted.

*Juvenile Smoking, United States.*—In New Jersey the State Senate, with only two dissentients, have passed a Bill which forbids the sale of cigarettes, and of tobacco—even for the purpose of chewing—to all minors under the age of sixteen years.

*The Sandgate Convalescent Home.*—Subscribers of a guinea annually have the privilege of recommending one patient yearly, and a donor of ten guineas, paid in one sum, has the advantage of recommending one patient a year. An ordinary applicant, or patient, will be accommodated with three weeks' residence in the Home at the small cost of £2 1s., this sum also including the railway fare to and fro. The Home is well conducted.

COMMUNICATIONS have been received from—  
Mr. T. M. STONE, London; Mr. JOHN SPEAR, Local Government Board, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE NATIVE GUANO COMPANY, London; Mr. SHIRLEY F. MURPHY, London; Mr. J. CHATTO, London; Mr. BLACKETT, London; THE SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; Mr. MUNRO SCOTT, London; Mr. CHARLES H. WADE, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. J. W. MOORE, Dublin; Mr. T. M. STONE, Wimbledon; Sir JOSEPH FAYBER, M.D., London; Dr. WOLFE, Glasgow; Dr. ELLISTON, Ipswich; THE TREASURER OF THE BRITISH MEDICAL BENEVOLENT FUND, London; Mr. EDMUND OWEN, London.

BOOKS, ETC., RECEIVED—  
London Water-Supply, 1882, by W. Crookes, F.R.S., W. Odling, F.R.S., and C. Meymott Tidy, M.D.—Reports of Trials for Murder by Poisoning, by G. Latham Browne and C. G. Stewart—Enteric Fever, by Francis H. Welch, F.R.C.S.—Note sur Vingt-deux Opérations de Goitre, par Jaques-Louis Reverdin et Auguste Reverdin—History of Rome, by Victor Duruy—Æsthetic Sanitation, by W. White, F.S.A.—Knapsack Handbook, etc., by William White, A.C., F.S.A., etc.—Report on the Sanitary Condition of the Hackney District for the Year 1882, by John W. Tripe, M.D.—Balneologische Studien über Wiesbaden, von Dr. Emil Pfeiffer und von Dr. E. Seitz—The Filaria Sanguinis Hominis, by Patrick Manson, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—  
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Physician and Surgeon—Philadelphia Medical Times—American Journal of Medical Sciences—Archives de Neurologie—Revue des Sciences Médicales—Journal of the Vigilance Association—Canada Lancet—North Carolina Medical Journal—Scotsman, July 17—Journal of the British Dental Association—Ciencias Medicas—New York Medical Journal—Canadian Practitioner.

## APPOINTMENTS FOR THE WEEK.

### July 21. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

### 23. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

### 24. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Dr. Garson, "On the Comparative Anatomy of the Integumentary, Respiratory, and Circulatory Systems of the Vertebrata."

### 25. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

### 26. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

### 27. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.  
QUEKETT MICROSCOPICAL CLUB (University College, Gower-street), 8 p.m. Annual General Meeting.



## CLINICAL REMARKS ON PURPURA: DEATH FROM CEREBRAL HÆMORRHAGE.

By J. S. BRISTOWE, M.D., F.R.S.

It is not often that purpura proves fatal by hæmorrhage into the substance of the brain; and my main object in the present lecture is to call attention to two such cases which have happened within my own experience. Before narrating them, however, I propose making a few observations with regard to this disease.

Disseminated extravasations beneath the skin, in the solid organs and tissues, and at the serous and mucous surfaces, attended, maybe, with more or less abundant loss of blood, are not infrequent in many different maladies in which either there is profound constitutional disorder, or some serious hindrance exists to the passage of blood along the veins. Among such maladies may be enumerated certain of the specific fevers (as small-pox and typhus), rheumatism, scurvy, leucocythæmia, so-called "pernicious anæmia," obstructive diseases of the heart, and affections of the liver. But in all these cases, even though occasionally in some of them the hæmorrhagic phenomena may exactly resemble those of purpura, the fact that the hæmorrhage constitutes only a subordinate symptom of some well-recognised grave disorder separates them absolutely from the disease to which the name of purpura by general consent is given.

True purpura is a so-called "idiopathic" disease, the cause of which is as obscure as are the causes of leucocythæmia and "pernicious" anæmia. It attacks persons of all ages, from early childhood to the decline of life, males and females in equal proportion, those who are apparently in good health, as well as such as are already ailing; and, so far as I know, its appearance is independent of local sanitary conditions and dietetic errors. It has, moreover, a tendency to recur, and I have notes of several cases in which children have been brought to me at intervals of some months, suffering from two or even three recurrences.

Purpura is commonly divided into two varieties, namely, purpura simplex, and purpura hæmorrhagica: the former being characterised by the appearance, in successive crops, of numerous petechial spots in the skin and visible mucous surfaces, and attended with little or no manifest constitutional disturbance; the latter being characterised by the occurrence not only of petechiæ in these situations, but by more abundant extravasations of blood into the connective tissue, and substance of solid organs, by more or less copious hæmorrhage from the mucous membranes, and, further, by progressive anæmia and debility. It must be admitted that typical cases of simple purpura, which are common, are for the most part unattended with danger, and run a favourable course; and that typical cases of the hæmorrhagic form, which are comparatively rare, are attended with grave symptoms and are apt to prove fatal; and that there is some clinical justification, therefore, for placing them in separate groups. But it should never be forgotten, that the distinction is a purely artificial one; that true purpura in all its forms is (so far as we know) the same disease; that the simple and hæmorrhagic varieties are linked together by the frequent occurrence of cases of intermediate severity; and that although the prognosis of a case of purpura simplex is generally favourable, there is always the possibility that it may assume grave proportions, that it may be attended with anæmia and debility, and prove fatal by hæmorrhage. An attack of purpura, therefore, however mild it may seem to be, can never be regarded as wholly free from risk.

Apart from the hæmorrhages beneath the skin and visible mucous membranes, and the more or less abundant bleedings that take place from time to time from the nose, mouth, lungs, stomach, bowels, or genito-urinary organs, the symptoms of purpura hæmorrhagica are not specific, and to a large extent are referable to the losses of blood which the patient experiences. They are, mainly, progressive debility and

anæmia, associated with irritability of temper, headache, pains in the limbs, shortness of breath, feebleness of the heart's action, loss of appetite, and occasional slight febrile temperature: notwithstanding which, however, patients will often continue to perform their ordinary duties throughout the greater part or even the whole course of their illness. The duration of purpura hæmorrhagica is generally some weeks, and its event is for the most part favourable; but death, which is generally due directly to hæmorrhage, or to the debility which repeated hæmorrhages induce, may occur at any time in the course of the disease.

Of the pathology of purpura as little, I believe, is known as of its causation. Neither the blood nor the bloodvessels give distinct evidences of either chemical or structural change; yet it is impossible that numerous and abundant hæmorrhages should take place unless there be something abnormal in one or other or both of these constituents of the organism. That the extravasations depend on laceration of vessels there can be no reasonable doubt; and, indeed, the situation and character of the hæmorrhages into the brain seem to accord exactly with those of cerebral hæmorrhage in ordinary apoplexy or from injury. Such laceration must depend either on weakening of the parietes of the vessels, making them apt to rupture, or on undue pressure from within. There is no obstruction, however, in the right side of the heart, and no increased arterial tension, to justify the latter explanation. The former, therefore, is probably the correct one; and it may be surmised that the enfeeblement, laceration, and resulting hæmorrhages are the consequences of the ordinary causes of these conditions, namely, obstruction of the smaller arteries of the districts in which bleeding occurs. Thrombosis or embolism might explain this obstruction; but as there is no obvious source of embolism, it seems probable that the proximate cause of obstruction is thrombosis due to some morbid condition of the blood which renders it liable to coagulate.

The treatment of purpura is as unsatisfactory as are its causation and pathology. Antiscorbutic remedies have been largely employed in consequence of a belief that prevails (but seems unfounded) that the disease has a close causal relation to scurvy. Other remedies are tonics and astringents; and, though I acknowledge some scepticism as to their special efficacy, it is in such medicines that, in the present state of our knowledge, we are compelled to trust mainly. Good and wholesome diet and healthy surroundings are, of course, important aids.

The two cases which I subjoin are typical examples of purpura hæmorrhagica, with the additional important feature to which I have adverted, namely, that death was due to hæmorrhage into the substance of the cerebrum. In the latter of the two cases the hæmorrhage was sudden, and caused death in the course of a few hours; in the former the symptoms were comparatively slowly developed, and the bleeding therefore was probably gradual. The symptoms of the cerebral lesion were well marked. It is noteworthy that in one of the cases the patient became blind of one eye from extravasation into it a few days before death. I may here mention that Sir Thomas Watson, in his Lectures, records a case of purpura in which also death was due to cerebral hæmorrhage.

### *Case 1.—Purpura—Effusion of Blood into the Brain—Death.*

J. S., a fitter, thirty-three years of age, admitted under my care on November 9, 1878. He had an attack of acute rheumatism nine years previously, and a second attack five years later; since which he has suffered from short breath.

About four months previous to admission he began to ail, and he has been out of health ever since; but he did his work as usual up to the morning of the day on which he came to the hospital. He suffered during the whole of this period from weakness, rheumatic pains in the limbs, and shooting pains in the head, dimness of sight and giddiness, morning sickness, and irritability of temper. Also he had frequent attacks of epistaxis; on one occasion he vomited a large quantity of blood; and dark purplish spots came out from time to time in more or less abundance. He had a fit of shivering the night before admission; and the next morning, after breakfast, while standing at work, he was suddenly attacked with giddiness, loss of sight, and faintness, and had to sit down. Not recovering, he was brought to the hospital.

When first seen he was pale and faint, with surface cold



and teeth chattering, unable to stand, and complaining of giddiness and pain in the head; pulse small and weak. Half an hour later he vomited, and became partially unconscious, but when roused he answered sensibly; the pain in his head also was more severe, and from time to time he struggled and threw his arms about. Pupils equal, acting readily to light; no paralysis. Limbs and trunk covered with purpuric spots of different ages, and varying from the size of a pin's head to that of a threepenny-piece. Tongue moist, and thinly coated with a white fur. Teeth black and decayed; gums bleeding slightly. Temperature 99°. The heart was somewhat enlarged, with a feeble impulse; its action was irregular, and a faint systolic murmur was audible at the apex. Pulse 72. No discoverable affection of the lungs or abdominal viscera. Bowels have been regular. Urine, specific gravity 1015; no albumen.

At 9 p.m. he was still in a semi-comatose condition, and breathing noisily; but he could be roused, when he answered questions irritably. He tossed about in bed, and occasionally cried out as if in pain. There was distinct loss of power in left arm and leg, lower part of left side of face, and left side of tongue. Pulse 66, full, irregular. Temperature 100°. Head to be shaved, and an ice-bag to be applied. A black draught to be given at once.

November 10.—He remained in the same condition all through the night. One loose motion. Tongue dry and brown. Pulse 84, full and strong; temperature 98.2°. Several large bruise-like patches have appeared on arms and legs. At 2 p.m. I made the following note:—"Is drowsy, but can be roused. Complaints of pain across forehead and eyes. Rambles; wants to know if I am going to the night-school; and also says that he is in a consumption, adding, 'The kippers are—the fishes are.' Left arm and leg paralysed and limp. No reflex movements obtainable in left leg, but right leg drawn up when left foot is tickled. Eyes closed; pupils small, equal; no squint. Tongue coated. Respirations tranquil." Temperature 98°. At 9 p.m. he was very noisy, throwing the bedclothes off, and trying to get out of bed. He still complained of his head. Pupils contracted; right rather smaller than left. Pulse 60, full; temperature 98°. A third of a grain of hydrochlorate of morphia was administered subcutaneously.

11th.—After the injection he sank into a deep sleep, which gradually passed into coma. This morning he is quite unconscious and still. Pupils small; conjunctivæ insensible. Breathing stertorous. Pulse 132. At 3.15 he was quite insensible, lying on left side. Face flushed; skin moist; pupils (especially right) much dilated; subsultus tendinum. Respirations 60; pulse 152. 9 p.m.: Lying on back, wholly unconscious; perspiring. Respirations 60, very noisy; pulse 164. Twitchings of left arm and leg. He passed water into the bed.

He died a little after one on the morning of the 12th. The temperature rose gradually in the course of the last sixteen hours of his life. It was 100° at 8.40 a.m., 102.1° at 1 p.m., 103.4° at 4 p.m., 103.6° at 6 p.m., and also 103.6° about half an hour after death.

*Autopsy.*—On opening the skull, the dura mater appeared somewhat congested, and many patches of extravasated blood were found on the surface of the pia mater, especially on the left side. On examining the brain, the greater part of the right occipital and temporo-sphenoidal lobes was found to be broken down into a large irregular cavity, filled with coagulated blood and brain *débris*. This cavity communicated with the posterior cornu of the lateral ventricle, which also contained dark coagula. Numerous punctiform hæmorrhages were found studding the surface of the left optic thalamus and the surface of the posterior cornu. The brain was otherwise normal. There was no atheroma or plugging of the arteries. Lungs congested and oedematous. Heart enlarged, especially left ventricle; decolourised clots on right side; aortic valve competent, but presenting a few small vegetations on ventricular aspect; mitral valve healthy; small ecchymoses on auricular surface. Liver enlarged, congested, somewhat fatty. Numerous punctiform extravasations on surface of kidneys, which were otherwise healthy. Patches of ecchymosis also in walls of small intestine.

*Case 2.—Purpura—Effusion of Blood into the Brain—Death.*

M. J. B., a single woman, a cook, aged fifty-seven, was admitted under my care on November 27, 1882.

About thirty years ago she had an attack of hæmatemesis,

and ten years later experienced a slight recurrence. The catamenia have always been scanty and irregular.

Her present illness began on the 14th, when she brought up a large quantity of black clotted blood. She has continued to vomit blood from time to time ever since. Before long she observed that she was passing blood with her water, and that she had pain in micturition. She has also had considerable menorrhagia during the same period, and large bruise-like patches have appeared over her trunk and extremities.

The patient was brought to the hospital in the evening from Enfield, and on admission was much exhausted. She was a pallid, anxious-looking woman, and complained of pain and tenderness in the abdomen and throat. Tongue clean, but fissured; gums not spongy. Bowels regular; pulse 108, small and weak. Subcutaneous extravasations of blood, of largish size, irregular form, and varying in colour from dark-red to yellowish or greenish stains, were observed in the arms and legs; few or none were present in the trunk, and there were no extravasations about the mucous membrane of the mouth. The heart and lungs presented nothing abnormal; and, beyond the presence of pain and tenderness, the abdomen also and its contents seemed free from disease. The urine contained blood, but it was not clearly ascertained if the blood came from the bladder or vagina. Temperature 100.2°.

The next day, the 28th, there was no particular change. Indeed, though weak, she seemed to be going on well. In the morning the temperature was 99.6°, in the evening it was 101.8°.

Between 3 and 4 a.m. on the 29th she started up in bed and cried out. When the nurse went to her, she was sensible but speechless, and waving her right arm round and round. She made noises in the throat as though she were trying to speak. She soon became comatose, and died in this condition at 9 a.m.

It was subsequently ascertained that she had suddenly lost the sight of the left eye a few days before admission. She did not, however, draw attention to the state of her eye while in the hospital.

The *Autopsy* was made next day. Rigor mortis well marked; bruise-like markings on trunk and limbs well shown. Chest: Heart and pericardium healthy, except that there were numerous petechial spots beneath the visceral pericardium. The lungs were oedematous, but there were no extravasations of blood either in them or in the pleuræ. Abdomen: Peritoneum healthy. Liver healthy and pale. Spleen large, with thickened adherent capsule. A few small hæmorrhages into and beneath mucous membrane of stomach. Intestines healthy. The kidneys (especially the right) were freely movable beneath the parietal peritoneum; their substance was healthy; in the pelves and calyces of both organs the mucous membrane was abundantly infiltrated with blood. In the bladder also (which was otherwise healthy) there were two large patches in which blood had been extravasated into the substance of the mucous membrane, and there were numerous petechial spots. Uterine organs and ovaries healthy. Head: Over left hemisphere of brain, in front of the fissure of Rolando, there was considerable presence of blood in the subarachnoid tissue. On dissecting the brain a large quantity of dark, imperfectly clotted blood was found extravasated into the left centrum ovale. This reached to the convex surface of the brain above, and opened into the lateral ventricle below. On the confines of the main extravasation numerous small hæmorrhages were visible, seeming to show that the blood had escaped from a number of small vessels rather than from one of large size. There was also a large effusion of blood into the left retina.

**THE PARIS NIGHT-SERVICE.**—In M. Passant's report on the night-service for the quarter ending June 30, he states that the total number of visits paid was 1598, being 80 more than those for the same quarter of 1882. Of these 1598 visits, 540 (34 per cent.) were paid to men, 840 (52 per cent.) to women, and 218 (14 per cent.) to children under three years of age. The mean number of visits per night was 17.55 per cent. In 59 instances the patient was dead before the arrival of the medical visitor. About a fifth of the whole number of visits (307) were paid to women in labour, or suffering from uterine hæmorrhage or metritis.



## REMARKS

ON EXPLORATION OF THE BLADDER,  
AND THE TREATMENT OF CYSTITIS  
BY MEDIAN URETHROTOMY.

By HENRY MORRIS, M.A., F.R.C.S.,

Surgeon to, and Lecturer on Surgery at, the Middlesex Hospital.

THE subject of the removal of bladder tumours and the treatment of some obstinate forms of bladder disease in the male by means of a median perineal incision of the urethra has of late been brought prominently before the profession by the discussions at the Royal Medical and Chirurgical Society.

There can be little doubt that this mode of treatment has often previously been in the minds of surgeons, but, owing to the want of any authoritative sanction, it either has not been recommended to, or not accepted by, patients.

No doubt too on this account, not only physicians but surgeons also have hesitated to act upon the suggestion when the operation has been proposed either to discover the cause of hæmaturia or to relieve the symptoms of intense bladder-irritation and spasm.

Sir Henry Thompson has therefore, I venture to think, done a great service by his recent advocacy and successful employment of this operation; for it is to be expected that in future there will be less difficulty than heretofore in carrying it into practice in suitable cases.

I have on several occasions during the last six or seven years proposed to explore the bladder for the purpose of diagnosis as well as of relief, but always, until lately, without having my advice adopted.

I will refer to two instances. In 1876 a man was under my care, suffering from intense vesical irritation, enlarged prostate, and a deposit of phosphates near the neck of his bladder. The diagnosis was that a tumour near the neck of the bladder was coated with phosphatic concretion; and I wished to make an exploratory incision, which I thought would relieve his bladder-symptoms, if it did not permit of the removal of their cause. My proposal was rejected; and, having no experience of its effects, I could not guarantee that the operation would for certain give relief. The man died, and at the post-mortem examination there was found cancer of the prostate, which had ulcerated into the bladder, and caused the deposition of calculous matter in its neighbourhood. I made a note at the time on this case to this effect: "Query.—Though the disease could not have been removed, ought not a median incision to have been made for the sake of relieving his sufferings?"

More recently, viz., in June, 1881, Edward B., a butler, aged thirty-five, was an in-patient at the Middlesex Hospital, suffering from intermittent hæmaturia, with great irritation at the neck of the bladder. He micturated every one and a half or two hours, day and night, and for eleven months had been passing blood and clots with his water—chiefly at the end of micturition, and especially on going to stool. When first attacked, he saw a surgeon, who sounded him, and said he had no stone, but was suffering from "catarrh of the neck of the bladder"; after this he consulted a physician. At the end of 1880, as he informed us, he was under the care of Sir Henry Thompson for two months, whose treatment stayed the hæmaturia, though the frequent desire to micturate continued. Sir Henry sounded him, but found no stone, and recommended him to go into a hospital for the purpose of obtaining complete rest. He came under my care, and I concluded that he had villous growth in the bladder, some fringe of which I thought was probably floated on in the stream of urine towards the urethra, and becoming nipped by the sphincter, caused the irritation from which he suffered. As long as he remained quiet in bed the hæmaturia ceased, but after being up for a few days it returned.

He left the hospital on July 28, 1881, and for some months continued as an out-patient. Finding remedies of no permanent use, I proposed to explore his bladder through an incision of his urethra in the raphe of the perineum. This he refused to allow, and forthwith discontinued his visits. Here again I had, of course, to tell the patient that I could not guarantee to cure his hæmaturia by the operation, and

as he was at this time experiencing little or no pain the operation was not indicated as a measure of relief from suffering.

The next I heard of him was on April 11, 1882, the occasion of the discussion on Sir Henry Thompson's paper at the Medical and Chirurgical Society on the successful removal of a tumour of the male bladder through a perineal section of the urethra. I was then told by one of the surgeons of a neighbouring hospital that E. B. was under his care, I having frightened him away by my proposal to operate—a proposal for an exploratory operation, which, if I inferred rightly, did not recommend itself to my informant. Yet I do not doubt that the operation was the best thing for this patient, as it afforded a possibility, not to say a probability, that the cause of the hæmaturia might have been satisfactorily removed.

In a short communication, which I sent in to the Secretary of the Medical and Chirurgical Society in May, 1882, on a case in which I removed a prostatic calculus by median urethrotomy, I made some remarks on the operation as a means of relieving painful and frequent micturition in tubercular and other chronic forms of cystitis. Want of time, I believe, did not permit of my paper being read, and it was returned to me with a very courteous suggestion that I should enlarge my remarks upon the latter subject so as to bring the question definitely forward for discussion on another occasion. But, instead, my case was published in the *Medical Times and Gazette* of August 26, 1882 (page 245), and the method of treating and exploring bladder diseases by perineal section of the urethra has been since fully brought before the Society by Sir Henry Thompson.

I propose now, however, to relate the particulars of four other cases (a) in which I have done the operation with great benefit, and in two of the cases with the effect of saving life. My method of operating has been to make an incision a little over an inch long, about an inch or less in front of the anus, upon a staff with a median groove. Until the knife has reached the staff and divided the membranous urethra, my left index-finger is kept upon the apex of the prostate felt through the rectum, as in Cock's operation: the rectum having been well cleared out previously by an aperient followed by an enema. Then, having withdrawn the finger from the rectum and washed it in carbolic water, I introduce into the bladder a long director or probe upon the groove of the staff. The staff is next withdrawn, and the left index-finger, guided by the director, finds its way into the bladder; or attempts to do so, for unless the prostate is partly divided, or great force is used so as to tear it, it is not *always* possible to make the finger enter the bladder.

In Cases 3 and 4 I met with the difficulty I referred to in the discussion at the Medical and Chirurgical Society on January 23, 1883—namely, I could not reach even the neck of the bladder with my finger, much less explore the whole surface of the bladder mucous membrane. In Case 4 it was subsequently needful to divide part of the prostate in order to extract the calculus, and after doing so I was able with some stretching of the parts to get my finger well into the cavity of the bladder.

It would seem to me, therefore, that in a certain proportion of cases where the prostate is enlarged, or the person is fat and the perineum deep, it will be found absolutely necessary to divide more or less of the prostatic as well as the membranous urethra in order to make a digital examination of the interior surface of the bladder. I am also led to think that the partial division of the prostatic urethra, whilst it adds but little to the danger, is very desirable when the operation is done with the object of putting the bladder into a state of rest. In those cases in which I have divided it the patient remained for a much longer time without requiring the catheter or tube to keep the wound from closing, than is the case when the membranous urethra alone is cut. The same thing was illustrated by the first of the cases now recorded; for though the incision was limited, yet the prostate was in great part destroyed by suppuration, and the urine continued to flow through the wound for six weeks without the wound showing any tendency to heal. This was a great advantage, as I feared closure of the wound might be attended with the return of the symptoms.

(a) Two of the cases appear this week under Hospital Practice at page 92; the other two will appear next week.



It certainly appears that in some cases, even without dividing the prostatic urethra along a part of its extent, the same beneficial and curative effects can be obtained in obstinate cystitis and irritable bladder by median urethrotomy as were obtained by Sir William Fergusson and Mr. McCraith of Smyrna. Each of these gentlemen, as Mr. Royes Bell has recently reminded us, divided in the median line not only the membranous urethra, but the prostate, and the neck of the bladder freely, as well. In Mr. McCraith's case(b) the incision was free enough to allow of two fingers entering the bladder *for the purpose of exploring its interior*.

Sir William Fergusson(c) considered that the *modus operandi* of the operation, in his case, was through the division of the nerve plexus at the neck of the bladder; but it seems more probable that the good which the operation effects in cystitis is by inducing a state of rest to the bladder by the free draining away from it of the decomposing urine which is the source of irritation; and if this end can be gained by a milder operation than the division of the neck of the bladder, and therefore without trespassing upon the pelvic cellular tissue, so much the better for the patients. Experience now says it can, and therefore it is to be expected that the operation of median urethrotomy—which, so far as the parts actually cut are concerned, is a more fitting name than median cystotomy—will be more frequently practised. Mr. Teevan, I believe, has advocated the median operation; but it is a matter of surprise that, with the experience of Sir William Fergusson's and Mr. McCraith's cases before the profession, and the reputed success of M. Bouchardat in the beginning of the century, surgeons have been so long before recognising and adopting what gives promise of being—indeed, is amply proved to be—such a very valuable mode of treatment, and means of diagnosis.

**MEDICAL PRACTITIONERS IN NEW YORK.**—Some special inquiries having been made of us regarding the number of these, we would say that the total number of physicians in New York State in 1880, according to the census, was 9272. This number has now undoubtedly swollen to 10,000. In what, for distinction's sake, may be called the "Physician's Medical Register" for 1882-83, a list of only 2684 names is given, which represents the regularly educated physician in affiliation with regular medical societies. The remainder are composed of homœopaths (probably 500 or 600), eclectics, and nondescripts.—*New York Med. Record*, July 7.

**HEART-FAILURE IN ACUTE INFECTIOUS DISEASE.**—Dr. Beverley Johnson read a paper to the Practitioners' Society, New York, upon this subject, to which he said that he had long paid attention. Its title is, "On Rapid or Sudden Heart-Failure in Acute Infectious Disease, notably in Diphtheria and Typhoid Fever." The following are the therapeutic indications:—"1. All unnecessary fatigue should be absolutely avoided during the duration of even mild cases of diphtheria and typhoid fever. Patients should not be permitted to raise themselves in bed, to sit up but for a very short while on any particular occasion, and then only when convalescence is well advanced. They should not be allowed to feed themselves, or to perform any act which causes outlay of physical energy, and which can be avoided by judicious nursing. 2. Cardiac tonics should be employed in *very moderate doses* from a relatively early stage of the disease, and particularly if there be even slight manifestation of cardiac failure, as shown by inequality or irregularity in force or rhythm of cardiac beats, or of the radial pulse, or, indeed, by attacks in any manner resembling those to which I have referred. 3. I look upon black coffee as a very valuable stimulant, and particularly urge its employment early in the disease; and I incline strongly to the use of liquid nutriment in very concentrated forms. In regard to one drug so largely used in the treatment of asthenic forms of acute disease, I am disposed to enter a word of warning, and it is about the use of large doses of the tincture of chloride of iron. This is one of the most powerful styptics and astringents, and it is presumed to exercise these properties on the blood if it be absorbed. Now, to what extent is it responsible for the formation of intra-cardiac fibrinous coagula, particularly in diphtheria?"—*New York Med. Record*, May 5.

(b) *Medical Times and Gazette*, 1867, vol. i., page 652. (c) *Lancet*, 1855.

PRACTICAL NOTES ON  
THE ORDINARY DISEASES OF INDIA,  
ESPECIALLY THOSE PREVALENT IN BENGAL.  
By NORMAN CHEVERS, C.I.E., M.D.

(Continued from page 65.)

MALARIAL CACHEXIA—Continued.

SPLENIC ABSCESS.

SUPPURATION leading to the formation of distinct abscess of the spleen, apart from pyæmic infarction, is a rare condition in India. Preparations Nos. 554 and 557 in the Calcutta Medical College Museum appear to illustrate this lesion. Dr. A. A. Mantell narrates(a) a case in which a very large splenic abscess was evacuated through the left lung; the man, a European, aged sixty-two, had been long employed in India as a pilot and as the superintendent of a lighthouse on the Cuttack coast. A history of fever is not clearly made out; but, as there was an abscess in the throat, and another in the right kidney as large as a hen's egg, it is not improbable that the disease was tubercular. Dr. Verchere reported(b) the case of a man who had been ill for a considerable time at Loodiana with fever. He complained of great pain in the left side, and the spleen was acutely tender and "enlarged to the size of a large fish." It was leeches and blistered. A few days later fluctuation could be felt in the spleen, and the pain was intense; poultices were applied, and, as soon as an indistinct pointing appeared, the abscess was tapped with a hydrocele trocar, the canula being left in for some days. He made a perfect recovery, and went to duty without being ill or inconvenienced. The general health improved much, and the man, who had been emaciated, feeble, and livid-grey-complexioned, soon made flesh and assumed a healthy appearance. At nearly the same time the Civil Surgeon, Bhawulpore State, recorded(c) the very important case of a young native man who had suffered from fever and enlarged spleen about ten months previously. The spleen was acutely tender; it extended beyond the mesial line of the abdomen and downwards nearly to the crest of the ilium. The entire left chest was evidently full of fluid. An opening was made in the left iliac region; only two ounces and a half of clear pus escaped, and the distressing symptoms were not relieved. There being pointing above the seventh rib, a trocar was introduced, and one pound thirteen ounces of healthy pus were drawn off, with marked relief to the distended chest. Next day, one pound four ounces more were removed through this aperture, which made a decided impression on the bulk of the spleen. The thoracic and abdominal cavities were, therefore, in communication. Inoffensive pus continued to flow, to the amount of six pounds fifteen ounces, during the following fourteen days, when the patient was taken away by his friends—a most common termination (as far as we are concerned) to our most interesting cases in India. The compressed lung rapidly expanded, and the heart's sounds were heard to the left of the sternum. When the patient was last seen he was free from suffering, respiration was tranquil, air was heard all over the left lung, the spleen was much reduced, there was no hectic, and he was making flesh.

Dr. Chandra has given(d) a case of abscess of the spleen which was successfully treated by free drainage.

Dr. W. H. Bull has reported in the *Lancet*(e) the very interesting case of a groom, aged forty-two, who had served for nine years as a soldier in India, and had suffered there from hepatitis and from several attacks of fever. Twelve years after his return home he died from repeated attacks of hæmatemesis, caused by perforation of the stomach involving a medium-sized branch of the splenic artery. This mischief was caused by an abscess, apparently splenic, not larger than a small orange. The lower part of the spleen was "entirely disintegrated and in a state of ulceration, forming the outer boundary of the abscess wall."

Specimen No. 556 in the Medical College Museum is one of *Gangrene of the Spleen* in a European who had been suffering from intermittent fever.

(a) *Indian Annals of Medical Science*, No. xviii. for 1865.

(b) *Indian Medical Gazette*, June, 1839.

(c) *Ibid.*, October 1, 1839.

(d) *Ibid.*, January 1, 1850.

(e) *For August 19, 1832, page 261.*



I never saw gangrene of the spleen in practice, but we read of a disease which, in 1831, was called the *Siberian Epidemic*, or "Splenitis Gangrenosa," which appears to have been a pernicious fever, often ending in "Symptoms of putridity, severe pain in the side, meteorisms, excessive thirst, constant vomiting, yellowness of the skin, weak pulse, cramps, and coldness of the extremities." No bowel disorder. In a patient who died on the third day, there were evidences of low peritonitis. The spleen was much enlarged and softened, was full of dark blood, and presented, on its under surface, a large gangrenous spot. (f)

We have few older or more general observations in medicine than that blood dyscrasia and spleen disease have always been present in all severe types of fever: the more malignant the fever, the greater the dyscrasia and the more affected the spleen. It was shown, long ago, by Thomas Wilkinson King, that where, from any cause, blood is prevented from passing readily out of the abdominal veins, the spleen acts as a reservoir, moderating the venous congestion. In Twining's time, and subsequently, much was said about internal congestion leading to inflammation and interstitial deposits, especially abdominal, in grave Indian fevers:—congestion of the veins of the mesentery causing inflammatory effusion between its layers and intestinal hæmorrhage, and again congestion, eventually tending to inflammation of the spleen and liver and to permanent dilatation of the portal vessels. It was the existence of such states, or the belief that they existed, which sent fever-broken, anæmic, sallow, emaciated old Indians, who had just escaped death by bleeding and calomel abroad, to go through a still more trying ordeal of drastic purgative treatment in the chilly, foggy climate of Cheltenham, and which led a great Indian physician, ten years ago, to say to me, in speaking of our means of obviating the congestive effects of English cold upon the damaged organs of old Indians—"Emulge! Emulge! Emulge!" I do not deny that, as Indian fevers now are, and as Indian treatment now stands, something of such congestion of the viscera thus resulting is observable, but there is not much of it. Splenic disease is, as we have seen, common, especially among the native poor, and there is some hepatic disease, demonstrably of malarious origin; but I am rather content to remain ignorant of the precise causation of these lesions of the solid abdominal viscera than to cling to the old plausible but unproved theory that they resulted from congestion due to arrest of faulty blood in the portal veins, which congestion led to inflammation and enlargement of the spleen and liver. Doubtless Twining was right in considering that, in the grave Remittent Fever of his day, unchecked congestion gave rise to low inflammation and interstitial effusions; but let us ask, What share had the bleeding and salivation in bringing about this stasis of impoverished blood? It must be repeated that, when quinine has fair play, we do not expect to find this congestion.

We see something, but not much, of such passive congestion in neglected cases of Remittent among natives. I think that we have two plain facts before us.

1. Faulty blood causes splenic lesions, as in Scurvy, and as shown by the cases of Mutlah Fever which I have given, where about five days' fever, in strong mariners just arrived in port, brought the spleen down.

2. Disease of the Spleen produces various lesions in the corpuscles, fibrin, and albumen of the blood, in the causation of which lesions coincident disease of the Liver and Kidneys probably has a great deal to do. I have italicised these words because it is certain that, whenever one of the three great solid viscera of the abdomen—Spleen, Liver, Kidneys—is organically diseased, the other two are more or less unhealthy—a fact never to be lost sight of in treatment.

If it were needful to theorise, in the present state of our knowledge, upon the causation of splenic hypertrophy, I would, putting aside the idea of congestive tumefaction and effusion due to ague and blood dyscrasia, insist upon the close resemblance in many leading points between the process of hypertrophic increment in a *splen ingens* or a leucocythæmic spleen, and the lymphatic mischief which results in scrotal tumour or Cochin leg.

I think we may reasonably look to the helminthologists who have given us an insight into the natural history of *Filaria sanguinis hominis*, and to the demonstrators of

*Bacillus anthracis* and *B. malariae*, for inquiries as to whether malarious splenic disease is not characterised by the presence in the affected organ of some animal or vegetable parasite.

It is to be apprehended that those who maintain that paludal fever depends upon the presence of a microphyte in the system assume the existence of that organism wherever such fever prevails. Again, it has not been proved that *Filaria sanguinis* is a native of temperate climates; still, even in England, the host of that parasite, the mosquito, makes its appearance in exceptionally hot weather, and its congener, the gnat, is always with us in due season, especially in marshy places. Cats which feed upon cockchafer and black beetles are always ill-conditioned and short-lived. In a part of what was formerly Lambeth Marsh, where my father and I suffered from acute dysentery, we had a *blatta*-devouring cat which died suddenly. I found the bronchial tubes so crammed with *Filaria bronchiales* as to cause surprise that the process of suffocation only occupied a single night.

Sir Joseph Fayrer gives a most important case, in which a young Englishman, returned from India in a state of extreme splenic cachexia and most advanced anæmia, with a spleen descending almost to the pelvis, was becoming much improved under quinine, iron, and good nourishment. "One day, in spite of earnest warnings to the contrary, he got up, walked to the window, and tried to raise or shut it. He got back to bed exhausted and breathless, and died in a few hours." Did this death occur from pulmonary embolism, from upward pressure by the enlarged spleen upon the heart, from cardiac weakness, or from inadequate supply of faulty blood to the brain?

(To be continued.)

**BROMIDE OF SODIUM.**—Dr. Field, Professor of Therapeutics at Dartmouth College, writes to the *Boston Medical Journal*, May 10, stating that, although the employment of bromide of sodium has of late increased, he does not believe the profession sufficiently appreciates its superiority over the bromides. Long and attentive observation has convinced him—1. That bromide of sodium, being a soda compound, is less disturbing to the system, rendering bromism less probable and less persistent. 2. It is less depressing from continuous use on the heart's action. 3. It is less offensive to the taste, and much less irritating to the stomach. Foul tongue, foetid breath, and deranged digestion are less common and less extreme under its continued use. 4. It possesses equal therapeutical power, or rather superior power, from the greater mildness of its action, and because it can be employed when the potash salt would be inconvenient or impossible. It is pre-eminently the child's bromide, owing to its less disagreeable taste; and for children two years old the food may be seasoned with it instead of with salt—a few grains being added to the bottle of milk several times a day or at bedtime; or, again, from two or four grains may be given in a teaspoonful of water, sweetened or not, which with the potash salt would be impossible. For nausea and vomiting in the adult, and especially in nervous females, whether occasioned by derangement of the stomach or reflected disturbance, one of the most effective remedies is half a drachm of the bromide to half a tumbler of iced water. This must be drunk slowly as the stomach will bear it, and a little ice must be kept in the solution until it is all taken. The bromide of potassium could not be taken in this way any more than it could in sea-sickness, in which the soda is so useful. Dr. Field cannot state from his own experience whether the bromide of sodium has equal power with the potassium in grave neuroses, as epilepsy. There is, however, much affirmative evidence. But for the many conditions met with in general practice there can be no doubt as to its superiority—for example, as a simple hypnotic and general sedative in various nervous conditions, as an antispasmodic in mild chorea, etc.

**ACTION TO RECOVER THE PRICE OF BLOOD FURNISHED.**—Banks, a coloured man, has begun a suit against Dr. Garrigues and Mr. Okerberg for \$250 as the value of eight ounces of blood taken from him and injected into the veins of Mr. Okerberg. It appears that this gentleman went to bed in a small, close room, blowing out the gas. In the morning he was found insensible, and Dr. Garrigues performed transfusion. The patient recovered, and now Banks, who furnished the blood, claims what he considers a fair compensation.—*New York Med. Record*, July 7.

(f) Dr. Magaziner Kelnert's Report, from *Russian Military Medical Gazette*, No. 3, 1883.



## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### THE MIDDLESEX HOSPITAL.

#### CASES OF EXTERNAL MEDIAN URETHROTOMY UNDER THE CARE OF MR. H. MORRIS.

*Case 1.—Abscess of Prostate—Cystitis—Median Urethrotomy—Death from Inflammation of Ureters, Pyonephrosis, and Diffuse Suppurative Nephritis.*

[For notes we are indebted to Mr. D. STEPHENSON, the Dresser.]

WILLIAM N., aged forty-eight, a warder at a convict prison, was admitted into Forbes ward on January 12, 1882.

*History.*—Seven months ago he first had pain and frequency in micturition, and after these symptoms had continued for a few weeks, he one day passed a quantity of pus by the penis. A urethral discharge continued for some time afterwards. Urine was often high-coloured, with a sediment like red sand. Never passed a stone. No history of gout or rheumatism.

*On Admission.*—Complains of a constant desire to pass water night and day: last night he had to get out of bed six times; during the day he has to make water about every fifteen minutes. Has to strain a good deal, and suffers great pain, which lasts for some minutes after micturition. Has passed small drops of blood after passing water. Urine contains a quantity of pus.

January 12.—No stone or growth in the bladder. No stricture. Per rectum there was not the usual fulness or resistance of the prostate.

The symptoms continuing to increase in their severity in spite of all ordinary treatment, injections of hot water into the bladder were tried, but without any sign of benefit. Mr. Morris therefore, on January 29, made an incision into the membranous urethra through the middle line of the perineum, cutting on a staff with a median groove.

February 2.—Since operation has passed all his urine through the wound. He has lost the dysuria, but still has a little pain at the end of the penis. Pulse 80, full and large; tongue brown and dry; bowels loose; very thirsty; skin cool. Says he has been much comforted by the operation.

There is no need to record the subsequent daily notes of this patient. It is sufficient to say that he continued free of the spasms and frequent efforts at micturition; that he took his food and slept well for over a month, and that then the evidence of rapidly extending renal disease became more marked, and death occurred on March 13, nearly six weeks after the operation. During the whole of this time micturition was performed through the wound; a catheter was retained for several days, and after its removal the wound showed no tendency to heal, much to the patient's satisfaction, who repeatedly expressed his gratefulness for the operation, and would have on no account returned to the normal mode of urinating.

Dr. Fowler made the post-mortem examination fifteen hours after death, and Mr. Sutton examined the bladder and urethra after their removal from the body. From their report we learn that the ureters were much distended, and their mucous membrane blackened and ulcerated. Near the orifice in the right ureter there were a number of small tubercular-looking nodules; similar nodules were present in the left ureter. The pelvis of each kidney was distended, the mucous membrane eroded and acutely inflamed, and, as seen post-mortem, of a blackish-green tint. There were several caseous nodules on the surface of their lining membrane. The pyramids were extensively destroyed, and several large sloughs were on the point of separating; in other parts but little of the pyramids remained. Scattered through the substance of the kidney were a vast number of caseous and suppurating foci; and there were seen also upon the surface of the kidneys, after removing their capsules, a number of suppurating spots. The bladder was contracted; its mucous membrane was (post mortem) of a blackish tint and eroded in many places. Small ulcers and tubercular-looking bodies were seen scattered over the surface, a few in the trigone, but chiefly situated at the fundus. The orifices of the ureters were much dilated and thickened. On laying open the urethra from above, the

posterior half of the prostatic portion was seen to be distended on the right side of the median line. On the floor of this part, about one-third of an inch in front of the sinus pularis, was a small opening, partly ulcerating; partly contracted by cicatricial tissue. This opening led into a large abscess-cavity two inches by half an inch in diameter, which had approached very near to the mucous lining of the rectum just above the anus, and had destroyed the whole of the middle lobe and part of the right lobe of the prostate, as well as a part of the right wall of the membranous urethra. The left lobe and a small part of the right lobe of the prostate were not destroyed; but the normal rounded outline and the resistance of the prostate were almost wanting. In the membranous portion of the urethra was the incision about half an inch long, made at the operation; this was still patent. There was no stricture of any part of the urethra.

*Remarks.*—The diagnosis formed in this case was cystitis secondary to suppuration in the prostate, and that the prostatic abscess had discharged per urethram. The post-mortem showed that the nature of the disease was tubercular, and that the prostate was the original seat of the deposit. The operation was performed simply to relieve symptoms, not with a hope of cure, as it was evident from the first that the kidneys had become already affected. The beneficial results of the operation were very obvious to those who witnessed the course of the case, and were constantly testified to by the patient himself.

*Case 2.—Stricture of Urethra—Cystitis—Sloughing of Bladder—Median Urethrotomy—Relief of Bladder Symptoms—Death from Peritonitis due to Ulceration of Bladder.*

[From notes by the Dresser, F. J. JAYNES.]

John A., aged seventy-two, admitted into Forbes ward on the morning of December 19, 1882.

*History.*—Had gonorrhœa some years ago. First had retention of urine five years ago. Since that time he says he has been subject to slight attacks of this kind; but he has always been able to overcome them until within the last seven or eight weeks, during which he has required to have the catheter passed very frequently, and has had constant pain and spasm in his penis and about his bladder. For a fortnight past his doctor has wanted him to go to a hospital, as there was nothing to be done for his relief but an operation.

*On Admission.*—Has not passed water since 11.30 last night. Bladder appears to be distended. There is a large area of dulness, hardness, and tenderness in the hypogastrium. Has a stricture at the meatus, and about three inches down the penis. A No. 4 catheter was passed by the House-Surgeon with difficulty; but no urine could be drawn off. On withdrawing the catheter, the eye was stopped up with long threads of sloughing mucous membrane. About 2.30, Mr. Morris saw the patient, and, after incising a contracted meatus, passed a No. 6 catheter without difficulty; but only about three ounces of dark, very offensive urine were drawn off. There still remained the dulness in the hypogastrium, with great tenderness in this region. In the evening only about three ounces of urine were drawn off, and none passed voluntarily. He went through a most distressing night, constantly straining to pass water, but without effect.

December 20.—He is in great pain over the abdomen. Has a constant desire to pass water, which he is unable to do. Has vomited a good deal, the vomit being of the colour and consistence of "coffee-grounds." At 1.30, Mr. Morris, with a view to give relief to the frequent spasmodic efforts to micturate, decided on performing median urethrotomy. The patient having been put under the influence of an anæsthetic, an incision was made down on to the membranous portion of the urethra through the middle line of the perineum. A piece of india-rubber tubing of large calibre was introduced through the wound into the bladder. Only a small quantity of very offensive urine escaped, but a large piece of black, sloughy mucous membrane, like an imperfect cast of the bladder, came down through the tube, and was withdrawn. The bladder was well washed out with a weak solution of Condy's fluid, and the patient put to bed.

21st.—Had some quiet sleep, and has been quite relieved of the spasmodic efforts at micturition. He said it was the first real sleep he had had for six or seven weeks. Bladder again washed out. Quite free from pain, but weaker. Quantity of urine which has been voided is small; it has all



come through the tube. At 4 p.m. he became collapsed, and died at 4.20.

The post-mortem was made by Dr. Fowler, twenty-two hours after death. On opening the abdomen, the peritoneum was seen to be acutely inflamed, the intestines glued together by effused lymph; some coils of small intestine were adherent to the bladder and parietal layer of the peritoneum in the hypogastric region. These coils, and also the rectum and sigmoid flexure, to which they were adherent, contained a quantity of semi-fluid fæces, the whole forming a mass which almost filled the pelvis, and extended to within two inches of the umbilicus. About the base of the bladder the lymph gluing the adjacent coils of intestine was of older date than elsewhere. On carefully separating these parts, a small perforation with necrotic edges was seen in the serous coat of the bladder, and close to it was another necrotic patch which had not perforated. On depressing a catheter passed into the bladder, the point approached close to the perforation in the peritoneum just mentioned. The penis and bladder were then removed entire and laid open. Two inches from the orifice, the mucous membrane of the lower wall showed a rent nearly an inch long; beyond it there were several other less extensive rents in the mucous membrane, which was rough from this point onwards to the bladder. In the membranous portion the lower wall had been divided for a distance of one inch. This incision communicated with a wound in the perineum, also about one inch long. The mucous membrane here showed signs of injury independent of the incision, there being several small rents. The prostate was not enlarged, and there was no "third lobe." At the orifice of the bladder, immediately behind the uvula vesicæ, there was a tunnel through the mucous and submucous coats on the left of the middle line; this would admit of a No. 12 catheter. The bladder was contracted; the walls extremely thick, measuring three-quarters to half an inch; the mucous membrane was rugose and intensely inflamed, and here and there pigmented. The orifices of very small sacculi could be seen between the rugæ. There were several necrotic spots and larger sloughs, especially about the base of the bladder, in which there was also a rounded opening that admitted the little finger. The edges of this opening were steep and smooth, but the mucous membrane around it was sloughy. Through this channel a communication existed between the bladder and an irregular sac lying beneath the peritoneum at the place where it was perforated, as previously mentioned. To the left of the middle line the sac was found to contain a quantity of brownish fluid, evidently altered blood, which had been effused into the cellular tissue around the bladder. The ureters were normal. The kidneys were small and granular; capsules adherent; cortices wasted; the medullary portion pale, and in right kidney swollen from recent inflammation; lining of pelvis of each injected.

*Remarks.*—This old man was admitted in almost a moribund condition. There was the history of stricture for years, and of cystitis for weeks. Frequent catheterism had been employed, but without relief to, probably even aggravating, his distress, which steadily increased in severity. The quantity of urine secreted by his diseased kidneys was very small, and although there had been fifteen hours' complete retention when first seen by me, only three ounces of urine were drawn off. Some other condition than a distended bladder had therefore to be sought for as the cause of the hypogastric dulness and tenderness; and though from the general symptoms and abdominal pain it was concluded that peritonitis with intestinal adhesions existed, there did not appear sufficient reasons for supposing the inflammation of the bladder had run on to actual perforation; and even when, at the time of the operation, the large slough escaped from within the bladder, we had no proof that its walls had been quite perforated by the necrotic process. On examination of the perforated spot, which was old, discoloured, and sloughy, it appeared that the frequent contact of the catheter against the same part of an already inflamed bladder had determined the point of perforation. The danger from catheterism is a real one in the case of the bladders of old people, when ulcerated or softened by inflammation, and it furnishes another argument in favour of giving relief to the restless and painful organ by perineal incision, instead of constantly harassing it by unavailing and harmful use of instruments. That in this case there

had been many hitches with the catheter was proved by the torn and tunnelled condition of the urethra. How much suffering the patient would have been spared had he taken his doctor's advice, and come earlier to the hospital, was shown by the relief the operation afforded him; but though I performed the operation on the day after his admission (and would have done it at the time of my first seeing him had I had the sanction of his relatives), it was all too late to save his life. Incidentally, this case also shows that the bladder may be perforated at a part covered by peritoneum, and that, provided the process be a slow one, extravasation of urine into the peritoneal cavity may be prevented by adhesion of the bowels to the bladder.

(To be continued.)

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## Medical Times and Gazette.

SATURDAY, JULY 28, 1883.

#### THE HOUSE OF LORDS ON ARMY HOSPITAL SERVICES.

THE debate in the House of Lords, on Friday last week, on the Army Hospital Services in Egypt, and on the organisation of the Army Medical Department, added nothing to our knowledge of the hospital management during the campaign, and threw very little light on the vexed question of whether medical officers shall, or shall not, again be attached to regiments. Lord Bury asked the House to resolve, that while the individual officers in Egypt behaved admirably well, the system under which they worked did not successfully stand the strain put upon it; that the military authority exercised by the medical officers was inconvenient, and that discipline in hospitals ought to be administered by combatant officers, leaving to the medical officers medical duties only; and that medical officers ought to be attached to regiments instead of being detached for duty day by day from station and other hospitals. In his speech, as in his resolution, he was studiously courteous to the medical officers, as *medical men*; it was only as officers entrusted with the command of men that they failed. His great object was to show that every military hospital, station as well as general, must, if things are to go on well, be governed by a military commandant and the absolute necessity of a return to the regimental system: and to prove this he contended that "the some-



what of a break-down" that happened in the Egyptian campaign was due to the fact that although the medical officers individually were unexceptionable from a medical point of view, they were unable, owing to defective training, to enforce discipline in the hospitals; this defect, again, being due to their not being attached, when they entered the Service, to regiments. Under the present system, his lordship said, "medical officers, not being attached to regiments, had no means of becoming disciplinary officers; and consequently they had entirely failed in the attempt to carry out this branch of their functions." But even were the old system restored, Lord Bury still would not trust the medical officers, though they had learned discipline through having been regimental officers, with the command of their hospitals; but insisted that in all cases that must be entrusted to combatant officers. He appears to hold that there is only one kind of discipline—the kind that can be learned in an orderly-room, and imparted by an adjutant! We must ask, is there really no other kind of discipline? Does not a young medical man learn discipline when he attends practice in a civil hospital? Does he not see by every bedside that orders must be implicitly carried out? Does he not learn to subordinate his own opinions to those of his superiors in age and position? Surely he is taught the value of time, and the need of punctual performance of duty! Lord Bury quoted, from the evidence given before Lord Morley's Committee, cases to show what, in a combatant officer's opinion, "discipline" means. Colonel Maurice stated that a friend of his, a combatant officer, had sent his servant to ask the cook for some food, and the cook had, in very uncivil terms, refused. The medical officer in charge, when spoken to about it, regretted the incivility of the cook's reply, but added, "You must remember that though you are an officer here, you are a *patient* in the hospital, and you must conform to the orders of the hospital." This was thought unsatisfactory; but let anyone fancy what a state of confusion and mischief would speedily be brought about, could every officer in hospital send to the cook for food whenever he liked!

Some other instances of complaints were referred to by Lord Bury in support of his argument, but they were all petty or absurd. These subjects have, however, been fully noticed by us in former articles. There is no doubt that the hospital attendants were not all of them, by any means, all that could be desired; but they were at first very much overworked, and no man, even if well trained and disciplined, can for any length of time do at all well the work of two or three. Lord Morley, in replying to Lord Bury, pointed out that, in fact, there had not been any "break-down"; that the difficulties with which the medical officers had for a short while to contend were due entirely to the extreme rapidity of the campaign when it had begun in earnest; and that, notwithstanding those difficulties, the medical results were very remarkable, and gave ample proof that the sick and wounded had not seriously suffered. No conceivably possible organisation of the Army Medical Department can secure that every arrangement shall always work without hitch or disturbance in the stress of war, or that all the field or base hospitals shall at once and always be as well supplied and as free from discomfort or hardships as is a civil hospital in the English metropolis; nor, *pace* Lord Bury, will the dictum of a General Commanding-in-Chief convert a field hospital into a fully equipped base hospital. Lord Morley also pointed to the difficulty of recruiting the Army Hospital Corps. All civil hospitals are nursed by women, and the whole supply of male nurses and hospital orderlies must be maintained by the Army authorities. But some system might unquestionably be adopted for training men in the general and station hospitals. In England and

Ireland there are 182 station hospitals, and we do not see why in every one of them some men might not always be attending as Hospital Corps recruits. This matter, like the question of a partial return to the regimental system for medical officers, is a question of expense. The Duke of Cambridge suggests that a medical officer should be attached absolutely to a regiment for two or three years, during which he should be a regimental officer, as was the doctor under the old system; but at the same time he might attend at a station hospital, if such attendance did not interfere with his duties to his regiment. The Duke of Richmond and some other members of the House also spoke strongly in favour of the regimental system. Lord Wolseley, it may be observed, was conspicuous by his absence from the debate. Lord Morley acknowledged the importance and weight of the opinions in favour of regimental medical officers, and admitted that the Committee had not been unanimously against any return to that system. He was himself opposed to it, because medical officers would deteriorate if prevented from attending hospitals; but it cannot be supposed that they would seriously lose in skill and knowledge if the Duke of Cambridge's modified system were adopted, even should the period of regimental service be extended to three or four years. The Committee acknowledged that "the comfort and convenience of the Army generally have not been sufficiently considered in arranging the details of medical attendance of a regiment"; and this modified, short regimental-service system would probably supply fairly well the shortcomings of the present system. The great difficulty in the way of any such change is that it would cause extra expense. Is the nation really so poor that it cannot afford, or is the Ministry so timid that they dare not suggest, an increase of a few thousands a year to the Army estimates in order to render the Army Medical Service thoroughly efficient? No one can believe that the fault in this case lies with the people of England.

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#### STATE-MADE LUNACY.

AN important conversation took place in the House of Lords last week on the question of overwork in elementary schools and its connexion with insanity. The gravity of the evil was, of course, officially minimised by the Lord President of the Council, but he virtually admitted its existence. Lord Shaftesbury, whose position as President of the Commission of Lunacy redoubles the weight which his personal opinion carries with it, concluded an ominous speech by saying that "the state of things that existed was well worthy of the consideration of Her Majesty's Government." Lord Carlingford deprecated the allusion to the increase of insanity that was made by Lord Stanley of Alderley, who introduced the subject to the notice of the House, but he admitted formally the existence, and by implication the prevalence, of overwork in elementary schools; and when this is admitted the defence is virtually abandoned, for no one who has mastered the rudiments of physiology and psychology can doubt that excessive mental strain, at the period of time when the brain is undergoing its most active development, must impair the process and cause it to result in an imperfect structure. Let us see what is meant by overwork. The Educational Code requires a school attendance of twenty-five hours per week. At the same time the Government holds out inducements, in the shape of grants of money to the teachers, to attain the best possible results at the periodical examinations by the inspectors. In order to gain a good report from these officials (a report on which, of course, the reputation and career of the teacher largely depend) the children are—it is admitted as to some schools, and it is implied and appears morally certain as to many schools—



urged and driven to work more than double the stated number of hours, and to learn a very large variety of subjects. In one school the hours of work all the year round were seven and three-quarters per day, and for three months before the examinations the dunces or less forward children had an additional hour, making *eight hours and three-quarters per day* of brain work for children under the age of thirteen years! A child of this age requires at least ten hours of sleep out of the twenty-four, and if this requirement is satisfied there remain five and a quarter hours for meals, for getting to and from school, for dressing and undressing, etc. Out of these five hours and a quarter how many are spent by the jaded children in outdoor exercise and play? When we know these facts it is unnecessary to ask for figures in order to determine whether insanity is increasing or no. We may require figures to tell us whether small-pox increases with the decrease of vaccination, or whether crime increases with the increase of drunkenness, or whether fevers increase with the neglect of drainage; but when the brains of young children are exercised to a degree out of all proportion to the exercise of their bodies,—when at the most active period of life they are kept at sedentary work for two-thirds of their working-hours, or of what ought to be their working-hours,—when, after working an excessive number of hours at school, they have tasks to take home, for neglect of which they are whipped,—we do not need statistics to assure us of the result. A sound and stable brain can no more grow from thin and poorly oxygenated blood, supplied under feeble pressure by a heart that is not duly stimulated by general muscular exercise, than a substantial house can be built of rotten materials. And when the expanding brain, which is struggling to grow under an insufficient supply of inferior materials, is at the same time suffering daily an excessive waste which has to be repaired from the same source, it is abundantly manifest that either the repair must be incomplete, or the growth must be scamped, or both must be badly done. No truth in biology is better established than this, that the more development is hurried, the more fragile, unstable and ephemeral is the result. As well might we expect the fungus that grows up in a night to attain the toughness of an oaken sapling, as expect the brains that develop under this system of forcing to withstand successfully the wear and tear of after-life. Children do, of course, break down actually during the process, and there are few physicians in considerable practice who could not speak to such cases from their own experience, but the graver effects are commonly more remote. It is when the stern realities of adult life begin to be experienced, when the struggle for existence is in full progress, that the inherent weakness of a structure built up under such unfavourable conditions becomes manifest, and under a moderate strain it breaks down.

When we ask who is responsible for the overwork, we are answered by a chorus of excuses. Lord Stanley of Alderley lays the blame upon the Department. "Why," he asks, "should the Education Department dangle 'excellent' before every master and mistress, and, having with every new edition of the Revised Code raised the standard of learning, make it really wrong for those teachers to attempt to get excellent and to secure the grant?" The Lord President says that overwork is entirely due to "overzeal on the part of the managers of schools." "The real cause of overwork is to be found in the despotic requirements of the local educational authorities." The school managers, on the other hand, are in some cases "obliged to issue circulars to the masters and mistresses," forbidding them to work the children overtime.

In spite of all this shifting and denial of responsibility, it is very easy to see where the fault actually lies. "There is

no reason," says Lord Carlingford, "why school-managers should go beyond their powers. Any school may earn a very fair grant by confining itself to the ordinary subjects of instruction." Very likely; but can it be supposed that school managers or school masters will remain content with a "very fair" grant when a still better grant is to be got? The plain truth is that the Government grants are so arranged as to place a direct and substantial premium on the practice of overworking the children. Whether this result could be avoided by a redistribution of the grants, or whether it is one of the necessary and inherent vices of "State-tamperings" with the duties of parents and citizens, it is not in our province to inquire, but there can be no doubt that the Education Department is in danger of becoming a powerful factor in the production of lunacy in this country, and the sooner this danger is recognised the better.

#### KNIGHT OR BARONET?

THE medical profession in Dublin is greatly disturbed. Another insult has been offered to the long-suffering sister isle, and the doctors have risen to resent it. The incident is a grave one, and amounts to no less than this—that a distinguished Dublin surgeon has been offered the honour of knighthood. So soon as the tidings became known to the profession it aroused a storm of indignation, which an unconcerned spectator might have imagined to have been the expression of an outraged Spartan simplicity and an offended republican sternness. Such was not the case. The offer was scouted, but not as an offer of distinction from an alien Government. The ground of its rejection was that it was not enough. The title ought not to have been a mere knighthood, but a full-blown baronetcy. Now, as to the question between the Government and the profession in Dublin, let us say at once that our sympathies are entirely with the latter. According to the unwritten law which regulates such matters, the title offered ought unquestionably to have been a baronetcy, and the Government have been guilty of a violation of custom and a gratuitous blundering which were certain to arouse resentment, where the intention presumably was to confer an honour and to do a kindness. The action was so plainly and manifestly a wrong one, and the grievance thus put into the hands of the profession in Ireland was so unanswerable, that it seemed out of the question that any turn of affairs could put the latter in the wrong. What no one could possibly have done for them, they, however succeeded in accomplishing for themselves. A deputation of Irish medical men waited on the Under Secretary to present a memorial to the Lord Lieutenant of Ireland, in which they actually asked for "an hereditary titular distinction" to be granted to *both* branches of the profession. This was done in sober seriousness; and it appears to us a grievous mistake. Taste is, however, proverbially a matter for individual decision; and that particular form of it which is known as "good taste" is perhaps especially so, and we therefore leave this aspect of the matter for our readers to form their own opinions upon,—only observing that the movement has drawn from Earl Spencer the rebuke that he is "unable to consider that the bestowal of honours by the Crown can be made the subject of discussion between him and any public body." What we wish to direct the attention of our readers to is a wider and more fundamental question, touching more permanently the honour and dignity of the profession. We ask them to remember that we are nearing the end of the nineteenth century; that we have almost wholly emerged from barbarism, and that we have begun to leave behind even that militarism which is the tedious stage that intervenes between barbarism and civilisation.



tion. To this semi-barbarous militarism belong, in great measure, titles, orders, badges, medals, and, in general, the paraphernalia of titular distinction. They are characteristic of a state of things that seems to be gradually passing away. Is it the part of a profession that proudly claims a place as one of the foremost representatives of civilisation to concern itself with the trappings of an inferior order of things? The only distinction that a medical man need desire is the admiration of his character, his abilities, and his achievements that he may obtain from his professional brethren and from the world at large. This is a distinction that no Government can give, and none can take away. It depends not on Court favour or the chance of nationality, but on a man's own merits and exertions, and it is the only distinction that will endure. If the "Fountain of Honour" in the kingdom offer a knighthood or any other honour, a medical man may accept it as a well-intended grace, or quietly and courteously decline it. But anything like craving for adventitious distinctions should cease; and a medical man should feel and be, as well as appear, indifferent whether he is addressed as Sir T. Weedledum, Kt., or as Sir T. Weedledee, Bart.

#### THE RELATION BETWEEN FLEXION OF THE UTERUS AND DYSMENORRHOEA.

WE noticed (a) at the time of its publication an able paper by Dr. Vedeler, of Christiania (published in the *Archiv für Gynäkologie*) upon flexions of the uterus. In that communication Dr. Vedeler gave the result of examination of some thousands of women, divided broadly into two classes—the sick and the healthy,—undertaken with the object of ascertaining the frequency with which uterine flexions occur. The "sick," from this point of view, were those suffering from symptoms referable to their reproductive organs; the "healthy," those that had no such symptoms. Dr. Vedeler found that flexion of the uterus was just as common in healthy women as in those who suffered from uterine symptoms. From this the conclusion would obviously follow that flexion of the uterus is seldom, if ever, a morbid condition.

But there was one defect in that investigation—viz., that Dr. Vedeler designedly left out of consideration the symptom dysmenorrhœa. He did so only because he purposed to consider it more thoroughly by itself. It of course might be said that dysmenorrhœa is the chief symptom which flexion of the uterus produces; and that had that symptom been included, the results would have been quite different.

The last published number of the *Archiv für Gynäkologie* is now before us, and it contains Dr. Vedeler's promised inquiry into the subject of dysmenorrhœa. At present we can only notice that part of the investigation which deals with the relation between dysmenorrhœa and flexion of the uterus.

Dr. Vedeler begins by relating some individual cases which shook his faith in the mechanical theory of dysmenorrhœa—cases in which menstrual pain came and went in a manner quite inconsistent with its dependence upon organic narrowing of the canal. We need not quote them, and will pass at once to the main subject. Our author gives first a table of 252 women, all of whom sought advice for some disease quite unconnected with the genital organs, and none of whom suffered from menstrual pain. Of these, 59 were virgins, and in only 12 of them was flexion of the uterus quite absent. In 47 that organ was more or less bent. In describing flexion, Dr. Vedeler divides the cases into three classes: flexion of the first degree, in which there is either mere curvature or an angle greater than a right angle; of the second degree, meaning flexion

at about a right angle; and of the third degree, in which cervix and body are nearly parallel. Of the 59 virgins, in 15 flexion of the second or third degree was found present; 101 other patients were unmarried, and most of them (88 out of 101) had not had children. In 36 the uterus was straight, and in 28 there was considerable flexion. There were 92 married, 82 of them having had children. In 44 of these the uterus was straight, and in 13 a flexion of the higher degree was present. Putting them altogether, out of 252 women menstruating without the slightest pain, acute flexion of the uterus was present in 56, or 22 per cent. Dr. Vedeler says that to him it seems clear that dysmenorrhœa cannot be dependent upon flexion of the uterus. This evidence, however, is merely negative, and therefore our author goes further. He gives a table of 100 patients suffering from dysmenorrhœa. In all of these there was not merely pain, but severe pain. Out of the 100, 82 were nulliparæ, 13 of them being virgins, and 18 had had one or more children. In 71 of the 100 there was ante flexion, in 4 retroflexion. In Dr. Vedeler's former investigation he found that, taking all women together, ante flexion occurred in about 54 per cent. Here, then, would seem an excessive frequency of ante flexion among the dysmenorrhœa cases. But this is only apparent, and results from the frequent association of dysmenorrhœa and sterility, and the consequent undue proportion of nulliparæ among those suffering from dysmenorrhœa. When the nulliparæ suffering from dysmenorrhœa are compared with nulliparæ in general, Vedeler gets this result:—

	Nulliparæ.	Nulliparæ suffering from dysmenorrhœa.
Anteflexion ...	71 per cent.	71 per cent.
Retroflexion ...	3 "	4 "
Anteversión ...	7 "	6 "
Retroversion ...	9 "	11 "
"Normal" ...	9 "	8 "

But, it may be said, there are degrees of ante flexion. This Vedeler has thought of. Among his 100 cases of dysmenorrhœa, ante flexion of the second or third degree was present in 26. Of those not suffering any pain at the menstrual period, these degrees of ante flexion were present in 20 per cent. of virgins, 27 per cent. of nulliparæ, and 13 per cent. of those who had had children. Consequently, says Vedeler, "the simplest reasoning forbids me to recognise any influence of flexion of the uterus upon dysmenorrhœa."

These researches of Vedeler do not stand alone. In a paper read before the Obstetrical Society of London in 1881, Dr. Herman communicated the result of an inquiry into the same subject, and on the same plan, as Vedeler. The two investigations differ only in the way in which the subject was approached, and they lead to an identical result. Vedeler took patients suffering from dysmenorrhœa, and those not so suffering; and he found ante flexion to be as common in the one group as in the other. Herman divided his patients into those in whom the uterus was ante flexed and those in whom it was not ante flexed; and he found that dysmenorrhœa was equally prevalent in each class. It is, moreover, interesting to observe that Vedeler's paper contains no mention of Herman's work; from which we may infer that he had not seen it, and that therefore these two papers may be regarded as the testimony of two independent witnesses. Each supports the other, and they conclusively show, unless their accuracy can be impugned, that ante flexion of the uterus has nothing whatever to do with the production of painful menstruation; that it is frequently met with in cases of dysmenorrhœa only because it is a very common condition. These researches derive increased importance from the fact that they are uncontradicted. Herman and Vedeler are, so far as we know, the only

(a) *Medical Times and Gazette*, vol. ii. 1882, page 100.



writers who have sought to test the supposed relationship between antelexion and dysmenorrhœa by a simple and scientific numerical method. Two conditions, each of them very common, of course must often coincide; and because antelexion and dysmenorrhœa often are found together, it has been assumed, without any proof, that the one was the cause of the other, and theories have been constructed to explain the mode of causation. These are now all brushed away by the simple explanation that antelexion in women who suffer from dysmenorrhœa is as frequent as, and no more frequent than, in other women of the same age, and condition as to sexual function. This explanation rests on the authority of the only persons who have investigated the relative frequency of these conditions in the healthy as well as in the suffering. Their facts stand on one side, and theory on the other. Unless very much more substantial grounds than exist at present can be brought forward to support belief in the mechanical theory of the diseases of women, we cannot doubt that it is doomed to rejection, if not to oblivion.

## THE WEEK.

### TOPICS OF THE DAY.

DR. SEDGWICK SAUNDERS, the Medical Officer of Health for the City, at the last meeting of the City Commissioners of Sewers, referred to the alarm which had been created by premature speculations on the probability of cholera reaching this country during the autumn. In order, however, to minimise the danger of a visitation from this disease, he stated the precautions which he recommended should be taken (and which, it may be said, are applicable to every district) to eliminate those elements which acted as factors in its production, spread, and virulence. The sewers should be flushed oftener than at present, and deodorants used occasionally. Foul gases from the sewers should be intercepted by providing a filtering medium of freshly prepared charcoal at the junction of the ventilating shaft with the roadway, and by closing the gratings in the roadway altogether, and carrying a six-inch pipe from the top of the ventilating shaft to the roof of an adjoining house. The catchpits in connexion with the street gullies should be emptied and deodorised every twenty-four hours. The roadways should be daily sprinkled with water containing some germicide. The courts and alleys should be flushed and deodorised daily, and the entrances and side-walls of the narrower courts lime-whitened occasionally. All house refuse should be removed daily, and the public dustbins emptied twice a day. The regulations for the removal of hog-wash, and all kinds of animal and vegetable refuse, from taverns and restaurants should be stringently enforced. Stables and cowsheds should be frequently inspected, and persons conveying offensive material through the City during prohibited hours should be prosecuted. Special examinations should be made into the condition, location, and water-supply of cisterns in houses and public buildings. The superintendent of scavenging should be placed in direct communication with the medical officer of health, and be subject to his orders. The common lodging-houses should be put under more direct control, and each one properly registered. Prosecutions should be systematically instituted against offenders under the Smoke Nuisance Act. The food inspectors should be enjoined to increased vigilance in detecting and seizing every description of unsound food, including meat, fish, fruit, and vegetables. On the appearance of the first well-authenticated case of cholera of the true Asiatic type, a house-to-house visitation by competent medical men should be at once commenced. Further, close attention to the condition of the water-supply was of paramount im-

portance; the general consensus being that water was the great carrier of all poisons which emanated from the dejecta of enteric diseases. The water should be analysed from time to time, and the position and cleanliness of the cisterns carefully considered. Dr. Saunders's report was ordered to be printed and circulated, and referred to the Sanitary Committee.

A numerous and influential meeting of medical men and students was held last week at St. Bartholomew's Hospital, to consider a proposal to establish a volunteer ambulance corps for the metropolis. Surgeon-Major Evatt, of the Army Medical Department, delivered an address on volunteer medical organisation, and urged the formation of a trained volunteer service to assist in the various surgical operations in the field, and in the regimental stretcher-bearers' duties. He urged the necessity for one thousand volunteer medical staff-surgeons, and probably ten thousand volunteer medical rank and file, the whole body to be organised into bearer-companies and field-hospitals, by counties and cities, and serving quite free from regimental organisation, as organised units under medical control. Resolutions were passed that a volunteer ambulance corps be formed of members of the staff, and of past and present members of the Medical School, and that a provisional committee be appointed for the enrolment of such corps in October next.

A sentence which is likely to have a deterrent effect was passed upon a pork-butcher at Canning Town by the magistrates at West Ham Police-court recently. The sanitary inspector of the district visited this man's premises on the 13th inst. On going into a small spare room behind the shop he found a large pickling-cask and several tanks in which were meat, several pieces, at least, of which were tainted. In an upstairs room a cask apparently full of salt only was found; careful examination of which, however, discovered pieces of beef, mutton, and pork, every piece being tainted, and some of the larger ones quite green. Over two cwt. of such meat was removed to the Town Hall, Stratford, where it was subsequently condemned. The magistrate observed on the grossness of the case, and sentenced the defendant to pay a fine of £100 and the costs, or, in default of payment, to imprisonment for three months with hard labour.

It is a scandalous but nevertheless indisputable fact that even in these days it generally needs the sacrifice of a life to insure the abatement of even the most patent nuisance; and yet every parish keeps a sanitary inspector, who is supposed to do his duty. Recently, Dr. Danford Thomas held an inquest at the Holborn Town Hall respecting the death of a child aged seven and a half months, the son of a horse-keeper named Hoy, living in Long-yard, Lamb's Conduit-street. It appeared from the evidence that in the mews in which the child's parents lived there was a bin, in which the refuse from the stables was kept, and not cleaned out till the whole mass was in a putrid condition. The medical evidence said that death was the result of blood-poisoning, caused by the effluvia from decomposing animal matter. The sanitary inspector stated that the mews were visited every week. A coffee-house keeper used to throw all the offal into this bin, and he was told that a poulterer had been in the habit of putting his trade offal in the same place. The consequence was that the odour from it was very bad indeed, and he had great trouble to get the people to desist from doing this. In future, he should take precautions to have the place cleared out at least three times a week, and to use disinfecting-powder. The jury added a rider to their verdict, calling the attention of the sanitary authorities to the dustbin in question. It does not



appear that anyone asked why the precautions which the sanitary inspector has sketched out for the future were not resorted to in the past, in which case there might have been no necessity for a coroner's inquiry.

On the 14th of the present month, the members of the Metropolitan Asylums Board paid their annual visit to the Leavesden Asylum, which contains about 2000 of the chronic imbecile patients who used formerly to be located in the London workhouse wards. The asylum, including its own farm, stands on upwards of eighty-five acres, and is situated near Watford, in Hertfordshire, being one of the four asylums for imbeciles under the management of the Asylums Board. The visitors were conducted over the building and round the wards by Dr. Case, the medical superintendent, and the Rev. Mr. Watson, the chaplain. Though all the patients are classed as chronic cases, it is found that many recover sufficiently to undertake different employments, and work on the farm. The cost for maintenance and clothing is kept down to less than tenpence per diem for each patient, a sum which is paid by the several metropolitan parishes. Before leaving, the visitors—amongst whom were Sir W. Wyatt, the first chairman of the Asylum, and Sir T. Tilly—warmly congratulated the Committee and the officers upon the manner in which the work of the Asylum was carried out.

It is satisfactory to know that the Government have taken active steps in reference to the epidemic of cholera which has broken out in Egypt. The Khedive's Government has been requested to associate Generals Stephenson, Wood, and Baker with the Sanitary Commission, with full power to order and execute such measures as may be deemed necessary. Further, before these pages are printed, twelve English medical men will have left this country for Egypt, taking with them a large supply of medicines and medical stores. The medical officers for this service have been selected with the assistance of Sir Joseph Fayrer, and most, if not all of them, have had extensive Indian experience. The Viceroy of India has also been instructed to send to Egypt, if the Government of that country requires their aid, forty experienced Mohammedan hospital assistants. These active steps have not been taken one instant too soon, and it may be readily conjectured that the news that cholera had attacked our troops had something to do with the promptitude of the action taken.

The Bethnal Green Vestry recently had before them an application for permission to build a considerable number of houses upon, and form a new street across, the disused burial-ground known as Peel-grove, in that parish. In the course of the discussion which ensued, it was stated by Mr. A. Irwin, the Metropolitan Board of Works member for Bethnal Green, that it was estimated there were not less than 20,000 human bodies in the ground referred to, and that numbers of these had not entirely decomposed; also that when the subject was first broached, it was urged that the foundations of any buildings or roads that might be constructed might subside as the coffins decayed and the graves fell in. The Metropolitan Board of Works were usually desirous of giving facilities for building operations; but this was a new application, for which, perhaps, there was scarcely a precedent, and it must be dealt with in a cautious manner. After some further discussion, the Vestry resolved to forward to the Metropolitan Board of Works the following resolution:—"That, in the opinion of this Vestry, it is extremely objectionable that any houses should be erected on the disused burial-ground in Peel-grove, unless the bodies therein interred have been previously properly removed."

A deputation from the British Medical Association, consisting of Mr. Ernest Hart, Dr. Carter (of Liverpool), Mr.

Alfred Carpenter (of Croydon), and Mr. Nelson Hardy, recently had a private interview with Sir Charles Dilke, at the Local Government Board, to protest against the proposal to make it obligatory on medical men to notify cases of infectious disease occurring in their practice. This, they contended, was part of the duty of the householder as a citizen, and should not be imposed, by penalty or otherwise, on the medical attendant.

#### THE CHOLERA IN EGYPT.

ACCORDING to the last reports, the total number of cases of cholera among the British troops has been seven, of which four were fatal—in the Black Watch at Suez, two, both fatal; in the Black Watch at Cairo, one, not fatal; in the Cameron Highlanders at Cairo, one, fatal; in the Hospital Corps at Cairo, two, one fatal; and in the Artillery at Cairo, one, not fatal. The number of deaths amongst the Egyptians in the twenty-four hours preceding July 25 were—at Mansourah, 13; at Samannoud, 8; at Menzaleh, 3; at Chibin-el-Kûm, 113; at Zefteh, 23; at Mehallet, 43; at Ghizeh, 95; at Tantah, 16; at seven other villages, 23. At Cairo within twelve hours 284 deaths had occurred, of which 139 were at Boulak; and it is reported that two fatal cases occurred in Alexandria on the 25th inst. Surgeon-General W. Hunter, M.D., Honorary Surgeon to Her Majesty, had arrived at Alexandria, and proceeded to Cairo on the 26th inst. Earl Granville has appointed the following medical gentlemen to proceed to Egypt, for the purpose of giving assistance to the Egyptian Government in dealing with the epidemic of cholera:—Dr. Gulliver and Dr. Acland, of St. Thomas's Hospital; Mr. H. M. Crookshank, University College; Dr. McNalty, Indian Medical Service; Dr. A. F. Wilkins, Edinburgh; Dr. Armand Leslie, Middlesex Hospital and Paris; Dr. F. E. Taylor and Dr. A. Honman, Charing-cross School; Dr. F. G. Thrapp; Dr. C. F. Parker, Dublin and Manchester; Mr. S. Wyborn, Charing-cross School; and Mr. J. Cantlie, one of the surgical staff of the Charing-cross Hospital. Most of these gentlemen left for Egypt on Wednesday evening, and some on Thursday.

#### THE ARMY HOSPITAL CORPS.

THE reply made by the Secretary of State for War to a question put in the House of Commons on Monday by Baron H. de Worms, gives a good reason why men may not be very willing to enter that service. The Baron asked whether it was the fact that when a man of the Hospital Army Corps contracted an infectious disease, in consequence of his nursing patients suffering from such disease, he was deprived of his extra pay, and was made subject to hospital stoppages while he was being treated in hospital, though the disease had been contracted in the execution of his duty. And the Marquis of Hartington replied: "Men of that corps are liable to stoppages in the circumstances named, on the general principles that special pay for duty cannot be issued except for the performance of the duty; and that all soldiers are liable to hospital stoppages unless in hospital on account of wounds received in action, or of illness contracted on a service with an army in the field. The question of relieving men of the Army Hospital Corps from these stoppages in the case of illness contracted in the discharge of duty has been frequently considered; but a difficulty has hitherto been felt in treating them differently from other corps in receipt of departmental pay. I will, however," he said, "undertake to look further into the matter." It does seem hard, to say the very least, that the men of the Hospital Army Corps should not only lose their extra pay when laid aside by disease contracted from the patients they nurse, but also have to be mulcted in hospital stoppages;



and we trust that the further inquiry promised by the Secretary of State will result in these men-nurses being dealt with more justly and considerately.

#### THE TREATMENT OF DILATATION OF THE STOMACH.

UNDER the title of gastritis, atrophy, and dilatation of the stomach, Dr. James Russell records (*Birmingham Medical Review*, Nos. 58, 59) the case of a man, aged twenty-six, whose symptoms extended over a period of ten years, dating from an acute attack of ill-defined nature, probably gastritis. "This attack permanently changed the digestive power of the stomach; from that time the patient lost the ability to assimilate animal food, with the important exception, however, of milk. Ten years afterwards we found that meat, finely comminuted, and given in small quantity, remained for two days in the stomach, and was then rejected, unchanged." The patient was thin, but not cachectic, and there was considerable dilatation of the stomach. It was found that, even when tried most carefully, all kinds of solid albuminoid food were rejected after a more or less brief stay in the stomach. Milk alone could be retained. Of some substances (*e.g.*, cod-liver oil) the stomach was exceedingly intolerant, and immediately rejected them. Washing the stomach out by means of the syphon-tube was tried, but it produced considerable distress, and did no good. In the ordinary forms of atrophy of the stomach, the peptic glands are the chief sufferers, and the patient is able to assimilate the hydrocarbons. In this case, however, the patient was very thin, and unable to digest anything but milk; a condition of subacute or chronic gastritis was constantly kept up, and as a result of these changes and the impaired general nutrition which necessarily followed, a state of dilatation of the stomach was induced. This, of course, tended to keep up the mischief by permitting of the accumulation of food in the stomach, and favouring its decomposition. The remedy for this state of things employed by nature is vomiting, and cleansing the stomach by means of the syphon-tube is therefore the proper line of treatment to adopt. In the case above alluded to it failed, probably in great measure owing to the organic changes that had taken place in its structures. The value of washing out the stomach in cases of dilatation of that body is well shown by the three cases given at the conclusion of the paper, in one of which the patient found such relief from it that he sometimes resorted to it twice a day.

#### SIR GEORGE HORNIDGE PORTER, M.D., SURGEON TO HER MAJESTY THE QUEEN IN IRELAND.

SIR GEORGE PORTER is the only surviving son of the late William Henry Porter, M.D., Professor of Surgery in the School of Surgery of the Royal College of Surgeons in Ireland, and for some time the representative of that body on the General Medical Council. Born on November 24, 1822, Sir George in due course graduated in Arts and Medicine in the University of Dublin, receiving in 1876 the additional degree of Master of Surgery, *honoris causa*. In 1849, Sir George was elected Surgeon to the Meath Hospital and County Dublin Infirmary, of the staff of which institution he has been for some years the senior member. Probably no other living surgeon in Dublin has received so many marks of recognition of his reputation at the hands of his professional brethren. In 1861 he was appointed Consulting Surgeon to the Coombe Lying-in Hospital; in 1866 he was elected Surgeon to Simpson's Hospital. He filled the chair as President of the Royal College of Surgeons in Ireland in 1868, and the following year was chosen President of the Pathological Society of Dublin. In this year (1869) also he became Surgeon to Her Majesty the Queen in

Ireland. In 1876 he was elected Consulting Surgeon to Saint Mark's Ophthalmic Hospital, Dublin; and in 1878 he presided over the Dublin Branch of the British Medical Association. In 1880, Sir George was elected a corresponding member of the Edinburgh Medico-Chirurgical Society; and in 1881 he was appointed Consulting Surgeon to Steevens's Hospital, Dublin. His contributions to surgical literature are many and varied, and may be found quoted in all modern systems of surgery, both in Great Britain and in America.

#### ACADÉMIE DE MÉDECINE.

THE vacancy in the Section of External Pathology, caused by the death of Baron Cloquet, has been filled up by the election of M. Lannelongue by the votes of fifty-four of the eighty-four academicians present. The Section had presented the list of candidates in the following order:—MM. Lannelongue, Le Dentu, Terrier, St. Germain, and Péan. The Academy, however, raised M. Péan from the last place on the list to the second, giving him twenty-six votes.

#### HONOURS TO METROPOLITAN MEDICAL MEN.

HER MAJESTY has graciously conferred the honour of baronetcies upon Mr. Prescott Hewett and Dr. Andrew Clark. The fitness of the distinctions thus granted will be acknowledged with much satisfaction by the profession at large. Mr. Prescott Hewett is one of our most distinguished and popular surgeons. He is a Foreign Correspondent of the Academy of Medicine and of the Society of Surgeons, of Paris; Sergeant-Surgeon Extraordinary to Her Majesty, and Surgeon-in-Ordinary to H.R.H. the Prince of Wales; and a past President and Professor of Anatomy and Surgery of the Royal College of Surgeons of England. Dr. Andrew Clark, the senior Physician to the London Hospital, is not connected in any way with the Court, and has not any high official position; and the honour conferred on him is a recognition purely of his eminence as a physician. It is therefore a new departure in the bestowal of honours by the Crown, and will be for that reason especially grateful to the profession.

#### NEW DENTAL HOSPITAL IN MANCHESTER.

A DENTAL Hospital was opened in Manchester on Saturday, the 21st inst., being the first institution of the kind that has been established in that city. A number of gentlemen interested in the movement formed themselves into a committee a few weeks ago, and, having raised the requisite funds, obtained a house in Grosvenor-street at a very moderate rental, which they have fitted up and adapted to the purposes of a hospital. The rooms on the ground floor are set apart for ordinary cases of extraction, while on the first and second floors are an operating-room containing three of Morrison's dental chairs, a comfortable waiting-room, and a committee-room which can also be used as a lecture-room. Hitherto, Manchester candidates for the dental diploma have been unable to obtain the necessary instruction in their own town, and have been compelled to go either to Liverpool or to London for the purpose. It is intended by the promoters of this Hospital to keep steadily in view the desirability of removing this anomaly, and, with this object, to aim at establishing, as soon as possible, courses of lectures and practical instruction in dentistry at the Hospital. There can be little doubt that, before long, the authorities of the Owens College will be asked to take up the question of the education of dentists, and to include dentistry amongst the special subjects taught within its walls. Any move in this direction has hitherto been impossible, owing to there being no facilities for demonstrating



practically the various manipulations and operations of dental surgery. This difficulty it is one of the objects of the new Hospital to remove. In the list of office-bearers may be noticed the names of the Earl of Crawford and Balcarres, LL.D., F.R.S., President; Mr. John Tomes and Sir Edwin Saunders, Patrons; and Dr. Lloyd Roberts and Mr. Hardie, F.R.C.S., who have been appointed Consulting Physician and Consulting Surgeon respectively.

#### TROPHIC TROUBLES IN PRIMARY JOINT-DISEASE.

THIS important question in surgical pathology has been treated of by Julius Wolff in the last numbers of the *Berliner Klin. Woch.*, Nos. 27-30. Stated as facts, we may say that lesions of the skin, muscle, and bone have been found in association with inflammatory disease of the joint. What the exact relation between these facts is, must be regarded as a difficult pathological problem. We know from the observations of Weir Mitchell and others that gunshot wounds and other traumatic influences of nerve-trunks are capable of inducing many lesions of nutrition. It is reasonable to urge, therefore, that such affections might be explained by the aid of the spread of inflammatory action from a joint to the neighbouring nerves. But Paget and Vulpian have argued, and Valtat and Charcot have endeavoured to prove, that such lesions are caused through the intermediation of a reflex mechanism. Gurlt and other German authorities have considered that the mere inactivity of the affected limb would account for the various lesions of the different tissues which have been described. Quoting some statistics from Gurlt's inquiries, Wolff, who denies the above tenet of Gurlt's, comes to the conclusion that the unsatisfactory final issue of the majority of cases of resection of joints, especially those done during campaigns, may be set down to the occurrence of the various trophic wastings, etc. Gurlt seems to have shown that out of 652 final results of resections of the joints, only 240 were of a very satisfactory nature.

#### THE WEST MALLING POISONING CASE.

AT the recent Maidstone Assizes, before Mr. Justice Day, the Rev. John Henry Timins, vicar of West Malling, was placed at the bar to stand his trial on a charge of manslaughter, in feloniously killing and slaying one Sarah Anne Wright. It is not impossible that our readers may have forgotten the circumstances which led to the committal of the Rev. Mr. Timins, since they occurred so far back as December 14 last. This gentleman, who is about seventy years of age, and has for nearly forty years been vicar of West Malling, was in the habit of doctoring his parishioners, on the strength of having attended some lectures at St. Thomas's Hospital in early life. In the present case he appears to have blundered between "essential" and "expressed" oil of almonds; and although warned by the chemist who supplied the article, he administered a fatal dose of the first, which took effect in less than two hours. Mr. Justice Day, in summing up the case to the jury, said this was a case of homicide by negligence, and it was clear that the prisoner had caused the death of the deceased by the administration of a poison. The question for them was whether he had done so under circumstances which made him criminally liable. Unless gross negligence was established against the accused, it would be their duty to acquit him. The first question was, what did the prisoner send for? That was shown by the written correspondence between him and the chemist, from which it appeared that he knew he was to receive poison, and the chemist put upon the bottle the label "essential oil of almonds"; it was also marked "poison." The question was whether the administration

of poison under such circumstances was or was not criminal negligence. A person who took upon himself to administer such a drug was bound to be careful, and in this case it was clear that there had been a want of care. The jury at once returned a verdict of "Not guilty," which was received with some applause.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-eighth week of 1883, terminating July 11, was 1030 (577 males and 453 females), and of these there were from typhoid fever 39, small-pox 14, measles 28, scarlatina 2, pertussis 18, diphtheria and croup 23, dysentery 1, erysipelas 7, and puerperal infections 7. There were also 50 deaths from tubercular and acute meningitis, 182 from phthisis, 27 from acute bronchitis, 59 from pneumonia, 129 from infantile athrepsia (39 of the infants having been wholly or partially suckled), and 51 violent deaths (42 males and 9 females). The low mortality of the preceding week also prevailed during the present, and the great increase of deaths from typhoid fever has not continued, there having been only 39 instead of 64. The frequent admissions, however, continued, having been 127. Infantile athrepsia, as usual in hot weather, proved very fatal, the 129 deaths being the highest number registered this year. The births for the week amounted to 1220, viz., 641 males (499 legitimate and 142 illegitimate) and 579 females (421 legitimate and 158 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 55 males (35 legitimate and 20 illegitimate) and 40 females (21 legitimate and 19 illegitimate).

#### THE METROPOLITAN ASYLUMS BOARD.

AT the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last, amongst the business transacted it was decided, on the motion of Sir Edmund Currie, to accept the charges of the Thames Conservators for the mooring of the *Castalia* at Long Reach; other work in connexion with preparing the ship to receive patients suffering from infectious diseases was also sanctioned. A letter was read from the Wandsworth District Board of Guardians in reference to a refusal on the part of the Superintendent of the South-West Asylum to admit a case of diphtheria, and expressing the opinion of that Board that the asylum managers should make provision for such cases. The returns submitted from the several fever asylums showed that during the fortnight there had been 75 patients admitted, 9 had died, and 62 had been discharged, leaving 313 under treatment, or 4 more than in the last report. Of these 264 are scarlet fever patients, 3 are typhus cases, and 46 are cases of enteric fever. As regards small-pox, only 9 cases had been admitted during the fortnight, as against 20 in the previous fortnight; the patients discharged numbered 19, and 5 had died, leaving 53 under treatment, as against 68 a fortnight ago.

#### INTERNATIONAL MEDICAL CONGRESS.

WE have received the following communication from Professors P. L. Panum and C. Lange:—The eighth International Medical Congress will be held in Copenhagen from August 10 to 16, 1884. The General Organising Committee, formed for the preparatory work, is composed of the following members, living either in or near Copenhagen:—*President*: Professor Dr. P. L. Panum. *Secretary-General*: Professor C. Lange. *Secretaries*: Dr. O. Bloch, Dr. C. J. Salomonsen, and Surgeon-General Joh. Möller. *Honorary Treasurer*: Professor Dr. E. Hansen Grut, besides the Presidents of the special committees of the Sections, viz.:—*Anatomy*: Professor Chievitz. *Physiology*: Professor Dr.



P. L. Panum. General Pathology and Pathological Anatomy: Professor Dr. C. Reisz. Medicine: Professor Dr. F. Trier. Surgery: Professor Dr. Holmer. Hygiene and State Medicine: Dr. E. Hornemann. Military Surgery and Medicine: Director-General of the Medical Department of the Army, Salomon. Mental and Nervous Diseases: Professor Dr. Steenberg. Obstetric Medicine and Surgery, and Gynæcology: Professor Dr. Stadfeldt and Professor Dr. Howitz. Diseases of Children: Professor Dr. Hirschsprung. Ophthalmology: Professor Dr. E. Hansen Grut. Diseases of the Skin and Syphilis: Professor Dr. Haslund. Diseases of the Ear: Dr. W. Meyer. Diseases of the Throat: Dr. W. Meyer. In order that the meeting of so many distinguished medical men, who, it is hoped, will attend on this occasion, may be as advantageous as possible, the Organising Committee, following the example of the later Congresses, will communicate with distinguished men of different branches and of different countries, in order to prepare a programme. "This programme, as well as the rules, will be forwarded to those of our colleagues who we suppose take an interest in the work of the Congress, and who might be inclined to participate in it. In order that the programme may be ready as soon as possible, we shall be pleased if communications, referring to the work of the Congress, are sent to the Secretary-General before October 1 next, so that it may be possible for us to have regard to them in arranging the definite programme. The programme and rules will be forwarded, as soon as possible, to everyone qualified to participate in the Congress, who within the limited time has announced to the Secretary-General his interest in the Congress, and his intention of participating in it; and, if possible, which section he intends chiefly joining."

#### DEATH OF DR. ARCHAMBAULT.

DR. ARCHAMBAULT, Physician to the Hospital des Enfants, has just died, after a long and painful illness. One of the most distinguished pupils of Trousseau, he particularly distinguished himself, like his eminent master, in the operation of tracheotomy; not so much for his manual skill, however, in its performance, as for his great discrimination in the selection of appropriate cases and their able management.

#### RHABDOMYOMA OF THE ORBIT.

RHABDOMYOMA, or a tumour containing striated muscular fibres, is a very rare affection, and Dr. S. Bayer, of Stockholm, who describes a case of the kind in a recent number of the *Nordiskt Medicinskt Arkiv*, has met with only twelve instances of it in the course of his reading. His own case was that of a tumour extirpated from a little boy three years old, and which had been observed two months before the operation, penetrating between the globe of the eye and the lower eyelid, and pushing the former from below upwards. The tumour was of an oval form, resembling a fibrous tumour in its consistence and in the appearance of the cut surface. On microscopical examination it was found that the neoplasm was chiefly composed of muscular fibres with transverse striæ, but that the greater part of these fibres had at the same time longitudinal striæ. These striæ were either pressed against one another, forming fasciculi arranged in different ways, or diffused in an intermediate substance rich in nuclei. At the points where the fibres are pressed against one another they interpenetrate by points. Caustic potash immediately dissolves the nuclei of the fibres, but causes the distinct appearance of the transverse striæ, while acetic acid causes the nuclei to appear clearly, but dissolves, although slowly,

the transverse striæ. A longer treatment with caustic potash or acetic acid causes the dissolution of the whole, as happens in striated muscular fibres, which the striated elements of the tumours resemble, moreover, in this respect—that they present the same double refraction when examined by polarised light. An identical method of examination demonstrated the same property of refraction in the fibres of a tumour of a rhabdomyomatous nature preserved in the Pathological Institution of Stockholm. The mass which combines the muscular elements in the tumour now described by Dr. Bayer is a delicate granular substance with round nuclei, which, with preparations of osmium, are dissolved in cellules provided with broad or slender prolongations, anastomosing with those of the adjacent cellules. As to the question of the origin of the tumour, the author can give no other explanation than by admitting the presence of foetal muscular elements, which probably remained at the base of the orbit, and to the subsequent development of which the neoplasm now described was probably due.

#### SCHOOL HYGIENE.

THE eighth lecture of the series at present in course of delivery at the Parkes Museum of Hygiene was given by Dr. C. H. Ralfe, of the London Hospital, on Thursday evening, July 12, the subject being "Hygiene in Schools." The lecturer, after dwelling on the importance of the subject, pointed out that great improvements had taken place of recent years in the general management of schools, but hand-in-hand with these improvements other conditions had arisen which had a tendency to lower the average standard of health at our chief centres of education. Among these the competitive system must be reckoned as the chief, which, by introducing an element of strain, anxiety, and excitement at a period when growth and development were most active, proved highly prejudicial. But this system, as well as other conditions, had to be accepted, and the evils resulting from them combated by an increased care and attention to hygienic details. The ill effects of defective drainage and a dangerous water-supply were dealt with, and the construction of the school buildings, and the arrangement of studies and dormitories were fully considered, together with the question of ventilation and lighting. The channels by which epidemic disorders were introduced into a school, and the best means of dealing with an outbreak when it occurred, were next discussed. A considerable portion of the lecture was devoted to a consideration of the vexed question of schoolboy food. The lecturer insisted it should be plain and simple in character, sufficient in quantity, excellent in quality, and adapted to the special requirements of growth and development, according to the age of the boys, whilst the most minute attention should be paid to its cooking, and that it should be served hot and in a palatable and relishing form. The influence of school work and play on the boy's health and development was discussed. Sound, honest, hard work, the lecturer was convinced, never did a healthy boy any harm, but it was the system of forcing minds at high pressure which was accountable for many lamentable breakdowns. For a similar reason, athletic sports, which required previous training and often a severe strain, were not advisable till the frame was set, the ordinary pastimes of cricket and football being most suitable for the growing lad. In conclusion, the lecturer insisted on the necessity of adequate medical supervision in order to carry out effectually the details requisite for the maintenance of perfect sanitary and hygienic conditions, and alluded to the excellent results that had followed on the appointment of medical officers at Rugby and Marlborough to attend to these details, and



who, by constantly mixing with the boys, obtained an intimate acquaintance with their physical conditions; whilst the great advantage of medical supervision lay in the power of being beforehand with epidemics. In schools where it was thoroughly adopted, the necessity for breaking up a school on account of scarlet fever, etc., was found to be of extremely rare occurrence.

#### THE HEALTH OF KENSINGTON FOR THE MONTH OF JUNE LAST.

In his report on the health and sanitary condition of the parish of Kensington for the four weeks ended June 16 last, Dr. Orme Dudfield, the Medical Officer of Health for the district, remarks that the state of the public health in that locality continues favourable, so far as can be judged from the returns of mortality, which show a death-rate of only 14·7 per 1000, as against 16·6, the decennial average. The death-rate in the metropolis during the same period (18·5 per 1000) was 0·9 per 1000 below the decennial average, and 3·8 above the rate in Kensington. The deaths from the principal diseases of the zymotic class were 13, or 19 below the decennial average, corrected for increase of population. Four deaths were attributed to diphtheria, and 26 cases of scarlet fever were recorded—viz., 11 in the district north of the Uxbridge-road, and 15 in the remainder of the parish south of that road. Of the cases in the south district, 5 were back cases which should have been recorded in January; of the cases in the north district, 4 (concealed) belong to April. All the sufferers in both districts were children thirteen years of age and under. In the north district 6 cases were removed to hospital, there was refusal to go in 1 case, and in 4 cases (concealed) removal was unnecessary. Of the cases in the south district, 6 were removed, 1 was concealed, there was refusal to go to hospital in 2 cases, and removal was unnecessary in 6. Nine of the children had been in attendance at different schools, but only one death was registered from the fever in the four weeks under notice.

H.R.H. THE PRINCE OF WALES has accepted the position of Vice-Patron of the Royal Hospital for Diseases of the Chest, City-road, which was founded by H.R.H. the Duke of Kent, A.D. 1814.

A MEETING of Volunteer medical officers will be held at Liverpool, in one of the section rooms, on Wednesday, August 1, at 9.30 a.m., to hear an address from Surgeon-Major Evatt, A.M.D., on "Volunteer Medical Organisation." Several resolutions will be proposed. All Volunteer medical officers are invited to attend.

IT is understood that Dr. Banks, Physician-in-Ordinary to Her Majesty the Queen in Ireland, and Regius Professor of Physic in the University of Dublin, has been offered the honour of knighthood, which he has gratefully and courteously begged to be allowed to decline.

At a meeting of the trustees of the Astley Cooper Prize Fund, held at Guy's Hospital on July 20, the Triennial Prize of £300 was awarded to Dr. William Alexander, of Liverpool. The subject of the essay was "The Pathology and Pathological Relations of the Disease known as Osteoarthritis or Chronic Rheumatic Arthritis."

THE Court of Common Council, London, has referred to the Coal, Corn, and Finance Committee, for consideration and report, two petitions praying the Court to take such steps as may be necessary to secure the Alexandra Park as an open space for the use, recreation, and enjoyment of the public.

WE learn that, with the view of preventing the importation of cholera into the United States, telegraphic instructions have been received at the American Consulate-General, London, to appoint a medical inspector to examine all vessels clearing for the United States from London and Liverpool; and Dr. J. Higham Hill has been appointed to that office in London.

#### MEDICAL MATTERS IN PARLIAMENT.

##### HOUSE OF LORDS—FRIDAY, JULY 20.

*Army Hospital Services.*—Viscount Bury called the attention of the House to the report of the Army Hospital Services Inquiry Committee, and moved a resolution that, while the individual medical officers in Egypt behaved admirably well, the system under which they worked did not successfully stand the strain put upon it; that the military authority exercised by medical officers was inconvenient; and that discipline in hospitals ought to be administered by combatant officers, leaving the medical officers medical duties only; also that medical officers ought to be attached to regiments instead of being detailed for duty day by day from station and other hospitals. He contended that the evidence before Lord Morley's Committee amply justified the resolution. He described the change made in the Army Medical Administration in 1873, and maintained that to the alteration then made was due the fact that the Army Hospital Service had somewhat broken down in the Egyptian campaign. He was careful to say that the conduct of the medical officers was beyond all praise, that the individual officers did well, and there was nothing whatever to be said against them. Everything they could do was done; and it was the system that was to blame. He said, however, that Lord Wolseley had stated, before the Committee, that he found in the hospitals at Ismailia and Cairo a great many things deserving disapproval, and that there was no excuse for them. After the third day the hospitals should have been as well supplied as a hospital in London, there being no difficulty in obtaining any amount of servants, food, and necessary materials. Lord Wolseley and other officers had stated that the surgeons had not the power of maintaining discipline among their subordinates; and their evidence went to support his contention that combatant officers ought to be placed in the hospitals to maintain discipline. Colonel Maurice, who was on the staff of the General Commanding-in-Chief, had been woke up, while lying wounded in the tent, three or four times in the course of a night; and once he told a servant to get him some food, but the cook in a very uncivil way refused it, and the medical officer, while admitting that an incivility had occurred, said that Colonel Maurice must remember not only that he was an officer, but that he was his patient. Colonel Maurice was entirely of opinion that the discipline of the hospitals ought to be carried out by combatant officers, not by medical men, on account of the want of knowledge on the part of the latter. Lord Bury dwelt also on the evils arising from the frequent change of medical men under the present system. —Lord Morley said it was admitted that there were undoubtedly some defects in the administration and general management of the hospitals during the campaign in Egypt; but the remarkable nature of the service must be borne in mind. The peculiarity of the campaign was its extreme rapidity. On landing at Ismailia the army had to move into the desert at once, before the hospital equipment had been landed. The hospital at Ismailia had not been intended to be a base hospital, and was fitted as a field hospital only. He quoted the medical statistics of the campaign as proving in a very remarkable degree that even if there had been, in some instances, undue delay in getting the hospitals into perfect order, it had not been productive of any serious consequences to the sick. The Army Hospital Corps was not in a satisfactory state; that must be admitted: there were admirable nurses in it, but there were also some who were indifferent. The difficulty was how to recruit the Corps. All our civil hospitals were nursed by women; and there was no large body of men from whom nurses could be chosen in cases of



emergency. He hoped when the Secretary of State for War had had time and opportunity to consider the recommendations of the Committee there would be improvements in the pay and position of the nurses, and in the co-ordination of the different branches of the Corps. The Committee had arrived at the conclusion opposed to Lord Bury's proposition that every military hospital should be presided over by a military commandant. Such a system was hardly possible, seeing that there were 182 station hospitals in England and Ireland alone, and it had never been proposed that these should have military governors like Netley and Woolwich. The Committee felt the great importance of unity of control, and that it should be vested in a medical and not in a military officer. The hospital which had a medical commandant was as well managed as a hospital could be; and the military hospital at Netley had duties in connexion with the discharge depôt which rendered the presence of an officer of high position necessary. The majority of the Committee were not in favour of reverting to the old system of attaching medical officers to every battalion and every corps of troops. He admitted the importance of the witnesses in favour of such a system. But it would be impracticable, he thought, in war, and therefore ought not to be adopted in peace. And, moreover, a medical officer would deteriorate if his only duty was to look after healthy troops, and he was debarred attending hospitals. The advantages that might be derived from the change would not be commensurate with the cost of the experiment. A notion prevailed, and had been given expression to that day, that a gallant colonel had been reprimanded for visiting some of his men in hospital. That visit had been paid when the medical officers were engaged in the wards; and it would be very inconvenient if officers visited their men at such a time; but it must not be supposed that regimental officers were prohibited from visiting station hospitals. Any such prohibition would be directly contrary to the wishes of the medical officers.—The Duke of Richmond thought the alteration in our army medical system had been the worst of the many changes introduced into the Army during recent years.—The Duke of Cambridge wished to improve on the present system. He did not think that there was any other army in which there was not a medical officer attached to the regiments. The old system was a very good one, but, as it had been so much altered, we could not go back to anything that had been so thoroughly altered. But if any one of their lordships wanted medical advice, he would not like to put himself into the hands of different doctors; and men were now sent about so much that they had five or six different surgeons to deal with them. It was all matter of arrangement. He desired that a medical officer should be attached absolutely to a regiment for two or three years, and should perform all the medical duties connected with that regiment. He could not see why they should not attend to all the ordinary medical requirements of a regiment, and, having done that, attend also at a station hospital. He had no objection to station hospitals; on the contrary, he thought they were better organised and less extravagantly carried on than their military hospitals. But he could not see why the station hospital system as it existed should not be combined with the moderate regimental system which he had suggested. He did not think, however, that medical men were the proper persons to carry out discipline in hospitals. He was himself President of the London Hospital, and a civilian lived on the spot who conducted the supervision of that establishment, and it appeared to him that they ought to have a military man to look after the wants and requirements of a military hospital, quite independent of the medical officer who might be in charge of the sick.—Some other peers spoke strongly against the present system, but the result of the discussion was that Lord Bury's motion was withdrawn.

HOUSE OF COMMONS—FRIDAY, JULY 20.

*The Cholera in Egypt.*—Lord E. Fitzmaurice, in reply to questions from Lord H. Lennox and other members, said that Dr. Hunter had started for Egypt; and that Mr. Micville, English delegate to the Quarantine Board, and Dr. Mackie, Consulting Physician to the Board, were also attached to the mission; that it was true that in Eastern cities funerals and burials were conducted with great carelessness, but he should make it a special and immediate

duty to call Sir E. Malet's attention to the accounts of the way in which the funerals of persons who had died from cholera were managed; that this was among the subjects that would receive Dr. Hunter's earliest attention; and that, as everything possible was being done to assist the Egyptian Government, it would be highly dangerous to do anything that might tempt that Government to throw the responsibility of repressing the disease on Her Majesty's Government, which had not, at present at any rate, the necessary staff or means to deal with the disease on the spot.

MONDAY, JULY 23.

*The Cholera in Egypt.*—Lord E. Fitzmaurice, in reply to questions from Mr. Onslow and Lord E. Cecil, said: I have to state that Sir Edward Malet has requested the Egyptian Ministers at Cairo to associate with them Generals Stephenson, Wood, and Baker, to form together a commission with full powers to order and execute measures to be taken against cholera. Twelve English medical officers are being selected for service in Egypt, and will proceed this week to Cairo. The Viceroy of India has also been asked to despatch—if the Egyptian Government require them—forty experienced Mohammedan hospital assistants for general cholera duty. I may add that the deaths from cholera reported to have taken place at Cairo during the twenty-four hours ending at 8 a.m. on the 22nd amount to 381.—The Marquis of Hartington said: I have received a telegram, dated the 23rd inst., from the General Officer commanding at Cairo, in which he states: "Black Watch moved to camp near Suez, 20th. One fatal case of cholera eighteen hours after arrival; a second case just reported, doing well. General health of troops as last telegram." An additional number of doctors have been sent out, and more are under orders to go.—Mr. Onslow asked if all the doctors who were being sent out had had practical experience of cholera in the East.—Lord E. Fitzmaurice replied: The advice of Sir Joseph Fayrer has been taken, and no appointment will be made without his approval. He has had great experience in India, and I believe I may say that all, or nearly all, the doctors who are being sent out have also had extensive Indian experience.

*Emigrants at Queenstown.*—Mr. Moore having asked the President of the Board of Trade whether his attention had been called to the absence of proper shelter or accommodation for emigrants at Queenstown while undergoing medical inspection,—Mr. Chamberlain replied, that he had communicated with the Board of Trade officials at Queenstown, and had been told that the representatives of the White Star, Guion, and Allan lines have well-sheltered accommodation for over 1000 persons, with good sanitary arrangements, the distance from the place where they are medically inspected to the tender being but a few yards. The Inman Company's premises are also commodious, sheltered, and provided with all necessary appliances; and he was further told that the same remarks apply in all respects to the accommodation provided by the other shipping companies at Queenstown.

**DAMAGES FOR THE DESTRUCTION OF EXAMINATION PAPERS.**—The plaintiff was a lady medical student, who graduated at Pulte Medical College in 1883. The examinations at the close of the term were conducted in writing, and Dr. Hartshorn, the Professor of Surgery, wrote a list of twenty-three questions on the blackboard, requiring the students, in his presence, to write the answers. The plaintiff wrote about seventeen pages of MS. in answer to those questions, and handed it to the Professor. Having determined to publish the results of her examination in pamphlet form, as an aid on starting in practice, she went round to the Professors of the Faculty, requesting a return of her answers or copies of them. All the professors returned them except Dr. Hartshorn, who, instead of giving her the papers or copies of them, threw them into the fire. This strange conduct could not be explained satisfactorily, and, upon the facts and testimony as to the value of the papers, the Court assessed the damages at \$300.—*New York Med. Record*, July 7.

**LITMUS PAPER.**—Dr. Squibb has substituted for the ordinary blue and red litmus paper a single colour, viz., purple. This purple litmus paper turns red with acids, and blue with alkalies. It is claimed to be much more delicate and convenient.—*Louisville Med. News*, June 23.



## FROM ABROAD.

## TREATMENT OF SYPHILIS AT VIENNA.

A CORRESPONDENT of the May number of the *Canada Medical Journal*, writing from Vienna, gives an account of the mode of treatment of syphilis at the General Hospital of that city. This Hospital contains 400 beds for the disease, and there are three professors—Zeissl, Neumann, and Auspitz,—six *Privat-docenten*, and six assistants. Prof. Neumann has recently succeeded the late Prof. Sigmund, whose efforts did so much to give this branch of the medical school its celebrity. The treatment still pursued is essentially that of Prof. Sigmund.

1. *Treatment of the Local Sore.*—The term *hard chancre* is now never used, as an infecting sore may be either hard or soft. The mineral acids or the thermo-cautery are never used for its destruction, it being considered that treatment of the sore by escharotics, after forty-eight hours, is useless in preventing infection. The removal of infecting sores by the knife or scissors has been given up, for it was never found effectual in preventing infection. The treatment of the chancre is always mild. When there is an ulcerating surface, iodoform is invariably used in the form of spray (one part being dissolved in six of sulphuric ether). This leaves on the surface a fine coating of iodoform, which is much better than dusting it on, as it adheres well to the surface. After a few days' use of this, the sore takes on an healthy action, and when the granulations are healthy a 2 per cent. solution of carbolic acid is substituted. When the chancre has healed, leaving a nodule, the best application is one part of corrosive sublimate to fifty of water, or a diluted mercurial plaster.

2. *Secondary Symptoms.*—It is considered that there are no known means of preventing these; but Sigmund found from the observation of many thousand cases left untreated that in 40 per cent. they are so slight that in a great number of instances they might be overlooked by the patient. The treatment of the secondary stage is not commenced until the particular form that it assumes is evident. If the patient has an excellent constitution and good appetite it is not considered necessary to give him iodine or mercury, good health and appetite with strict attention to cleanliness being regarded as sufficing. During the two or three years that this stage is supposed to last the patient has two or more relapses, and as a relapse is always more difficult to get rid of, it is recommended when the first attack of secondary symptoms is slight not to give iodine or mercury, but to reserve these agents for a later period; for if they are used for the first crop of secondary symptoms they will be found to have much less effect on the second or third crops than if they had not been used for the first. So also is this true of the third stage of the disease. Moreover, if iodine is used for the treatment of the second stage of syphilis, it will be found to have much less effect than mercury over the tertiary symptoms; and if mercury is used in the secondary stage it will have less influence over the third stage than iodine. As a rule the practice is to give iodine during the secondary stage, when the symptoms are of a pronounced character. If they do not yield, or the iodine is ill borne, then mercury is given. Mercury is also given if the case is a particularly severe one. Iodine is considered to be as useful during the secondary as it is during the tertiary stage. In either stage it is not, like mercury, a direct antidote of the poison, but acts indirectly by favouring tissue-changes and increasing the patient's power of resistance. Whatever preparation of iodine or mercury is used, it only does harm if digestion is materially interfered with. This is a point of great practical importance, and one too often neglected. In scrofulous and tuberculous patients it often happens that neither treatment has good effect until iron or cod-liver oil has been taken for some time. The rule generally followed is to give the iodides in the moist, and mercury in the dry secondaries. This division into dry and moist secondaries is regarded as of great importance, as it is always found that dry eruptions occur in the weak and badly nourished, while the moist occur in the strong and well-nourished.

3. *Administration of Mercury.*—Inunction is the method

most commonly employed, and for the great majority of cases is the most trustworthy, as by no other means can the system be so quickly influenced. In gummata of the nasal septum, roof of the mouth, etc., when hours are precious in order to save the hard tissues from destruction, it should always be used; and in syphilitic lesions of the nervous system (whether a circumscribed gumma, or the blocking of an artery by cellular infiltration), where irretrievable damage will happen in a very short time, the inunction should always form part of the treatment. Mercury should always be given; and to treat such cases by the iodide alone is regarded by Neumann as only half treatment. After the third inunction mercury can generally be found in the urine, and after the fifth there are distinct signs of stomatitis. The preparation generally used is a finely divided ointment, made up of one part of mercury to two of lard. A piece not larger than a pea is rubbed slowly in until the parts are dry, and the desired quantity has been used; half an hour being always required (and often an hour) before a drachm can be rubbed in. On the sixth day the patient gets a warm bath, and on the seventh day begins rubbing in again. The process is continued until the symptoms disappear, and from thirty to fifty rubbings may be required; and it is extremely rare to find a case in the second stage resisting sixty rubbings. A very important point is to insist upon keeping the mouth and gums clean, or stomatitis, which will interrupt the treatment, sets in. The remedy above all others which is best for preventing too severe or too early stomatitis is tar, and this forms also the best remedy when stomatitis has occurred. It is surprising how soon it effects a cure even in very severe cases. Slight stomatitis is produced after the fifth rubbing; and when the patient after ten or twelve rubbings has not slight salivation, with coppery taste and swelling of the gums, it is a certain proof that he has rubbed in badly. In some people the rubbing produces eczema, and this, with the time required, are the only objections to the method. The time may be diminished by employing one part of mercury with two of green soap, the mercury being so finely divided that it cannot be seen with a lens, the addition of a very small quantity of glycerine assisting to divide the mercury. From one to one and a half drachms of this may be rubbed in in ten minutes.

4. *Internal Administration of Mercury.*—Whatever preparation is used it is apt to cause catarrh of the stomach. It is also a very inexact method, as we can never be sure what amount is absorbed. Calomel is used for children and weak persons, and is especially good in hereditary syphilis. It is usually given in powder with sugar—from one-quarter to three-quarters of a grain three times a day to an adult. Corrosive sublimate is only used for adults.

5. *Subcutaneous Injection.*—This is extensively used in Neumann's wards, but only in the secondary stage and the slight forms of the tertiary. For the severer forms of the latter its action is too slow. Liebreich's formiate of mercury is the preparation now used; and in more than two hundred cases it has always succeeded, only twice having been followed by abscess. In every hundred grains there is one grain of mercury. Until latterly corrosive sublimate was much used in hypodermic injections, but it is apt to cause a burning sensation which lasts for two or three hours, although it is rare for it to be followed by abscess. Bamberger's peptonate and albuminate of mercury are also used, and give rise to no irritation; but having to be prepared daily, they are not likely to be widely used. In using any preparation of mercury hypodermically, care should be taken to inject the subcutaneous cellular tissue, and not the skin or muscles. The back, three or four inches from the spine, is the best situation. It must always be recollected that mercury is excreted very slowly, so that considerable quantities can be found in the urine three weeks after any has been used. After a month's inunction it can be detected eight months afterwards, and Prof. Ludwig has several times found it in the urine of some of Sigmund's cases three, four, and five years after they had stopped using it.

6. *Iodine.*—Three preparations of this are used, the iodide of sodium containing 60 per cent., iodide of potassium 80 per cent., and iodoform 93 or 94 per cent. The first of these is best for children and weak persons. Iodoform is only employed hypodermically, one part dissolved in six parts of ether being the formula used. It gives rise to no irritation, and its injection is not painful. In mild cases twenty in-



jections will suffice; in the severer forms fifty are often required. Iodoform is considered as useful as iodide of potassium in either the secondary or tertiary stage.

COLLEGIATE STATISTICS.

At the last meeting of the Council of the Royal College of Surgeons of England, the following report from the Board and Court of Examiners—showing the number of candidates who have presented themselves for the Primary and Pass Examinations for the diploma of Member of the College during the collegiate year 1882-83, with the numbers who have passed and have been rejected, from each medical school, during that period—was received, and ordered to be published, viz.:—

Primary Examinations, 1882-83.

Medical School.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	196	123	73
Guy's	97	79	18
University College	82	57	25
London	71	56	15
St. Thomas's	64	44	20
King's College	54	39	15
St. George's	50	31	19
Charing-cross	43	26	17
Middlesex	36	20	16
St. Mary's	28	19	9
Westminster	19	16	3
Manchester	78	53	25
Leeds	34	26	8
Cambridge	33	27	6
Bristol	24	16	8
Birmingham	21	18	3
Liverpool	19	16	3
Newcastle-on-Tyne	17	12	5
Sheffield	6	2	4
Dublin	9	8	1
Belfast	1	1	—
Galway	1	1	—
Edinburgh	57	43	14
Glasgow	20	14	6
Aberdeen	5	3	2
Toronto	6	6	—
McGill Coll., Montreal	2	2	—
Ontario	1	1	—
New York	2	2	—
Cincinnati	1	1	—
Harvard	1	1	—
Calcutta	2	1	1
Madras	1	1	—
Bombay	2	2	—
Hanover	1	—	1
Miscellaneous	35	28	7
Totals	1119	795	324

Under the head of "Miscellaneous" are counted all students who have pursued their studies at more than one medical school. The following statement shows the schools to which such students belong, viz.:—

Passed, 28=Calcutta and Glasgow, 1; Belfast and Guy's, 1; Edinburgh and University College, 3; Calcutta and Edinburgh, 1; Cambridge and Charing-cross, 1; Toronto and Middlesex, 1; Cambridge and St. Bartholomew's, 1; Liverpool and St. Thomas's, 1; St. George's and St. Thomas's, 1; Cambridge and London, 2; Liverpool and Guy's, 2; Cambridge and University College, 1; Edinburgh and St. Bartholomew's, 1; University College and King's College, 1; Newcastle and London, 1; Glasgow and Westminster, 1; Cambridge and Guy's, 1; McGill College (Montreal) and Manchester, 1; Cambridge and St. Thomas's, 3; Madras and University College, 1; New York and Guy's, 1; Manchester and Guy's, 1.

Referred, 7=Cambridge and University College, 1; Cambridge and St. Thomas's, 1; New York and Middlesex, 1; St. Thomas's and Charing-cross, 1; Manchester and Edinburgh, 1; Madras and University College, 1; Westminster and Charing-cross, 1.

Pass Examinations, 1882-83.

Medical School.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	107	67	40
Guy's	106	71	35
University College	86	54	32
London	46	27	19
St. Thomas's	44	33	11
King's College	52	25	27
St. George's	17	11	6
St. Mary's	27	16	11
Charing-cross	14	10	4
Middlesex	24	17	7
Westminster	15	10	5
Leeds	14	8	6
Manchester	34	25	9
Liverpool	9	3	6
Birmingham	15	11	4
Newcastle-on-Tyne	12	6	6
Sheffield	5	3	2
Bristol	6	3	3
Dublin	6	5	1
Galway	1	1	—
Belfast	1	—	1
Edinburgh	28	20	8
Glasgow	6	2	4
Aberdeen	1	—	1
Bombay	1	1	—
Calcutta	2	2	—
Toronto	2	1	1
McGill Coll., Montreal	1	—	1
Kingston	1	—	1
New York	2	—	2
Cincinnati	1	1	—
Miscellaneous	83	55	28
Totals	769	488	281

Under the head of "Miscellaneous" are counted all students who have pursued their studies at more than one medical school. The following statement shows the schools to which such students belong, viz.:—

Passed, 55=Birmingham and Edinburgh, 1; Cambridge and Leeds, 1; Cambridge and St. Bartholomew's, 2; Cambridge and St. Thomas's, 3; Cambridge and King's College, 2; Cambridge and St. George's, 4; Newcastle and St. George's, 1; Birmingham and Charing-cross, 1; Liverpool and University College, 5; Calcutta and London, 1; Aberdeen and London, 1; McGill College (Montreal) and London, 1; Melbourne and Guy's, 1; Cambridge and London, 1; Manchester and Edinburgh, 1; St. Bartholomew's and Edinburgh, 1; Sheffield and St. Thomas's, 2; Charing-cross and Newcastle, 1; Manchester and Guy's, 1; University College, Westminster, and Edinburgh, 1; Cambridge, Manchester, and St. Bartholomew's, 1; Newcastle and Guy's, 1; Cambridge and Guy's, 3; Toronto and University College, 1; Liverpool and Guy's, 1; Madras and University College, 2; Newcastle and University College, 1; Kingston and Birmingham, 1; Bristol and University College, 1; Dublin and St. Thomas's, 1; Newcastle and St. Bartholomew's, 1; Bristol and Middlesex, 1; Calcutta and St. Thomas's, 1; Edinburgh and Guy's, 1; Middlesex, Edinburgh, and St. George's, 1; Cambridge and St. Mary's, 1; Newcastle and King's College, 1; McGill College (Montreal) and St. Mary's, 1; Toronto and St. Bartholomew's, 1; Manchester and St. Thomas's, 1.

Rejected, 28=Madras and University College, 1; Dublin and St. Thomas's, 2; Hobart Town, University College, and London, 1; Cambridge and St. George's, 1; Liverpool and Guy's, 2; Cambridge and St. Mary's, 2; Madras and University College, 2; Glasgow and Guy's, 2; Cambridge and London, 1; Calcutta and Edinburgh, 1; Toronto and St. Bartholomew's, 1; Calcutta and Middlesex, 1; Leeds and Sheffield, 1; New York and St. Mary's, 1; Calcutta and St. Thomas's, 1; Cambridge and St. Bartholomew's, 1; Edinburgh and Charing-cross, 1; Dublin and London, 1; St. Mary's and University College, 1; Dublin, Edinburgh, University College, and London, 1; University College and Leeds, 1; Toronto and Middlesex, 1; Harvard and Vienna, 1.

THE EGYPTIAN CENSUS.—These returns have just been completed, and show that the population of the country comprises 3,393,918 males and 3,404,312 females.



## THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

ON Thursday, the 19th inst., a special meeting of the Council and Fellows of the College was held, for the purpose of conferring the Honorary Fellowship upon Surgeon-General Crawford, the Director-General of the Army Medical Department, and Surgeon-General Sir James Hanbury, K.C.B. Dr. William Ireland Wheeler, President of the College, occupied the chair.

In presenting the certificate of Honorary Fellowship to Surgeon-General Crawford, the President recounted the history of his career, and concluded in these words:—"And lastly, sir, we are all aware of the admirable arrangements you made for the sick and wounded in the Egyptian campaign. Sir, I cannot allude to them without expressing great admiration for the perfection of your arrangements and for the astuteness and sagacity in your selection of those who were to carry out such arrangements and organisation as you conceived to be necessary; and although it may be an experiment to modify in minor details the departmental system which the Director-General has advocated, yet this system could not have worked better than it did in Egypt. The wounded were never so quickly carried off the field; never so promptly attended; never was there a war in which men were better medically attended to; never was the mortality so small in any campaign of comparative magnitude. Gentlemen, I could recount example after example where the administrative powers of the Director-General, and his scientific knowledge of surgery and its auxiliary branches, have prevented the spread of disease, have saved life, have lessened suffering, have mitigated misery. But I feel that this is already better known than I could express it, and I will conclude by saying that the Royal College of Surgeons in Ireland, anxious to confer honour where honour is due, has awarded to the Director-General of the Army Medical Department its highest degree—its Honorary Fellowship."

The President then conferred the Honorary Fellowship on Sir James Hanbury, saying—"As Principal Medical Officer of the Egyptian campaign, we congratulate you warmly for the manner in which you carried out the hospital organisation. We are fully alive to the difficulties that beset you. The way in which you conducted your comprehensive medical work cannot be spoken of too highly. Knowing Egypt as I do, where sanitary arrangements are not considered necessary, the celerity with which you established the police hospital at Ismailia cannot but be a matter for universal admiration. You established your hospitals at Alexandria, Ramleh, and Ismailia, and also the Citadel Hospital at Cairo. The preparations made for the sick in the various actions fought or anticipated are an additional proof, if such were required, of the wisdom of the Director-General in selecting you for that duty."

**ADMINISTRATION OF HOSPITALS.**—The first meeting of the representative Committee of Hospital Managers, appointed at the recent conference organised by the Social Science Association, will be held at their offices, 1, Adam-street, Adelphi, on Monday next, the 30th inst., at 4.30 p.m. The following is the constitution of the Committee (with power to add to their number):—The Earl of Cork and Orrery, K.P.; Viscount Powerscourt, K.P.; Sir Thomas Fowell Buxton, Bart.; H. W. D. Acland, Esq., M.D., D.C.L., F.R.S.; J. S. Bristowe, Esq., M.D., F.R.S.; Henry C. Burdett, Esq.; the Rev. Canon Erskine Clarke, M.A.; W. Farquharson, Esq., M.D., M.P.; S. Leigh Gregson, Esq. (Southern Hospital, Liverpool); J. J. Gurney, Esq. (Newcastle Infirmary); Timothy Holmes, Esq., F.R.C.S.; G. B. Lloyd, Esq., J.P. (General Hospital, Birmingham); Francis S. Powell, Esq.; Joseph White, Esq., F.R.C.S. (General Hospital, Nottingham).

**CASTOR OIL AND GLYCERINE.**—The following may be found in the Pharmacopœia of the Hospital of the University of Pennsylvania, and is, we believe, Prof. H. C. Wood's formula:—℞. Ol. ricini, glycerinæ, āā ʒj.; ol. menth. pip. gtt. iij.---*Phil. Med. Reporter*, April 28.

## THE THREATENED EPIDEMIC OF CHOLERA.

At the usual weekly meeting of the Board of Guardians of the South Dublin Union, held on Thursday, July 19, a circular letter from the Local Government Board for Ireland was read, calling the attention of the Guardians to the precautions necessary to be adopted for the prevention of cholera. The circular urged the propriety of appointing a properly qualified medical practitioner as special medical officer of health for the port.

The following report on the circular was subsequently adopted:—

"1. That Halpin's Pool shall be the anchoring station for suspected vessels, under Articles 6 and 10, and shall be notified as such to the Customs.

"2. That Dr. J. K. Denham be appointed medical officer under the order for port inspection, at a salary of £1 ls. per day, or portion of day, that he may be employed, and that his name and address be communicated to the Customs and Coastguard authorities.

"3. That the hospital ship be furnished with the necessary supplies.

"4. That a medical attendant on the hospital ship be designated, the name of a qualified practitioner to be submitted to the Visiting Committee next Wednesday, and his salary arranged at £1 ls. per day while employed, and also a nurse to be selected by the Master.

"5. To arrange with Sir Patrick Dun's Hospital to receive patients, if necessary, under Articles 13 and 14."

The "Articles" referred to are those of the Quarantine Order of the Irish Local Government Board, issued on July 16. It is, *mutatis mutandis*, almost identical with the similar "Order" of the Local Government Board for Ireland.

It will be observed that the South Dublin Board of Guardians contemplate using Sir Patrick Dun's Hospital as a "port hospital." This appears to be very objectionable, and for two good reasons. The Hospital is a considerable distance from "Halpin's Pool," the anchoring station for suspected vessels, and is situated in the midst of a thickly populated district of the city of Dublin. It will be an error to carry cholera patients from a quarantine station in the port into the very heart of the city, instead of treating them in an isolated intercepting hospital near the port, and apart from other human habitations.

**JEQUIRITY IN GRANULAR LIDS.**—In the *Boston Med. Journal*, June 28, Dr. Standish gives an account of thirteen cases of granular ophthalmia which have been treated in Dr. Derby's wards of the Massachusetts Eye Infirmary by means of this new remedy. It consists of the seeds of the *Abrus precatorius*, which has long been used as a popular remedy for ophthalmia in Brazil, and which has lately received the strong recommendation of Dr. De Wecker, of Paris. A lotion is prepared with a strong infusion of the seeds, and the outside of the lid is washed with this three times daily, a camel's-hair brush being also carried two or three times rapidly across the everted lower lid. Active inflammation is set up with purulent discharge, which in the course of a few days abates, leaving the disease greatly amended, the granulations of the lids gradually disappearing.

**GAULTHERIA IN RHEUMATISM.**—At the New York Medical and Surgical Society, Dr. Flint stated that the results of the trial made of this substance in thirteen cases at Bellevue Hospital served to show rather better results from gaultheria than those which are ordinarily obtained from salicylic acid. The oil of wintergreen was the preparation used, and it was administered several times a day in ten-drop doses in flax-seed tea, which renders it less disagreeable to the taste and to the stomach. In some of the cases the alkaline treatment was employed at the same time.—Dr. Ball stated that Dr. Kinnicutt had used the oil of gaultheria in a number of cases of acute rheumatism with even better results than those mentioned by Dr. Flint. It was administered in milk, and was less disagreeable when so taken than salicylic acid or salicylate of soda.—*New York Med. Jour.*, June 30.



## REVIEWS AND NOTICES OF BOOKS.

*A Practical Treatise on Diseases of the Skin, for the Use of Students and Practitioners.* By JAMES NEVIN HYDE, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago. London: J. and A. Churchill. 1883. Royal 8vo, pp. 572.

## [FIRST NOTICE.]

VERY great activity is being displayed by the American School of Dermatology. Quite recently some three or four text-books on this subject have issued from the American press, and, in addition, there is the monthly New York publication, the *Journal of Cutaneous and Venereal Disease*. This richness of production is probably to be accounted for in some measure by the increasing appreciation for books which are founded on skilled observation, and the opportunities for such observation which are largely accorded to the American dermatologists at the general hospitals. In the book now before us, the preliminary chapter on the Anatomy and Physiology of the Skin contains the newest views; especially may be mentioned those of the formation of the prickle cells of the epidermis and their relation to the surrounding cement-substance. The author adopts Heitzman's views as to the structure of the corium:—"The bundles (connective-tissue bundles) are bounded in many instances by a very dense basis-substance, representing the elastic fibres and separated from each other by narrow layers of a cement-substance, which in its chemical features is kindred to the glue-giving basis-substance of the fibrous connective tissue in general."—(Thomsa.) The so-called connective-tissue cells are embedded in this substance; and in this connexion we are told that the formerly described lymph-spaces, with which it was thought the lymphatics were in open communication, are now known to have no existence. Trophic nerves, which hitherto have enjoyed but an inferential existence, are spoken of as supplying all the secretory organs of the skin and all protoplasmic formations. The formation of the hair and root-sheath is admirably given. The hair, although nourished by the papilla, is said not to be formed from it, but is produced by the inner root-sheath exclusively. The columnæ adiposæ of Dr. Collins Warren are figured: these are the columnar-shaped prolongations extending from the bases of the hair follicles to the panniculus adiposus below; they conduct the bloodvessels to the deeper tissues of the skin. In this chapter there are many new well-executed figures and diagrams, mostly after Heitzman.

In the preliminary chapter on Symptomatology, the definition of lesions and *lesion relics* (secondary lesions) are somewhat modified from those we usually meet with in dermatological works. Dr. Hyde declares himself a true follower of the Vienna School in the chapter on Etiology, admitting the internal causes of skin-disease in the most restricted sense. Physiological processes, "dentition, menstruation, pregnancy, and the menopause disturb the physiological equilibrium, and at times render the access of other disturbing forces exceptionally facile." Heredity is declared to be of less importance than is generally supposed. After discussing hereditary syphilis, Dr. Hyde says: "Many of the examples cited of hereditary transmission of cutaneous disease are without doubt cases of coincidence which, considering the number of patients affected annually with eczema and psoriasis, for example, should not be regarded as of very rare occurrence." Lastly, constitutional diseases are said only to affect the skin indirectly, inasmuch as they tend to arrest repair, to lower nutrition, etc. It is needless to say that no mention is made of the herpetic or dartsous diatheses. In treating of general diagnosis, the systematic method of inquiry as to medical history, the information to be gathered from the physician's own observation of facts as to the patient's mode of dress, appearance, expression, etc., the directions for the thorough investigation of the particular ailment for which the patient seeks relief, are all given with a force which is most impressive. To give an example, Dr. Hyde says: "The assurances of the patient are always to be accepted with reserve. Thus, one who exposes his leg merely, stating that this is the only part of his body affected, may have concealed beneath his clothing extensive varicosities of the thigh, a typical syphilitic exanthem over the belly,

a significant scar on his elbow, an extensive patch of tinea versicolor on the surface of his chest, or a blennorrhagic discharge from the urethra, the medication of which has induced the rash for which he seeks relief."

The classification adopted is modified from Hebra. Proceeding now to the special chapters, that on Erythema Multiforme seems somewhat scant. Erythema Nodosum is included as a form of E. Multiforme. Only eight lines are devoted to this remarkable disease. Herpes Iris, which is pretty generally recognised as a variety of Erythema Multiforme, the author places provisionally under the heading Herpes, taking care to explain its alliances with E. Multiforme. Guarded mention is made of the existence of those curious but rare cases of what has been called in this country Factitious Urticaria. The peculiar measly rash of Urticaria Pigmentosa would perhaps bear fuller description; its likeness to measles and syphilitic roseola, and its almost exclusive occurrence in infancy, are points worthy of mention.

The chapter on Eczema is most complete, upwards of sixty pages being devoted to it. The four types are first described—Erythematous Eczema, Vesicular Eczema, Pustular Eczema, and Papular Eczema; afterwards special varieties are discussed. In treating of the etiology of the affection, the author speaks strongly in favour of the skin-organ itself being at fault, adducing arguments. "The autonomy of the integument must be conceded to an extent recognised in other organs of the body. There are diseases of the liver which are neither referred to the blood, the nerves, or the action of poisons, etc." As regards the relationship of eczema to gout and rheumatism, the author looks on the association as coincidence. "If figures," he says, "alone were to decide the question, these, and a larger list of maladies which have been named in similar connexion, would be included in the study of the etiology of the disease." Heitzman's researches as to the pathology of eczema show that the initial step of the inflammation is declared in the epidermis by an increase of the living matter both within and between the protoplasmic bodies, leading to an enlargement of the points of intersection of the protoplasmic network—the formerly so-called granules,—and by the shining and solid condition of that part of the network called the nucleus. Especially to be praised are the practical suggestions as to what may be called the common-sense treatment of eczema, the avoidance of sources of irritation, the importance of putting the part at rest, etc. It is quite impossible to exaggerate the judiciousness with which the formulæ for the external treatment of eczema are selected, and, what is of equal importance, the full and clear instructions for their use.

As might have been expected, the constitutional treatment of eczema receives but scant attention beyond the recognition of general conditions of ill-health and their appropriate management. "Sunlight, fresh air, a properly selected diet, suitable clothing, and due régime as to pleasure and business, may do much to aid the management of eczema: they may do more, if neglected, to furnish sources of its aggravation." As to the internal administration of arsenic, the author states that it has unquestionably aggravated more cases than it has relieved. Again, "If arsenic, which certainly does possess an influence over the skin, cannot today be demonstrated to have any therapeutic value in the large proportion of all cases of eczema, what can be said of other drugs too commonly employed for a similar purpose, which are inferior to arsenic in their cutaneous effects?" The chapter concludes with separate descriptions of local eczemas, with abundant hints for their treatment.

There is a chapter devoted to Medicinal Rashes, now necessary in all books on skin diseases. The author departs from Vienna in describing Impetigo as a disease "*sui generis*." When mention is made of its striking individuality, most English dermatologists will wonder why it is not recognised in English clinics; of course the difficulty is to distinguish it from pustular eczema. The points in diagnosis are given as follows:—"The absence of infiltration of the tissues affected; second, the absence of itching; third, the failure of the lesions to form patches; fourth, the isolation and wide separation each from the other of lesions distinctly pustular; fifth, the large development and rather persistent character of individual pustules; sixth, after involution of the latter, the evident termination of the disease, which does not, as does eczema in many cases, progress to form a freely discharging and crusting surface, the pustular being



but the initial stage of a distinct disease-process." The disease is considered to be connected mainly with local irritation. Impetigo Contagiosa is not looked upon as an independent affection. Stress is laid on the fact that it frequently follows a more or less actively contagious affection (varicella, variola, vaccinia). It is therefore considered as an Impetigo which occurs in an individual who has lately suffered with a contagious disease, and in whom the living matter of the pus still shows a feeble activity capable of exciting the protoplasm of another part of the body, or of another individual not convalescent from a contagious disease, to a similar activity. Ecthyma is described as a distinct disease—contrary again to the teaching of the Vienna School; but it is a little difficult to extract from the author's description an account of a true idiopathic affection.

There is much original matter in the chapter on Psoriasis. The statements that the efflorescence does not usually give rise to any subjective sensation, and that the disease is not hereditary, will perhaps be challenged by some. Dr. Hyde raises the question as to whether psoriasis is a disease or a deformity. The suggestions for the treatment of the disease are most complete. Concerning the use of internal administration of arsenic, the author's remarks are so original and outspoken that they may be given at length. "Personally," the author says, "I may say that, with enlarging experience, I view with greater distrust each year the benefits to be derived from arsenic in any untried case of psoriasis. The large possibilities of its failure, the repeated recurrence of the eruption, of the necessity for continuing the medication for one or two years, and even after that period of time, of witnessing a generalised development of the eruption to an extent quite equal to that exhibited at the outset: all these considerations should certainly have some weight in the mind of an ordinarily prudent man. Is the ultimate result in such cases worth the cost by which it is obtained? In such cases, certainly, it would seem not. In the others, where, under a judiciously directed arsenical course, the eruption slowly disappears, and fails to recur, the value of the treatment is incontestable. Personal observation and experience lead me to believe that the patients in the last-named category decidedly outnumber the others." Later on, again—"In many cases, I am fully persuaded, heterodoxical though the belief may be, that psoriasis calls for no treatment. Such are the extremely indolent cases where the patches exist in middle-aged adults on parts of the body entirely covered with clothing."

With Duhring the author admits Pityriasis Maculata et Circinata. As yet the disease has not found a settled place in our systems.

Pemphigus Foliaceus is dissociated from the disease Pemphigus, and classed with Pityriasis Rubra under the title of Dermatitis Exfoliativa generalis, to which category the generalised stage of Lichen Ruber is also referred. The latter disease is divided, according to Vienna teaching, into Lichen Ruber acuminatus and Lichen Ruber planus. The former variety, which is characterised by pinhead, conical, reddish papules, the author has not seen in America: it certainly is hardly recognised in this country.

Duhring's name, Molluscum Epitheliale, is adopted for the disease known in this country as Molluscum Contagiosum. Its contagiousness is hardly believed in by the author. The very striking cases in which the disease occurs simultaneously on the maternal breast and infant's face, and those in which different members of the same family are simultaneously affected, are stated by the author to be generally explicable as coincidences. The non-glandular theory of origin of the disease is supported. With other American dermatologists, the author maintains the identity of Morphea as distinct from Scleroderma, Duhring's points in their differential diagnosis being given.

The term Xeroderma is retained for the disease originally described under that name by Hebra—the mild form of Ichthyosis usually known as Xeroderma in this country being styled Ichthyosis Simplex. Lupus is said to be as widely separated in its clinical features from Scrofula as is Lupus Erythematosus. English readers will be surprised at the statement that ordinary Lupus is as rare in America as Lupus Erythematosus. Preference is given to the treatment by mechanical means.

As regards the etiology of Keloid, the author says it occurs both spontaneously and as a hypertrophic development from a simple scar.

*On the Sea-Bathing and Mineral Waters of Scarborough.* By WILLIAM ALEXANDER, M.D., F.R.C.P. Lond., Senior Physician to the Halifax Infirmary. London: Longman and Co. 1882.

THE caustic remarks so often made on publications of this description, to the effect that their scarcely-veiled intention is to puff the places of which they treat, is not applicable in the present instance; in fact, the first half of the treatise, which treats of sea-bathing, does so entirely without reference to Scarborough, and would be useful to bathers at any seaside place—that is to say, if such people ever troubled themselves to read about "the bad effects" or "the best time and season" for bathing. The second part—or, more correctly speaking, the second treatise, for the two parts are paged as distinct works—does indeed treat of the medicinal and physical effects of the Scarborough waters, but these are not unduly praised at the expense of the mineral springs of other localities. Dr. Alexander may, therefore, be acquitted of any marked prejudice in favour of the mineral waters of Scarborough; and his object, it may be supposed, in publishing the work under notice was to afford a little semi-professional reading for the maturer ladies of both sexes who drink the various "waters" one after another for the express purpose of curing nothing in particular.

*The Mineral Waters of Aix-les-Bains and Marlioz: Practical Considerations on their Action and Application.* By LÉON BLANC, M.D. Paris, Medical Inspector of the Baths of Aix, Physician of the Thermal Hospital. London: J. and A. Churchill. 1883. Small 8vo, pp. 60.

THE baths of Aix have long been known for their remedial powers in several maladies, and the present extensive buildings which constitute the thermal establishment in the town were commenced in 1772, and were enlarged at successive periods until last year. Dr. Blanc's little book describes in detail the different departments of the thermal establishment, consisting of douches, bath-rooms, swimming-baths, vapour-baths, halls of inhalation, halls of pulverisation, and drinking-fountains; and there are some illustrative woodcuts, showing the construction of the various kinds of apparatus employed, and their modes of application. The waters of Aix appear to owe but little to the presence of their mineral constituents, for, like those of Malvern and Gastein, they have hardly any solid matters in solution. They contain, however, a considerable amount of sulphuretted hydrogen, hyposulphite of sulphur, carbonic acid gas, and nitrogen. The temperature of the waters is warm (on the average about 100° Fahr.), but it may be varied according to circumstances. Whether it be from their gaseous constituents, or their temperature, or the mode of their application, or the regimen prescribed during their use, or the salubrity of the climate, or all these conditions combined, it is certain that a course of treatment at Aix is found of great service in many deranged conditions of the human system, and Dr. Blanc points out the special circumstances in which such treatment is beneficial. To those invalids who are contemplating a sojourn at Aix-les-Bains, this little manual will be of much service; and to the medical profession it may offer some useful hints when recommending the locality to their patients.

*Descriptive Catalogue of the Pathological Museum of University College, Liverpool.* Printed for the Medical Faculty of the College. 1883. Pp. 268.

THIS Catalogue is not intended merely as a guide to the Museum, but also, and perhaps more, as a means of teaching pathology to students, using the Museum specimens in illustration whenever possible. Accordingly, in each section the description of the specimens is preceded by some general remarks on the pathology of the diseases about to be referred to. This plan is one that commends itself to us very strongly. Students often find it very dull work going through the specimens in a museum, even with the help of a good catalogue; but when that catalogue is made a sort of handbook of pathology, illustrated by mounted specimens instead of by drawings, we believe that a new interest will be given to the study of museum specimens. Of course it must not be forgotten that there are many diseases that cannot be studied except in a recent specimen; foremost



among these is pneumonia, and therefore when we read—"C. 40. This is said to be a piece of pneumonic lung in the stage of grey hepatisation, but nothing is to be learnt from it,"—we are tempted to ask why the specimen was preserved: perhaps because it is the only specimen of acute pneumonia in the Museum. The Dean and his colleagues have acted wisely in getting their Museum put in order and their catalogue printed in time for the meeting of the British Medical Association.

*The Latin Grammar of Pharmacy.* By JOSEPH INCE, F.C.S., F.L.S. Second Edition. London: Baillière, Tindall, and Cox. 1883. Pp. 160.

THIS little work is intended for the use of medical and pharmaceutical students. We should like to think that the former had received a sufficiently good education at school to be able to dispense with any instruction in this line. Such, we fear, is not, and never will be, the case. The last half of the book is devoted to the subject of Latin prescriptions, from which we suspect that not a few physicians might glean something they did not know before. The book seems well adapted to meet the requirements of those for whom it is intended, and the author has evidently done his best to make everything he has to say intelligible.

*Knapsack Handbook; or, Pedestrian's Guide.* By WILLIAM WHITE, A.C., F.S.A., F.R.I.B.A., etc. Second Edition. London: Edward Stanford, Charing-cross. 1883. Pp. 27.

MR. WHITE's unpretentious little pamphlet may be heartily recommended to pedestrians who are preparing for their first knapsack tour. The outcome of the personal trials and practice of "an old pedestrian, with an experience of now forty years," it describes what is required by the ordinary walker who desires to be free from all unnecessary *impedimenta*. Simply and easily written, it will be found a very useful guide to the walking traveller on the following important points: the reduction to a minimum of the contents of the knapsack; the omission of nothing essential to daily comfort, or average accident; the adjustment of his load so as to cause the least possible inconvenience or fatigue, or injury to health; the readiest means of ascertaining what are really requisites, and of procuring them; and, commonly, their cost. Carefully studied and acted on, it will save inexperienced pedestrians from the mischievous mistakes of overloading themselves, and of attempting to do too much.

*The Great Eastern Railway Company's Tourist Guide to the Continent.* With Map and numerous Illustrations. London: 125, Fleet-street, and 44, Regent-street. Pp. 130.

THIS Guide, of which the present is the fifth annual issue, supplies for a few pence a large amount of very useful information. It gives outlines of easy tours in Holland, Belgium, and along the Moselle and the Rhine, with enough of description of places to add to the interest without trenching on the province of the guide-books. Short notices are also given of Nuremberg, Vienna, and Munich, and of parts of Switzerland. The illustrations are good; the directions as to routes, etc., clear and trustworthy; and the information generally well chosen, and sufficient to aid anyone in selecting an easy route for a holiday trip.

**THE DEVELOPMENT OF CANCER FROM NON-MALIGNANT DISEASE.**—Dr. Lewis, Assistant-Physician to the New York Skin and Cancer Hospital, from a general review of what has been written on the subject, concludes:—1. Many diseases of a non-malignant character are not only predisposing but exciting causes of cancer. 2. Such degeneration often occurs in patients who have no hereditary predisposition to cancer; and in those who are so predisposed the danger is imminent. 3. The recognition of the pre-cancerous stage of the disease is of the highest importance in its successful treatment. 4. While it is true that heredity is well attested in many cases, its importance has been greatly over-estimated by all the older authorities and many writers of the present day.—*New York Med. Jour.*, June 30.

## REPORTS OF SOCIETIES.

### THE OPHTHALMOLOGICAL SOCIETY.

THURSDAY, JULY 6.

WM. BOWMAN, F.R.S., President, in the Chair.

#### FINANCIAL STATEMENT.

THE TREASURER (Mr. J. F. Streatfeild) made his annual statement, which showed that the financial condition of the Society was satisfactory.

An alteration in the by-law relating to subscriptions was put from the chair and carried.

THE PRESIDENT said that the third session had passed happily for the Society. Three members from the colonies or dependencies, and five from the United Kingdom, in addition to fourteen from London, had joined the Society. The sense of the great loss experienced in the death of Mr. Critchett had already found expression; while in Mr. Lyell the Society had lost a member who, it was hoped, would have contributed valuable matter to its records. The President concluded by referring to the discussion on Eye-Symptoms in Spinal Disease, and expressed the opinion that it would act as a stimulus to further inquiry.

#### A CASE OF SYMPATHETIC OPHTHALMIA—OPERATION ON THE EXCITING ORGAN—RECOVERY.

MR. SIMEON SNELL (Sheffield) related the history of a man, aged thirty-six, who, on October 5, 1882, ran a packing-needle into his left eye. He came first under observation on October 20; there was then prolapse of the iris, and a wound in the lower and inner sclero-corneal junction, encroaching on the ciliary region. On November 3 he had plastic iritis, which had been preceded by "mistiness" for two or three days in the right eye; the pupil was hardly acted upon by atropine. On November 5 his condition was worse, and the next day it was still more aggravated. On November 6 the prolapse was incised, and as much iris as possible excised; very little was removed, and that only by piecemeal, as it was incorporated in the tissues. The incision was prolonged on either side in the sclerotic, just behind the corneal junction. On the next day there was improvement: the pupil soon dilated, and the iritis subsided; the prolapse in the left had disappeared. On November 19 there appeared a little iritis, and perchloride of mercury was ordered internally. Recovery soon took place. In a few weeks he resumed his work. April 13, 1883, in either eye, v.  $\frac{20}{60}$ ; and he was able to follow his employment as well as formerly.

#### HEMIACHROMATOPSIA.

MR. SWANZY (Dublin) brought forward the case of a gentleman, aged seventy-seven, who, in November last, had a slight attack of cerebral apoplexy, which rendered him unconscious for about twelve hours, and from which he completely recovered in the course of a few days, except for some defect in vision, and a confusion of ideas when he made any unusual mental effort. He had not, even for a short time, any hemiplegia, affection of speech, or other paralysis. Five months later, Mr. Swanzy was consulted, the patient's chief complaint being a difficulty in recognising his friends, even when near to him. In each eye, v.  $\frac{1}{2}$ . In the left eye, a slight peripheral opacity of the lens; but in all other respects the eyes were organically sound. The defect in vision could be accounted for by senile changes in the media and retina; but this comparatively slight defect was insufficient to explain his difficulty in recognising people, and Mr. Swanzy was inclined to regard it as a disturbance of a cerebral function. Examination with the perimeter displayed a slight defect in the right upper quadrant of each field. The patient complained that his colour-vision had not been so acute since the attack in November, but yet he was able to perform the Holmgren tests with accuracy. When the fields were examined with coloured wools, Mr. Swanzy found that the left side of the field in each eye was totally colour-blind, while with the right side colours could be distinguished, although in an area concentrically contracted. This and similar cases clearly showed that the nervous elements, in which the power of perception of colour resided, were situated in the brain, and not in the peripheral visual apparatus, and that the



colour-centre in the brain was distinct from that for the form-sense, and for ordinary light-perception.

The PRESIDENT considered that the case was of much interest. He inquired whether the line limiting the field was quite vertical and through the fixation-point.

Mr. BRUDENELL CARTER observed that there were cases on record which appeared to confirm the anatomical speculations of Mr. Swanzy. He had lately seen a case where, in the left eye, a colour-scotoma extended from the fixing-point ten degrees on both sides. There was a history of the use of tobacco, but no failure of colour-vision—only general lowering.

Mr. McHARDY mentioned the case of a man who became suddenly colour-blind. About ten days before he came under observation he one day noticed that the meat had a most "disgusting" slate-blue colour, and he also, from that time, made mistakes in the colour of lights on board ship. He was found to be quite red-blind; he was suffering from albuminuria, and four days later died of cerebral apoplexy, which was found at the necropsy to be very extensive.

Mr. NETTLESHIP asked whether the colour-sense was defective in the whole left half of the field. Usually in these cases acuteness of vision was normal, because the dividing line passed a little to one side of the fixation-point.

The PRESIDENT remarked that in Mr. Swanzy's case one-half of the field of vision for colour was lost, just as, in certain cerebral lesions, one-half of the field of vision was lost; it might, therefore, be concluded that the loss of half of the field of vision for colour was also due to cerebral lesion.

Mr. SWANZY, in reply, said that he had taken great care to test the centre of the field of vision; in this case the colour-scotoma, however, seemed to pass precisely through the centre.

#### FOREIGN BODY IN THE FUNDUS.

Mr. J. E. ADAMS related the case of a young blacksmith, who was struck in the left eye by a chip from an anvil, which penetrated through the tissues and vitreous, and lodged in the fundus above, and to the outer side of the macula. For a few hours after the injury the patient could not distinguish light from darkness, but vision had steadily improved, and was now normal. The body was covered by remains of lymph and pigment, and there were some striæ, denoting the remains of hyalitis. A similar case had been recorded by Mr. Snell.

Mr. SNELL said that in his case the foreign body entered a little beyond the sclero-corneal junction, and was plainly visible a few hours after the accident. When seen two years and a half later the result was good. More recently he had seen a similar case in which the particle passed through the cornea and lens and lay below the disc. At the end of two years the lens became opaque. Knapp had collected twelve cases, and had advised the use of the electromagnet, but Mr. Snell felt great hesitation on the point.

Mr. W. ADAMS FROST said that he had seen a case in the practice of Mr. Waren Tay where the lens escaped injury and the media were clear; a glistening body could be seen close to the macula. Vision was fairly good, and there was no inflammation.

#### OPHTHALMOSCOPE FOR ARTISTS.

Mr. J. E. ADAMS exhibited and described his ophthalmoscope for artists; and

Mr. McHARDY observed that as artists were liable to a kind of cramp, from the strain and constant change from the ophthalmoscope to the pencil, the instrument was calculated to be very useful.

#### ANOMALOUS DISTRIBUTION OF RETINAL ARTERIES.

Mr. J. B. STORY (Dublin) communicated notes of a case of anomalous distribution of the retinal arteries, where the superior nasal artery gave a branch which ran downwards in several curves, and ended in the descending division of the artery near the disc, without communicating directly with the central artery.

Mr. McHARDY said that the appearance in the drawing resembled a case which he had seen, but his was a case of aneurismal varix.

#### CONGENITAL DROOPING OF THE LEFT UPPER EYELID.

Mr. GUNN showed a girl, aged fifteen, in whom the left upper eyelid drooped, and the left pupil was rather smaller than the right. The drooping lid was raised every time that

(and on no other occasions) the left external pterygoid was put into action.

Dr. CHOLMELEY pointed out that the eyelid was materially lifted when the chin was turned quickly to the right. The case was subsequently referred to a committee, consisting of Dr. Gowers, Dr. Mackenzie, Dr. Abercrombie, Mr. Lang, and Mr. Gunn.

#### DISSEMINATED CHOROIDO-RETINITIS.

Mr. SYMONS showed, for Mr. Lawson, a drawing from a case of choroido-retinitis in a man aged twenty-three years, who contracted syphilis thirty months ago.

#### MORPHEA.

Mr. POWER exhibited a young woman twenty-three years of age, with a patch of morphea on the left upper eyelid.

Dr. MACKENZIE thought that the patch would eventually disappear if left alone.

#### CYSTICERCUS.

Mr. HULKE exhibited a drawing from a case of cysticercus in the vitreous humour; the child had subsequently passed under the care of Mr. Vernon, in St. Bartholomew's, and the case had been published by him elsewhere.

#### MULTIPLE RETINAL ANEURISM.

Mr. A. H. BENSON (Dublin) showed a drawing of a case in which there were numerous aneurisms on the arteries and veins of the retina. There was no increase of tension.

#### FACIAL, CONJUNCTIVAL, AND RETINAL NÆVUS.

Dr. HORROCKS exhibited a case of facial, conjunctival, and retinal nævus. The patient was a girl, nine years of age, who had been subject to fits since her birth, and was hemiplegic on the left side. The right side of the face, including the skin of the eyelids and forehead, was covered with a nævus, giving a port-wine-stain appearance; the conjunctiva was also affected. On ophthalmoscopic examination, the retinal veins of the right eye were seen to be very tortuous. Owing to her defective intellect, nothing satisfactory could be elicited as to vision; but, as far as could be made out, she saw equally and well with both eyes. Dr. Horrocks pointed out that the tissues in which the vascular dilatation occurred were epiblastic structures, suggesting the possibility that the vessels of the pia mater on the right side were similarly affected, thereby having something to do with the left-sided fits.

Dr. S. MACKENZIE observed that Dr. Allen Sturge had exhibited, at the Clinical Society, a case in which there was a nævus of one side of the face, and paralytic symptoms on the opposite side of the body, and had argued that, possibly, a nœvoid condition existed within the cranium at some part. Dr. Horrocks's case lent some support to that view, though it was proper to remember that the condition of the cerebral vessels had been met with on both sides, without any symptoms.

Mr. NETTLESHIP said that, in Dr. Sturge's case, there was nævus of the sclerotic also, and the affected eye was larger than the other.

Dr. HORROCKS suggested that, in marked tortuosity of the retinal vessels, the condition might be due to a foetal disturbance similar to that which set up cutaneous nævus.

**ENLARGEMENT OF THE PARIS HOSPITALS.**—The Paris Municipal Council has recently voted the sum of three million francs for the enlargement of the hospital accommodation. Of this sum two millions are to be employed in improvements and new construction in the existing hospitals, and the third million is to be especially used for part of the expenses in the construction of some new establishments, namely, a hospital-hospice out of Paris, a small-pox hospital, and a hospital for incurable children. The hospital-hospice will allow of the discharge from the hospitals in the interior of Paris of a large number of patients suffering from chronic diseases, who at present encumber them. This hospital-hospice is the more urgently needed as there are now 2200 aged persons who are in want of hospital accommodation, and whose numbers are always increasing by immigration; for it is calculated that of every hundred strangers who arrive in Paris eighty are in a state of poverty. The construction of this hospital will eventually cost 6,500,000 frs., that of the Enfants Incurables 3,250,000 frs., and that of the small-pox hospital 1,400,000 frs.—*Revue de Thérapeutique*, July 15.



## OBITUARY.

THOMAS CODY, L.R.C.P. EDIN., L.R.C.S.I.,  
SURGEON-MAJOR BOMBAY ARMY.

WE regret to record that Mr. Cody, of Her Majesty's Bombay Medical Service, died in Bombay on June 21, in the fortieth year of his age. Mr. Cody was driving on the morning of the 20th to visit the Goculdas Tajpal Hospital (a large native general hospital), of which he was acting surgeon, when his horse took fright at a municipal steam-roller, and the carriage coming in contact with a lamp-post, Mr. Cody was thrown violently to the ground, and sustained a fracture of the base of the skull. He received without delay every possible attention from his professional brethren; but he never recovered consciousness, and died in the afternoon of the following day. Mr. Cody, who was a native of Tipperary, became a Licentiate of the Royal College of Surgeons in Ireland in 1865; in 1866 he took the licence of the Royal College of Physicians of Edinburgh, and in the same year entered Her Majesty's Indian Medical Service. He held, under the Government of Bombay, various military and civil appointments, the more important of which were—Medical Officer of the 19th Regiment of Native Infantry; Durbar Physician to His Highness the Gaekwar of Baroda; Secretary and Statistical Officer to the Surgeon-General of the Indian Medical Service (since designated Surgeon-General to the Government of Bombay), of which office he was the permanent incumbent; and Officiating Surgeon to the Goculdas Hospital. He was for some time one of the two Hon. Joint-Secretaries to the Medical and Physical Society of Bombay. In 1878 he published some interesting cases of "Cæsarian Section, with Recovery," in the *Lancet* (vol. ii., page 875); and last year he contributed to the same periodical three papers—"Removal of Elephantoid Tumour of the Scrotum," "Elephantiasis of the Scrotum," and "Elephantiasis of the Scrotum; Elephantiasis of Labia Vulvæ: Recovery." His genial disposition endeared him to all classes, which was amply manifested by the large attendance at his funeral, which was accompanied with full military honours. The loss of this talented practitioner is deeply felt alike by our medical brethren and by the public of Bombay. Her Majesty's Indian Medical Service has lost, by his death, one who, had his career not been thus sadly cut short, would have done honour to the Service, and through it to our profession, in India.

## MEDICAL NEWS.

ROYAL UNIVERSITY OF IRELAND.—At a meeting of the Senate held on Thursday, July 12, the following degrees were conferred by the Right Hon. the Lord O'Hagan, K.P., Vice-Chancellor of the University:—

*Degree of M.D.*—John Andrews, Galway; John Bolster, Cork; George Clarke, Belfast; Horace Elliott, Westminster Hospital; Thomas Farrelly, Galway; S. Forster Freyer, Steevens' Hospital; Thomas G. Garry, Galway; John B. Graham, Belfast; James Herron, Belfast; James C. Hood, Belfast; A. M. Johnson, Belfast and Galway, and Ledwich School of Medicine; Patrick Keelan, Belfast, Catholic University School; Isaac R. Lane, Cork, Ledwich School, and Royal College of Surgeons, Ireland; Bartholomew Mangan, Cork, and Carmichael School of Medicine; C. M. Mitchell, Galway; W. J. Mitchell, Galway; John A. Nealon, Cork, and Carmichael School of Medicine; Peter O'Connell, Catholic University School of Medicine; W. C. D. Prendergast, Cork; Richard J. Purdon, Belfast; Stephen Scanlan, Cork; Michael J. Sexton, Cork; R. G. Thompson, Cork; Francis G. Tooker, Cork; James Torrens, Galway, Edinburgh University, and Charing-cross Hospital; George W. Weir, Royal College of Surgeons, Ireland.

*Degree of M.B.*—Charles W. R. Wynne, Carmichael School of Medicine.

*Degree of M.Ch.*—F. E. Adams, M.D., Cork; C. W. Allport, M.D., Cork; John Andrews, Galway; John Bolster, Cork; George Clarke, Belfast; David S. Dunn, M.D., Belfast; Horace Elliott, Westminster Hospital; Thomas Farrelly, Galway; S. F. Freyer, Steevens' Hospital; Thomas G. Garry, Galway; William Gibson, M.D., Belfast; John B. Graham, Belfast; Michael Kelly, M.D., Cork; Isaac R. Lane, Cork; Beattie McFarlane, M.D., Belfast; Bartholomew Mangan, Cork, and Carmichael School of Medicine; W. J. Mitchell, Galway; Peter O'Connell, Catholic University School of Medicine; Patrick O'Gorman, M.D., Galway, and Carmichael School of Medicine; W. C. D. Prendergast, Cork; Richard J. Purdon, Belfast; Stephen Scanlan, Cork; Michael J. Sexton, Cork; Simson Stuart, M.D., University College, Liverpool; S. A. L. Swan, M.D., Queen's College, Belfast; Charles W. R. Wynne, Carmichael School of Medicine.

*For the Diploma in Obstetrics.*—John Bolster, Cork; Thomas G. Garry, Galway; William Good, M.D., Cork; John B. Graham, Belfast; Michael Kelly, M.D., Cork; Isaac R. Lane, Cork; Bartholomew Mangan, Cork, and Carmichael School of Medicine; W. J. Mitchell, Galway; W. C. D. Prendergast, Cork; Stephen Scanlan, Cork.

Thirty-seven candidates were declared to have passed the first, and twenty-eight the second examination in Medicine. The Senate ordered that the candidates who had failed to satisfy the Examiners at the several examinations should be admitted to the examinations to be held in September.

The Senate ordered that, after the year 1883, all candidates for the diploma in Obstetrics shall be required to undergo a special written examination in midwifery, gynaecology, and diseases of children.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual quarterly First Professional Examination, held on Monday, July 9, and following days, the undermentioned candidates were successful:—

Dorrian, Bernard James.  
Graham, Cathleen Honoria.

Heffernan, James.  
Van Overbeke, Léonie.

At the usual quarterly examination for the Certificate in Sanitary Science, held on Thursday and Friday, July 12 and 13, the certificate was granted to the following Licentiates in Medicine of the College:—

Bosanquet, Adela.

Lougheed, Elizabeth.

At the monthly examinations for the Licences of the College, held on July 9 and four following days, the undermentioned candidates were successful:—

For the Licence to practise Medicine—

Andrew, Lætitia Harvey, Edinburgh.  
Blake, Anthony Laurence, Clonbur, co. Galway.  
Byrne, Hugh John, Dublin.  
Clayton, William Mayne, Sandycove, co. Dublin.  
Cleary, Michael Richard, Herbertstown, co. Limerick.  
Cradock, Lucy Elizabeth, Lynn, Norfolk.  
Drought, Percy James, Blackrock, co. Dublin.  
Ensor, Edwin Thomas, M.D., New York.  
Fitzgerald, Arthur Ormsby, Hospital, co. Limerick.  
FitzPatrick, James Vincent, New Swindon, Wiltshire.  
Forde, Maurice, Fermoy, co. Cork.  
Hamilton, James, Omagh, co. Tyrone.  
Henston, Frederick Samuel, Ballykisteen, co. Tipperary.  
Keenan, James, Dublin.  
Kenealy, Arabella Madonna, Watford, Herts.  
Kenny, William, Limerick.  
Lalor, Joseph, Dublin.  
Lane, James, Magilligan, Londonderry.  
Long, Mark Henry, M.D., New York.  
McCraith, John E., Smyrna, Asia Minor.  
McGee, William, Dublin.  
McGinity, Bernard Alphonsus, Dublin.  
McNaught, Frederick Josiah, Dublin.  
Maher, Charles Henry, Sydney, New South Wales, Australia.  
Martin, John, Rathmines, Dublin.  
Moorhead, Henry, Tullamore, King's County.  
Neill, John Tallaght, co. Dublin.  
Nolan, John Robert, Kilbane House.  
O'Reilly, Peter Joseph, Clones, co. Monaghan.  
Roughan, George Francis, Galway.  
Russell, Bartholomew Taylor, Ballinderry Park, co. Tipperary.  
Sheperd, Albert Wilberforce, Dublin.  
Torney, George Parsons, Dublin.

For the Licence to practise Midwifery—

Andrew, Lætitia Harvey.	Lalor, Joseph.
Byrne, Hugh John.	Long, Mark Henry, M.D., New York.
Cleary, Michael Richard.	McGinity, Bernard A.
Cradock, Lucy Elizabeth.	McNaught, Frederick Josiah.
Ensor, Edwin Thomas, M.D., New York.	Neill, John.
Fitzgerald, Arthur Ormsby.	Roughan, George Francis.
Henston, Frederick Samuel.	Sheperd, Albert Wilberforce.
Keenan, James.	Taylor, Rogers Wetherell Gore, M.B.
Kenealy, Arabella Madonna.	Univ. Dub., Surgeon P. and O. Company's Service.
Kenny, William.	

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, pursuant to the provisions of the Supplemental Charter of December 12, 1878, were duly enrolled Members of the College:—

Gore, Albert Augustus, L.M. 1830, Surgeon-Major A.M.D.  
Beamish, Thomas, L.M. 1863, Passage West, Cork.  
Stephenson, Edward Aloysius, L.M. 1836, Tramore.  
Bransby, Roberts, L.M. 1867, Eastbourne.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 19th inst., viz.:—

Callender, Gerald, Rugby, student of St. Mary's Hospital.  
Cardozo, S. N., L.R.C.P., Madras, of University College Hospital.  
Childe, C. P., Southborough, Tunbridge Wells, of King's College Hospital.  
Ellis, C. C., Oswestry, of St. George's Hospital.  
Griggs, W. A., St. John's, S.E., of St. Bartholomew's Hospital.  
Hillaby, Arthur, Pontefract, of St. Bartholomew's Hospital.  
Jones, M. P., L.S.A., Upper Lyde, Hereford, of Guy's Hospital.



Linnell, Alfred, Towcester, student of Guy's Hospital.  
 Llewellyn, D. W. H., L.R.C.P. Lond., Osborne-terrace, S.E., of St. Thomas's Hospital.  
 Maughan, James, L.R.C.P. Lond., Liverpool, of the Liverpool School.  
 Phillips, F. B. W., Brighton, of Guy's Hospital.  
 Samson, C. L., Anerley, of King's College Hospital.  
 Tresidder, H. J., L.R.C.P. Lond., West Dulwich, of Guy's Hospital.  
 Wigg, H. H., Adelaide, South Australia, of University College Hospital.

Six candidates were referred for six months, and four for three months. The following gentlemen were admitted Members on the 20th inst., viz. :—

Beaumont, Edgar, Upper Norwood, student of St. George's Hospital.  
 Brown, A. J. F., L.S.A., Rochester, of Guy's Hospital.  
 Clark, A. W., Dorking, of Guy's Hospital.  
 Cuolahan, J. H., Bermondsey, of Guy's Hospital.  
 Floyer, W. W., Victoria-park, E., of Guy's Hospital.  
 Green, C. D., L.R.C.P. Lond., Shardeloes-road, S.E., of St. Thomas's Hospital.  
 Hunter, G. D., Cromwell-crescent, S.W., of St. George's Hospital.  
 Kendall, George, Clapham-road, of Guy's Hospital.  
 Lilburne, J. T., L.S.A., Duncreeve, N.B.  
 Powell, H. E., Hereford, of St. Bartholomew's Hospital.  
 Powell, J. J., Launceston, of University College Hospital.  
 Robinson, C. S., L.R.C.P. Lond., Guernsey, of St. George's Hospital.  
 Robinson, H. B., Lower Norwood, of St. Thomas's Hospital.  
 Sharpley, Edward, Louth, Lincolnshire, of Guy's Hospital.  
 Williams, R. R., Llanberis, North Wales, of King's College Hospital.  
 Wilson, Edward, Cheltenham, of University College Hospital.  
 Woodson, A. A., Sheffield, of University College Hospital.  
 Wright, G. R. M., L.R.C.P. Lond., Walworth-road, S.E., of St. Bartholomew's Hospital.

Five candidates passed in Surgery, and when qualified in Medicine will be admitted Members of the College. Six candidates were referred for six months, one for nine months, and one for three months. The following gentlemen were admitted Members on the 23rd inst., viz. :—

Allingham, H. W., Grosvenor-street, student of St. George's Hospital.  
 Arnold, E. C., Denbigh-street, S.W., of St. George's Hospital.  
 Bredin, H. A., Liverpool, of the Liverpool School of Medicine.  
 Caldwell, Robert, Tavistock, of the Westminster Hospital.  
 Cotes, C. E. H., Hammersmith, of St. George's Hospital.  
 Des Vœux, H. A., Kensington, of St. George's Hospital.  
 Hicwicz, H. F., L.S.A., Haverstock-hill, of the London Hospital.  
 Moline, F. P., Bristol, of University College Hospital.  
 Moore, W. H., Silloth, Cumberland, of Guy's Hospital.  
 Paget, Stephen, Harewood-place, of St. Bartholomew's Hospital.  
 Potter, Harry, Denbigh-place, S.W., of St. George's Hospital.  
 Shillingford, F. N., Peckham, of Guy's Hospital.  
 Southern, J. A., Clapham-road, of St. Thomas's Hospital.  
 Sutton, H. M., L.S.A., Reading, of St. Thomas's Hospital.  
 Topham, A. S., Doddington-grove, of Guy's Hospital.  
 Wilkinson, R. H., East Dulwich, of St. Bartholomew's Hospital.

Eight gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College. One candidate was referred for three months, and three for six months. The following gentlemen passed on the 24th inst., viz. :—

Atkins, Ernest, L.S.A., Plumstead, student of the Charing-cross Hospital.  
 Berkley, E. J. G., L.S.A., Hackney, of the Charing-cross Hospital.  
 Brown, W. H., L.S.A., Bexley, of University College Hospital.  
 Evans, W. A., L.S.A., Manchester, of the Manchester School.  
 Gosling, T. P., L.S.A., Diss, of University College Hospital.  
 Hubbard, A. J., L.S.A., Ladbroke-terrace, of St. Thomas's Hospital.  
 Jennings, Roberts, L.R.C.P. Lond., Haslingden, of the Manchester School.  
 Schofield, A. T., L.R.C.P. Lond., Cambridge-gardens, of the London Hospital.  
 Thorburn, William, L.S.A., Rusholme, of the Manchester School.  
 Walker, Joseph, L.S.A., Kirkley, of the Liverpool School.  
 Whittingdale, J. F. L., B.A. Cantab., Ingleton, of the Edinburgh School.

Four gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College. Three candidates were referred for three months, five for six months, and one for twelve months. The following gentlemen passed on the 25th inst., viz. :—

Aird, T. W., L.A.H. Ire., East India-road, student of the Dublin and London Schools.  
 Bassett-Smith, P. W., L.S.A., St. John's Wood, of the Middlesex Hospital.  
 Bennett, F. W., L.S.A., Leicester, of the Manchester School.  
 Broadbent, Frank, Collingham, of St. Bartholomew's Hospital.  
 Cunningham, C. W., L.S.A., Devizes, of King's College Hospital.  
 Evans, W. H., L.S.A., Montagu-place, of University College Hospital.  
 Griswold, Gaspar, M.D. New York, New York, of the Univ. of New York.  
 Reynolds, E. S., L.S.A., Manchester, of the Manchester School.  
 Strathy, P. J., M.B. Toronto, Toronto, of the Toronto School.

Seven candidates were referred for six months, and one for three months.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 19 :—

Davidson, John Matthew, Jamaica-road, S.E.  
 Greet, Charles Harvey, Vernon-square, King's Cross-road, W.C.  
 Kirby, Alfred, Batchworth Heath, Rickmansworth.  
 Lilburne, James Thomas, Brunswick-place, N.W.  
 Nelham, Albert Edgar, Warwick-street, Pimlico.  
 Starr, Wm. Henderson, Roseford-terrace, West Kensington-park, W

The following gentleman also on the same day passed the Primary Professional Examination :—

Cropley, Henry, London Hospital.

#### BIRTH.

MOORE.—On July 22, at 40, Fitzwilliam-square West, Dublin, the wife of John William Moore, M.D., F.R.C.S., of a son.

#### DEATHS.

AYRTON, MATILDA CHAPLIN, M.D. (Paris), etc., at 63, Sloane-street, S.W., on July 19, aged 37.

HAMMOND, HENRY SAMUEL, F.R.C.S., late of Edmonton, at Lewisham, Kent, on July 24, in his 92nd year.

PHILLIPS, RICHARD, F.R.C.S., at 27, Leinster-square, Bayswater, on July 23, aged 67.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR DISPENSARY, 23, QUEEN'S-ROAD, BRIGHTON.—Honorary Assistant-Surgeon. Applications, together with copies of testimonials, to be sent to Christopher Challis, Hon. Sec., 60, King's-road, Brighton (of whom all further particulars may be had), on or before July 29.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary £120 per annum, with residence at the Hospital, attendance, coal, and gas. Candidates must be duly registered in medicine and surgery under the Medical Act, and unmarried. Applications to be sent to John Binks, Honorary Secretary, on or before August 6.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Lecturer on Dental Anatomy and Physiology. (For particulars see Advertisement.)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Junior Resident Medical Officer. (For particulars see Advertisement.)

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, LIVERPOOL.—Resident Medical Officer. Salary £90 per annum, with board, etc. Candidates must be duly qualified. Applications, with testimonials, to be sent to Robert Calder, Secretary, 4, Commercial-court, 17, Water-street, Liverpool (from whom any further information can be obtained), on or before August 15.

QUEEN'S COLLEGE, CORK.—Professorship of Midwifery. (For particulars see Advertisement.)

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

Dewsbury Union.—Mr. William Arthur has resigned the Mirfield District : area 3545; population 15,870; salary £30 per annum.

St. Mary Abbots (Kensington) Parish.—Mr. C. M. Frost has resigned the Workhouse : salary £30.

#### APPOINTMENTS.

Alderbury Union.—James Hartley, L.R.C.P., L.R.C.S. Edin., to the Downtown District.

Barton-on-Trent Union.—William Creagh, L.R.C.S. Ire., D.M. Dub., L.S.A. Lond., to the Rosliston District.

Chester Union.—Henry A. Phillips, M.B., M.S. Aber., M.R.C.S.E., L.S.A., to the Fourth District.

Church Stretton Union.—Thomas J. Hughes, M.R.C.S.E., L.S.A., to the Workhouse and the First District.

Dorchester Union.—Edward J. Day, M.R.C.S.E., L.S.A. Lond., to the Fordington District. F. B. Fisher, M.R.C.S.E., L.R.C.P. Lond., to the Broadmayne District.

Llanelli Union.—A. Devonald, L.R.C.P., L.R.C.S. Edin., to the Llanon District.

Tamworth Union.—Mr. W. Creagh, L.R.C.S. Ire., L.S.A. Lond., D.M. Dub., to the Clifton District.

North Surrey District School.—H. J. Prangle, M.R.C.S.E., L.R.C.P., L.S.A., to be Medical Officer.

#### ANALYSTS.

Peterborough City.—Mr. J. A. Wanklyu for two years.

Sussex County.—Mr. E. H. Moore for the Eastern and Western Divisions for one year.

**THE LATE TREASURER OF GUY'S HOSPITAL.**—The will of Mr. Thomas Turner, J.P., LL.D., for many years the Treasurer of Guy's Hospital, has just been proved as amounting to over £99,000, the whole of which he has bequeathed to his widow.

**RECOGNITION OF TESTAMENTARY CAPACITY DURING LIFE.**—A law was recently passed in the Michigan Legislature, allowing a person to make his will, and then during his lifetime petition the Probate Court for citations to all his heirs and such other persons as he deemed necessary to attend an examination into his sanity and testamentary capacity. If it shall appear that the person was fully competent to make a will, a decree to that effect shall be made, and the question of incapacity cannot be raised again, except upon appeal from the decree. If the testator subsequently becomes insane, and dies in that condition, his will, nevertheless, cannot be questioned on this ground. The contents of the will are not to be made known until after the death of the testator.—*New York Med. Jour.*, June 30.



VITAL STATISTICS OF LONDON.

Week ending Saturday, July 21, 1883.

BIRTHS.

Births of Boys, 1316; Girls, 1243; Total, 2559.  
Corrected weekly average in the 10 years 1873-82, 2601.9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	906	875	1781
Weekly average of the ten years 1873-82, } corrected to increased population ...	884.9	809.2	1694.1
Deaths of people aged 80 and upwards ...	...	...	38

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	3	1	3	3	...	1	...	74
North ...	905947	...	10	3	5	5	1	2	...	71
Central ...	282238	...	8	1	4	2	...	...	...	30
East ...	692738	...	23	18	3	9	...	2	...	88
South ...	1265927	...	33	9	6	9	...	5	...	88
Total ...	3816483	...	77	32	21	28	1	10	...	351

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.691 in.
Mean temperature ...	...	...	...	...	...	56.0°
Highest point of thermometer ...	...	...	...	...	...	69.4°
Lowest point of thermometer ...	...	...	...	...	...	43.6°
Mean dew-point temperature ...	...	...	...	...	...	49.8°
General direction of wind ...	...	...	...	...	...	W.S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.44 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
Week ending Saturday, July 21, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending July 21.	Deaths Registered during the week ending July 21.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)		Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.		Weekly Mean of Daily Mean Values	Weekly Mean of Daily Mean Values.
London ...	3955314	2559	1781	23.5	69.4	43.6	56.0	13.33	0.44 1.12
Brighton ...	111262	68	27	12.7	70.3	42.6	56.6	13.67	0.23 0.58
Portsmouth ...	131478	84	45	17.9	...	...	...	...	...
Norwich ...	89612	45	25	14.6	...	...	...	...	...
Plymouth ...	74977	40	22	15.3	65.8	47.3	55.5	13.06	0.88 2.24
Bristol ...	212779	138	69	16.9	63.4	44.0	52.6	11.45	1.32 3.35
Wolverhampton ...	77557	51	20	13.5	61.8	40.5	50.5	10.28	1.50 3.81
Birmingham ...	414346	254	156	19.6	...	...	...	...	...
Leicester ...	129483	85	49	19.7	66.0	43.0	53.7	12.06	1.51 3.84
Nottingham ...	199349	143	80	20.9	70.0	39.8	54.4	12.44	1.28 3.25
Derby ...	85574	55	27	16.5	...	...	...	...	...
Birkenhead ...	88700	63	29	17.1	...	...	...	...	...
Liverpool ...	566753	402	246	22.6	61.5	48.8	53.1	11.73	1.33 3.38
Bolton ...	107862	57	32	15.5	62.5	44.8	50.8	10.45	2.19 5.46
Manchester ...	339252	223	162	24.9	...	...	...	...	...
Salford ...	190465	113	78	21.4	...	...	...	...	...
Oldham ...	119071	74	32	14.0	...	...	...	...	...
Blackburn ...	108460	86	38	18.3	...	...	...	...	...
Preston ...	98564	70	46	24.4	64.0	49.0	54.5	12.50	0.91 2.31
Huddersfield ...	84701	59	28	17.3	...	...	...	...	...
Halifax ...	75591	29	19	13.1	...	...	...	...	...
Bradford ...	204807	104	52	13.2	65.6	45.8	53.0	11.67	2.33 5.92
Leeds ...	321611	221	119	19.3	67.0	44.0	53.8	12.12	1.19 3.02
Sheffield ...	295497	215	131	23.1	64.0	42.5	52.9	11.61	1.35 3.43
Hull ...	176296	114	53	15.7	68.0	40.0	54.2	12.33	0.96 2.44
Sunderland ...	121117	92	47	20.2	71.0	46.0	55.1	12.84	2.14 5.44
Newcastle ...	149464	111	85	29.7	...	...	...	...	...
Cardiff ...	90033	71	25	14.5	...	...	...	...	...
For 28 towns ...	5620975	5626	3523	21.3	71.0	39.8	53.8	12.12	1.30 3.30
Edinburgh ...	235946	130	86	19.0	65.0	42.4	53.4	11.89	1.81 4.60
Glasgow ...	515589	440	250	25.3	63.0	39.5	53.9	12.17	0.90 2.29
Dublin ...	349.85	181	152	22.7	63.3	43.1	54.6	12.56	0.41 1.04

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.69 in.; the highest reading was 30.00 in. on Monday afternoon, and the lowest 29.41 in. on Saturday afternoon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*The Contagious Diseases Act, Canterbury.*—Since the removal of the compulsory clauses of these Acts, the Town Council and the Poor-law Guardians have taken steps in favour of the restoration of the clauses, and propose to obtain an Act for the city with provisions similar to the Glasgow Police Act.

*The Stationary Condition of the Population of France.*—For some time past this question has been a source of uneasiness to thoughtful Frenchmen. Several schemes for stimulating population have been proposed in the Chamber, but even their authors appeared to have little confidence in their efficacy. It is pretty certain that unless the French increase and multiply at a much faster rate than they now do, France a century hence will exhibit a very sorry figure by the side of other nations. An employé of the Ministry of Commerce has recently made some interesting calculations on the subject, which have been published. But for the influx of strangers, population in France would be considerably more backward than it is. In 1851 the number of foreigners in the country was only 380,000; in 1876 it had risen to 800,000; and at present it is estimated at a little over a million. In Paris alone no fewer than 125,000 foreigners are constant residents.

*Selling Poison without a Proper Label.*—At an inquest held at Berwick, touching the death of a married woman who died from an overdose of morphia taken to induce sleep, the coroner severely censured the chemist's assistant for selling the poison to deceased's little girl without a proper label, and expressed the opinion that the police should take the case up.

*The Opium Traffic.*—At a public conference, held at Liverpool under the auspices of the Anti-Opium Society, Mr. Tong-King-Sing, managing director of the China Merchants' Steam Navigation Company, of Shanghai, and director of other Chinese companies, gave an address, in which he dwelt upon the noxious effects of opium-smoking upon the health and physique of the Chinese, and commented on the action of the English Government in forcing the trade on China. He emphatically asserted that the Chinese Government was sincere in its desire to repress the use of opium throughout its dominions. A resolution was carried, thanking Mr. Sing for his address, and expressing sympathy with him in his views, and stating that the retention of the opium trade solely for the benefit of our Indian revenue was contrary to the interests of China, to international morality, and to the honour of England.

*Fortunate'y, an Exceptional Decision.*—The Lambeth Vestry have declined to incur the yearly expenditure of £100 for the maintenance of the churchyard of St. John's, Waterloo-road, as a recreation ground.

*The Greenwich Workhouse.*—The Guardians have approved the plans for enlarging the workhouse at a cost of £14,240.

*The Recent Vaccination Question, St. Pancras.*—The Workhouse Visiting Committee reported to the last meeting of the Board of Guardians touching the case of the late Herbert Walsh, that they did not see in the proceedings of the coroner's inquest any evidence connecting the re-vaccination of the mother, Rosina Walsh, with the subsequent drying up of her milk. The Committee, however, regarded this question, as well as that raised by Dr. Dunlop—viz., whether the possibility of small-pox ravaging a lying-in ward would, under the circumstances existing at the time, justify vaccination at so early a period as one day after confinement,—as questions only solvable by medical men, and would, therefore, suggest that this matter be referred to the Local Government Board. There was another discussion on this subject, several members expressing disapproval of the manner in which Dr. Dunlop had acted. It was urged that, Dr. Buchanan being at the Local Government Board, the recommendation of the Committee was a wise one. The report was approved.

*Philanthropy.*—The object of the Girls' Friendly Society is to provide cheap lodgings with reliable persons for young women making their way to large towns and cities, where they have probably no relatives or friends, for the purpose of seeking employment in shops or other places of business.

*The Hampstead Hospital Litigation.*—A circular letter has been sent by the Metropolitan Asylums District Board to all the vestries and boards of guardians in the metropolis, explaining the Managers' position in reference to the Hampstead Hospital case; and replies from nearly all the boards have been received, the majority having decided to take no action in the matter. The Board have received a letter from the plaintiffs' solicitor, submitting a proposal for the settlement of the question on the basis of the Hospital remaining in its present condition. The whole subject is before the General Purposes Committee.

*L. L., Paddington.*—The Act of Parliament under which disused burial-grounds are laid out as gardens and open spaces for the public use expressly provides that the playing of games or sports shall not be allowed.



*The Royal College of Surgeons, Dublin.*—Honorary Fellowships of the College have been conferred on Dr. Crawford, Director of the Army Medical Department, and Sir James Hanbury, Chief Medical Officer in the Egyptian campaign.

*Infringing the "Truck Acts."*—A shopkeeper and master fustian-cutter, at Sale, has been ordered to pay fines and costs amounting to £18, for paying his *employés* otherwise than in current coin, in contravention of the law. He paid wages partly in beer and groceries.

*Proposed Additional Vaccination Station, Paddington.*—The Board of Guardians, on the recommendation of the Dispensary and Vaccination Committee, propose that a second vaccination station be supplied for the Eastern District, the only station at present being at Paddington Green. The Eastern District, under the care of Dr. Hibberd, extended from the Marble Arch to Kilburn, and included St. Peter's-park; and it is recommended that the second station be placed in the latter district. The matter will be considered at the next meeting of the Board.

*Cutting off the Water-Supply: Responsibility of Owners of Property.*—In reply to a letter from the Newington Vestry with reference to the water companies cutting off the water-supply on non-payment of rates, the Local Government Board points out the powers of the Vestry from a sanitary point of view to compel owners of property to have the water laid on where necessary.

*Sanitary Defects, Clerkenwell.*—The Vestry of this parish have adopted the recommendation of the Sanitary Committee, that powers should be delegated to them to take legal proceedings under the Sanitary Acts, where necessary, for the enforcement of notices to abate nuisances.

*Medical Certificates as to Boys remanded by Magistrates to the Workhouse.*—The Clerk of the City of London Union, in pursuance of his instructions, has considered the application of Dr. Aveling, Medical Officer of the Homerton Workhouse, to be paid for certifying as to boys remanded by magistrates to the workhouse for the purpose of sending them to industrial schools, and is of opinion that the Guardians might pay, with the consent of the Local Government Board, a gratuity to Dr. Aveling for so certifying, and that 2s. 6d. for each case would be sufficient remuneration, and would in this instance amount to £7. The Clerk remarks that Dr. Aveling had for several years given his certificates, but had only just awoke to the fact that he ought to be paid.

*Mortuary Statistics at Ottawa.*—A lady has been appointed chief clerk of these statistics. It is stated that she is the first woman who has been promoted to so important a post in the Dominion.

*Fish-Supply in the East End.*—At length there appears to be some prospect of the successful utilisation of Columbia Market, designed by its benevolent founder, Lady Burdett-Coutts, with the object of cheapening the food-supply of the poor of the Bethnal Green district. It has just been opened again as a fish market, under circumstances which we hope will obviate defeat, as was previously the case by the persistent opposition of the Billingsgate monopolists. The apparent success of the Farringdon Market and the Elephant and Castle Market augurs well for the future of Columbia Market.

*The Effect of Tobacco Smoking on Children.*—Dr. G. Decaisne has submitted to the Society of Public Medicine the results of some interesting observations on the effects due to the use of tobacco among boys. Thirty-eight youths were placed in his charge, whose ages varied from nine to fifteen, and who were in the habit of smoking, though the abuse of tobacco varied in degree. The effects, of course, also varied, but were very emphatic in twenty-seven cases. In twenty-two patients there was distinct disturbance of the circulation, bruit in the carotids, palpitation, deficiency of digestion, sluggishness of intellect, and a craving, more or less pronounced, for alcoholic stimulants. In thirteen instances there was an intermittent pulse. Analysis of the blood showed in eight cases a notable falling off in the usual number of red corpuscles. Twelve boys suffered frequently from bleeding of the nose; ten complained of agitated sleep and constant nightmare. Four boys had ulcerated mouths; and one of the children became the victim of pulmonary phthisis—a fact which Dr. Decaisne attributed to the great deterioration of the blood produced by prolonged and excessive use of tobacco. As these children were all more or less lymphatic, it was not possible to establish a comparison according to temperament; but the younger the child the more marked were the symptoms, and the better-fed children were those that suffered least. Eight of the children in question were aged from nine to twelve years. Eleven had smoked for six months, eight for one year, and sixteen for more than two years. Out of eleven boys who were induced to cease smoking, six were completely restored to normal health after six months, while the others continued to suffer slightly for a year. Treatment with iron and quinine gave no satisfactory result, and it seems tolerably evident that the most effective, if not the only cure, is to at once forswear the habit, which, to children in any case, is undoubtedly pernicious.

*Health of Broadstairs.*—The death-rate of this town still remains at 15.2 per 1000 per annum, the zymotic death-rate being below 1 per 1000.

Only two deaths are referred to this class of disease by Dr. Robinson, the Medical Officer of Health, in his last half-yearly report, ending the 30th ult. This is the fourth year in succession during which the mortality has been between 15 and 16 per 1000 per annum.

*Official Neglect of Sanitary Precautions, and its Consequences.*—The medical officer reported last week to the Wednesbury Local Board that three cases of small-pox had occurred in the parish in the previous fortnight, all of them having been imported into the district from works at West Bromwich. Complaints were made by several members of the Board of the danger of a renewed outbreak of the disease to which the town was exposed through the want of proper precautions on the part of the authorities of neighbouring places.

*Cabby's Pipe.*—The Prefecture of Police has put out the pipe of the Paris cabdrivers by prohibiting them to smoke when they are driving.

COMMUNICATIONS have been received from—  
THE SECRETARY OF THE PARKES MUSEUM, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE SECRETARY OF THE INTERNATIONAL MEDICAL CONGRESS, Copenhagen: Mr. G. ELLIS, London; Dr. KELLY, Rotherhithe; Dr. JOHN C. LUOAS, Ahmedabad; THE SECRETARY OF THE SANITARY IMPROVEMENT COMPANY, London; Dr. DOLAN, Halifax; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. T. M. STONE, London; THE SECRETARY OF THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, London; Mr. HENRY MORRIS, London; Dr. MERCIER, Dartford; Dr. CLIFFORD BEALE, London; Dr. NORMAN CHEEVERS, London; Mr. J. CHATTO, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. EDWARD PLATYER, Toronto; Mr. J. R. BAREFOOT, London; Dr. LESLIE PHILLIPS, Birmingham; Dr. McCRAITH, Smyrna; Mr. N. DAVIES-COLLEY, London; THE SECRETARY OF THE NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE, ETC., London.

BOOKS, ETC., RECEIVED—  
J. and A. Churchill's Half-yearly List of New Books and New Editions, January to June, 1883—Report on the Health of the Borough of Birmingham, etc., for the Year 1882—Excision of the Knee-joint, by George Edgeworth Fenwick, M.D., C.M.—Proceedings of the Society for Psychological Research, April, 1883—The Political Powerlessness of the Medical Profession, by B. Foster, M.D., F.R.C.P.—Report of the Manchester Royal Infirmary and Dispensary, etc., June 25, 1882, to June 24, 1883—The Hygiene of Armies in the Field, by Robert Rawlinson, Esq., C.B.—Prognosis in Cases of Refusal of Food, by Henry Sutherland, M.D.—Health Lectures for the People, vol. vi.—Report on the Health, Sanitary Condition, etc., of Kensington, by T. Orme Dudfield, M.D.—Suggestions for Preventing the Spread of Infectious Diseases, by the Vestry of the Parish of St. Mary Abbots, Kensington—Memorandum on the Threatened Approach of Cholera, by the King and Queen's College of Physicians in Ireland—The Air Cure of Tubercular Consumption, by Henry MacCormac, M.D.—Port of London Sanitary Committee Medical Officer of Health *in re* Cholera Regulations—The Great Eastern Railway Company's Tourist Guide to the Continent—Home Nursing and Sick-Room Appliances, by Eva C. E. Lückes.

PERIODICALS AND NEWSPAPERS RECEIVED—  
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Physician and Surgeon—Philadelphia Medical Times—New York Medical Journal—Revue de Médecine—Therapeutic Gazette—Australasian Medical Gazette—American Journal of Obstetrics—New York Review—Leisure Hour—Sunday at Home—Girl's Own Paper—Friendly Greetings—Boy's Own Paper—American Progress—Polyclinic—Iowa State Medical Reporter—Revue d'Hygiène—Sanitary Journal—Brain—Caslon's Circular.

## APPOINTMENTS FOR THE WEEK.

July 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

30. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

31. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

August 1. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

3. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



# FIFTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

HELD IN LIVERPOOL, JULY 31 AND AUGUST 1, 2, 3, 1883.

## PRESIDENT'S ADDRESS.

By A. T. H. WATERS, M.D., F.R.C.P.,

Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

## THE PRESENT ASPECT AND FUTURE PROSPECTS OF MEDICINE.

GENTLEMEN,—I esteem it an honour of no common kind to be elected President of the British Medical Association, and to be called upon to take the chair at one of its annual gatherings; and to me the honour has a special value, for I can look back on many years of close relation with the Society: it has been the means by which I have formed friendships whose importance I cannot over-estimate, and its meetings have been amongst the most interesting circumstances of my life. Your kindness, therefore—the kindness of my fellow-residents, and of the Association at large—in placing me here to-day, deserves my warmest thanks, and will always be held in grateful remembrance.

Twenty-four years have passed since the Association met in Liverpool to celebrate its twenty-seventh anniversary. These years have been marked by the uninterrupted prosperity of our Society, by a large increase in our numbers, and an increasing interest in the proceedings of our annual gatherings. With reference to our success, it may, perhaps, be sufficient to say that, whereas at that time and up to 1866 we numbered about 2300 members, we are now 10,000 strong. May the future progress of the Society be ever in accordance with its experience of the past; and may he who shall open its next session in this city be able to say, with as much truth as I can to-day, that the Association has increased in strength with its increased years.

But, gentlemen, whilst we congratulate ourselves on the success of our efforts in connexion with this large Association, let us never forget that we are all members of a still larger body—that we belong to the great commonwealth of medicine, which knows no distinction of race, or clime, or people; and that, whilst it is our duty, and should always be our aim, to promote the special objects for which our Society was founded, our highest duty and our noblest aim should be to foster the general interests of medicine, and to endeavour to advance it as a science and as an art; and, in the few remarks which I have to address to you on this occasion, I purpose to dwell, very briefly, on some of those points which seem to me worthy of our attention with reference to the present condition and future prospects of our profession; for, although there are many topics of local interest to which I might refer, all that relates to Liverpool—its medical history, its hospitals, its School of Medicine, its University College, its public buildings, its river, and its docks—has been so well treated of in some recent numbers of our *Journal*, that any further observations on the subject are altogether unnecessary.

When last we met, in Worcester, we celebrated our jubilee, and it was well to look back on the period which had elapsed since our Society was founded, and to refer with satisfaction to the good work which it had done, and the progress which medicine had made during the previous fifty years. And whilst echoing to-day all that was then so ably expressed, I think it would be well if we were to consider that we have now entered on a new phase—that we have taken, as it were, a new departure, and that with the great advantages we possess we should, as a society, and also as a profession, strive to develop our science more rapidly in the future than it has been developed in the past, and that our progress should be more marked in all that relates to the higher aspirations of our calling.

Nor are there wanting signs which point to the probability of such a consummation. We now see a higher standard of

medical education insisted on; we see, on all sides, the inductive method of investigation brought to bear on the great problems of medicine; more and more we see dissatisfaction with our present uncertain and inexact knowledge; and we cannot doubt that the observations which are being carried on, and especially those which are being conducted under the auspices of our Collective Investigation Committee and of the Society for the Cultivation of Medicine by Original Research, will before very long bear fruits, and lead to generalisations of the most important kind.

To my mind there is nothing in the present aspect of medicine more satisfactory, or more likely to raise it from the region of empiricism and place it on a higher scientific level, than the endeavour now being made to render our knowledge more definite and exact; and if I were to point to one circumstance which, in my opinion, has, probably more than any other, contributed to this result, I should say it was the introduction into our practice of *instruments of precision*. These have furnished us with means by which the senses may be placed in immediate relation with the actual phenomena of disease, and these phenomena are sometimes of so simple a character, yet so indicative of the general morbid state, and require so little mental analysis, that the very tyro can almost read their significance.

No more important step was ever made in practical medicine than that of the application of physical principles to the diagnosis of diseases of the chest. In what condition would now be our knowledge of diseases of the lungs, had the researches so largely associated with the name of Laennec never been made? In what condition was the knowledge of cardiac diseases before the investigations and experiments of the physiologist gave us definite information with reference to the movements of the heart, the action of its valves, and the causes of its sounds? The differentiation of lung and heart affections, by the aid of physical inquiry, the possibility of making an exact diagnosis without investigating one single general symptom, constitute a triumph for medicine which is not to be surpassed in the practical application of scientific principles in any other department of human knowledge; and we must not forget that this marked advance has been achieved in a comparatively short space of time, for it was not till 1819 that Laennec gave his observations to the world.

What can be more striking than the results of physical inquiry in pulmonary or cardiac diseases? Let us suppose a student in medicine following, for the first time, a competent teacher through the wards of a hospital. He sees him stop at the bedside of a patient suffering from one of these affections; he watches him as he makes his examination; he hears a few leading questions put; he sees a few gentle blows struck; a brief application of the stethoscope; and then, without any hesitation, the physician, turning to his class, tells of the nature of the case—that there is consolidation of a lung; effusion into the pleura; disease of a particular valve of the heart; hypertrophy of its walls, or degeneration of its fibres. He speaks of the mode of origin of the affection, the course it will probably take, and the issue that will come. Our student is struck with astonishment at the apparent facility of the diagnosis and the rapidity with which it has been made. He watches the progress of the disease, and he finds becoming developed the conditions which were foretold; and (if, unhappily, the case terminate fatally), on a subsequent day, following his teacher to the post-mortem theatre, he sees the body of the patient submitted to examination; he sees revealed by the scalpel the condition which exists. He sees that there is consolidation of a lung; effusion into the pleura; valvular disease of the heart; hypertrophy of its walls, or degeneration of its fibres; he sees, in fact, a verification, in its minute details, of the diagnosis that was made, and he is apt, perhaps, at once to conclude that medicine is one of the most exact of the sciences.

It would be well if in all departments of medicine there were the same facilities for exact diagnosis as in diseases of the heart and lungs; but what the application of acoustic principles has done in these affections, the application of chemical principles, and the use of the microscope, the ophthalmoscope, the laryngoscope, and the sphygmograph, have in a measure done for the diseases of some other organs. And may we not hope that, with reference to the diseases of the nervous system—the most obscure of all which come under the notice of the physician—the re-



searches of the present day, and the attempts now being made to clear up our knowledge of the physiology of the brain, and to localise its various functions, may be followed by results which will add largely to our powers of differentiating nervous affections, and of successfully treating them?

Again, in referring to instruments of precision, let me observe how important are the results which have followed the use of that instrument which, when the Association last met here, was scarcely ever used in this country, but which is now the constant companion of every practitioner—the clinical thermometer. How valuable is the information which it gives! How intimately does it place that important factor of fever—increased temperature—under our observation! Without attempting to discuss the relations of heat to the other phenomena of fever, I may observe that, in a large number of cases of disease, the measure of the temperature is undoubtedly the measure of the danger; and that the immediate recognition of its rise to an inordinate extent is the first step towards the application of means on which the life of the patient may depend. Were this the proper occasion, I should like to dwell on the great value which the scientific use of the thermometer has been, and is likely still further to be, to the practical physician. Not only has it enabled him to recognise conditions of hyperpyrexia fraught with extreme peril, and thus to use at the right moment measures for reducing temperature which have been followed by the most beneficial results; not only has it afforded a means by which the constant attendant on the sick can ascertain the development of serious symptoms; but its further application, and the recognition, by its use, of the special oscillations of temperature which characterise some diseases, have enabled the physician to differentiate between affections in which other means of diagnosis have been insufficient; whilst, by still more extended observations with the instrument, we shall perhaps be able to explain, more fully than we now can, the causes which underlie the variations of temperature which are so marked a feature of some affections; and possibly this knowledge may influence beneficially our treatment of them. And, in referring to this subject, I cannot refrain from alluding to the fact that it was a Liverpool physician, Dr. Currie, who, early in the present century, was the pioneer in the use of cold applications to the surface of the body in the treatment of fevers; and, although Currie's practice fell into disuse, the merit of initiating a method of reducing temperature, which the use of the thermometer has enabled us in the present day to place on a more successful basis, may, I think, be fairly claimed for him.

How often has the use of the laryngoscope enabled the practitioner to recognise the true bearings of certain laryngeal symptoms, and to differentiate between organic disease of the larynx and the results of pressure from a thoracic tumour! How often has it enabled him to decide on the nature of a laryngeal growth, and the possibility, or otherwise, of successful medical or surgical treatment! How much do we not owe to the introduction of the ophthalmoscope—an instrument which has literally thrown a flood of light on the affections of the eye, and may be said, indeed, to have revolutionised the whole practice of ophthalmic medicine; whilst, by enabling us to recognise certain conditions of the eye, and to interpret their significance with reference to other morbid states, it has materially aided the work of the general physician!

The sphygmograph is an instrument which, though largely employed in hospital work, has not hitherto found its way into general use. It cannot be said to have had much influence on our practice; but I think we often derive important indications from it with reference to the state of the arterial system, and the degree of arterial tension which exists; and possibly by a more frequent employment of it we might be able to recognise, at an earlier stage than we now can, those manifestations of incipient disease which frequently pass unnoticed, and therefore untreated. Further, in certain acute diseases, the sphygmograph often gives indications which are important in regard to prognosis. The hyperdiastolic pulse, as shown by the instrument, may indicate the extreme gravity of a case which other symptoms fail to point out.

I am glad to see that in the Section of Medicine a discussion is to take place on the subject of arterial tension, and I hope that some valuable information may be elicited from

it. I believe that important results may be expected to follow from more exact observation on the condition of the arterial system.

The great results which have followed the application of physical principles to the recognition of disease, constitute the common-places of medicine of the present day; and perhaps I ought to offer some apology for dwelling upon them; they are, nevertheless, the great facts of medicine, they are the facts to which we can point as showing the scientific basis of our art, and their value can be appreciated only by those who are engaged in the practical application of therapeutics. They are, moreover, the main guarantee which we have for progress in the future; for who shall doubt that the next half-century will be more fertile in the production of instruments of precision, and in bringing scientific principles to bear on the work of the physician, than that which has just passed? Who shall doubt that as the result of the more rigid application of the inductive method of research, and more careful and combined clinical investigation, our powers of generalising on disease, and of differentiating between the variations which it presents, will be largely increased; that diagnosis will be more easy, and treatment more successful?

In considering the standpoint of medicine, we should always bear in mind that medicine must be judged by the therapeutic results which it achieves; and in proportion as we can show that the researches of the physiologist, the pathologist, and the chemist, and the application of scientific principles, have enabled the physician to deal more successfully with disease, to anticipate its development, to recognise its earliest symptoms, to mitigate its severity, and reduce its rate of mortality, so do we establish for our art a claim on the confidence and gratitude of mankind; and in this respect the present state of medicine shows no slight advance on the past, and promises a more rapid progress in the future. The past five-and-twenty or thirty years—not to go further back—have been marked by the general development of views with reference to many diseases, such as have largely and beneficially influenced our treatment of them; and as I took an illustration of the value of physical investigation from diseases of the chest, permit me to refer again to some of these affections in speaking of the question of treatment. With regard to the affection which we term pneumonia, have we not seen the introduction into practice of a mode of treatment which has deprived the disease of much of its terror, and greatly reduced its mortality? Whatever be the views which we entertain of the nature of pneumonia, the important fact remains that we may enumerate amongst the successes of medicine of the present day a large reduction in the mortality from the affection.

Again, the recent development of the practice of tapping the chest in pleuritic effusion—an operation comparatively rarely performed thirty years ago—is, in my opinion, a very marked improvement in therapeutics. Those who have carefully watched the progress of medicine in this matter, know full well how great have been the changes which have taken place within the last quarter of a century, and especially since the introduction of the aspirator. It is impossible to refer to all those to whom we are indebted with reference to this subject, but Trousseau, as a pioneer, and Bowditch, whose large experience and satisfactory results exercised so beneficial an influence, I must not pass over; whilst there are many in this country to whom we owe no less a debt of gratitude. There is, perhaps, from the facility with which tapping may be performed, and the almost entire absence of risk when it is properly performed, a fear that it may sometimes be resorted to unnecessarily. But, from what I may term a somewhat large experience in the operation, I can speak with confidence of its value and safety in both acute and chronic effusions; and I cannot but think that, as the result of the early performance of the operation, we shall see, every year, fewer of those cases of deformed chest which so frequently follow neglected pleuritic effusion.

How satisfactory have been the practical results which have followed the researches that have been made, within the past half-century, into the nature of continued fevers! It is now about forty years since Stewart (whose recent loss we have to deplore) published his investigations in typhus and typhoid, and showed their distinct and separate individuality. Other labourers have since worked in the same



field, and have established, beyond a doubt, the facts which he then demonstrated, the knowledge of which has largely tended to the prevention of these affections, and enabled us to trace to their source many outbreaks which, in former times, would have been involved in mystery. Nor can we point, perhaps, to any one circumstance which has had a more beneficial influence on the treatment of these diseases than the recognition of the pathological changes by which they are characterised. The precautions which we consider imperative during convalescence in the one disease—precautions which may be, in large measure, neglected in the other,—are but the outcome of the careful investigations which have been made into the morbid changes by which the two affections are attended. And if we have abandoned the idea that these fevers can be cut short by any measures, or the administration of any drug; if we have no faith in any specific line of treatment, and are, for the most part, content to watch our patients carefully, and to guide them, as it were, through their attacks, this is not scepticism—it is the result of a more intimate knowledge of these diseases, of a better acquaintance with their natural history, and a better appreciation of their pathological changes. We wait for further insight into their essential nature, and we are not without hope that fresh discoveries will give us increased power, in regard both to their prevention and their treatment.

It is impossible to enumerate the various affections in which there is a marked improvement in treatment, and those which I have referred to must be considered simply as illustrations of my position; but whilst I speak with satisfaction on this subject, I must not forget to mention that, in the midst of many successes, we have instances of, I will not say actual, but comparative, failure. Our knowledge of the pathology of some affections remains very imperfect, and our therapeutics are in some respects very unsatisfactory. Although rheumatic fever is one of the most common diseases, it must be confessed that we are ignorant of its pathology. During the past few years there has been introduced into practice a mode of treating the disease by the compounds of salicylic acid, which has met with general adoption, and has been largely successful. I can add the testimony of my experience in its favour; but still, with all the opportunities which we possess of studying the affection, we are as yet unable to give any satisfactory explanation of its essential nature.

Again, how unsatisfactory is the knowledge we possess with reference to the pathology of diabetes! We have long recognised its clinical features, and we are often able to modify its course and mitigate its symptoms; but of its real nature we are ignorant, and nothing has tended to show this more than the discussion recently carried on at one of our societies. But this confession of our ignorance is one of the most promising features of our day; it is that which gives us assurance that every effort will be made towards increased knowledge in the future. Whence comes this want of success in the investigation of the nature of diabetes? We have approached it from the physiological side, from the chemical side, and from the pathological side, and have failed. Can we hope that by combined observation of its clinical features, of its life-history, and its relations to families and individual peculiarities, we may elucidate its nature? May we hope that it is one of those subjects which will be inquired into, and the problems of which will be solved by the labours of our Collective Investigation Committee? I commend it to their consideration.

And here I must express the great satisfaction with which, in common, I am sure, with every member of the Association, I have seen the establishment of this Collective Investigation Committee, how strongly I feel that it is capable of accomplishing most valuable work, and how much I think we are indebted to Professor Humphry for initiating the movement. Doubtless a large part of the work of the Committee will consist in collating facts with reference to specific diseases; but there is one line of inquiry which, I trust, will receive from it a share of attention. I mean the consideration of the points of difference between functional disturbances and the early symptoms of organic affections. How difficult is it sometimes to say, when some slight symptom presents itself, and when no objective signs of organic disease can be discovered, whether that symptom indicates incipient structural change or mere functional disarrangement! Upon the right appreciation of the phenomenon, however, the safety of the patient may depend; for, although

we stand almost powerless to arrest the course of confirmed structural changes, there can be no doubt that, could we recognise the earliest steps in these changes, could we see clearly the points of departure from normal conditions in various chronic and hitherto incurable maladies, we might do much to check these alterations of structure, and prevent the further progress of the disease.

In an investigation of this kind, our hospital work is comparatively useless. There we are brought into relation, for the most part, with disease already well marked—disease which has produced its easily recognisable results; and if patients present themselves with slight symptoms, they perhaps soon recover, and are lost sight of. It is in the daily work of private practice that observations such as I have referred to can alone be satisfactorily made; and it is therefore to the great bulk of practitioners throughout the country that we must look for aid in this matter. It involves a lengthened study of each individual case; a close watching, not for weeks or months, but for years; and perhaps the facts gathered in a lifetime might be but few. It relates to the consideration of subjective symptoms which we cannot accurately estimate with our present physical means, but which are intimately associated with individual peculiarities and idiosyncrasies, and often form the most important elements in our diagnosis, prognosis, and treatment. It may be that, with more refined instruments of precision and greater scientific knowledge, we shall bring many of these symptoms within the range of physically recognisable facts; but, in the meantime, inquiries such as I have referred to may materially aid us.

But, gentlemen, of all the questions which now engage the attention of the pathologist and physician, there is no one which surpasses in importance that which relates to the dependence of certain diseases on micro-organisms. The subject is one of the greatest possible interest, and fraught with bearings of a practical character which already have had, and are doubtless destined still further to have, a vast influence on the prevention and treatment of disease. The establishment of the fact that *pébrine*, chicken-cholera, and splenic fever depend on the presence of specific microbes, and that relapsing fever has associated with it, if not indeed causing it, a like organism, must be classed amongst the most striking discoveries of the present day, and undoubtedly mark an epoch in the history of pathological science; whilst the gradually accumulating evidence that tuberculosis is the result of a parasitic element seems likely to lead to its being placed in the same category as those affections, the pathology of which appears now to be clearly established. Moreover, the brilliant results which have followed the process of attenuative culture of the virus of some of the affections to which I have referred, and the protective influence of vaccination by these attenuated fluids, as carried out by Pasteur, lead us to hope that, by further researches in the same direction, we may yet discover some means for checking the ravages of tuberculous and other allied diseases, as certainly as the great discovery of Jenner has enabled us to check the ravages of small-pox.

Nor is it possible, perhaps, to point to any single fact in connexion with the practical application of science which is more striking than that of the relation of disease to minute organisms. The whole subject has been evolved from the researches of a few naturalists who studied the smallest of living beings. What possible use, might it not have been said, could investigations of this kind have in reference to the maladies either of man or the lower animals? And yet we have seen that these studies of minute life have led to the prevention of a disease which threatened to destroy the source from which we derive one of our staple products of manufacture; they have been largely instrumental in checking the ravages of a malady which is so fatal amongst the flocks and herds of various countries; they have led to the introduction into the practice of surgery of a mode of treatment, the beneficial effects of which it is not for me to dilate on; and, lastly, it seems likely that they will materially alter our views with reference to some of the most serious diseases to which mankind is subject.

These facts tend to show on how wide a basis the science and art of medicine rest, and how closely their advance is mixed up with, and dependent upon, the progress of other sciences. In truth, there is nothing in the whole range of nature which the physician may not make use of for the purposes of his work.



Of the many problems which await solution in connexion with the subject which I have just considered, no one is more pressing than that of the dependence, or otherwise, of pulmonary consumption on the bacillus which has been so largely found, not only in the morbid deposits which result from the disease, but in the expectoration of phthisical patients. Should it be found that in all cases of genuine tubercular phthisis the *Bacillus tuberculosis* is present, and should future researches show that the disease is caused by the parasite, a solidity will be given to the pathology of the affection, and perhaps the therapeutics of it will be materially aided. Speaking from clinical experience, I cannot but conclude that the disease to which we give the name of phthisis has more than one mode of origin. Further investigation will perhaps clear up the doubt which exists on this point; and here I should like to observe that there are some affections of the lungs which closely resemble, in their clinical features, acute phthisis, and yet which, under careful treatment, do not go on to a fatal issue. Of such cases I have now seen several. Their general symptoms, their physical signs, their temperature-ranges made me conclude that I had to deal with cases of acute pulmonary tuberculosis, and I have expected a fatal result, but recovery has taken place. These cases occurred before attention was directed to the presence of bacilli in the sputum of phthisical patients, and no examination of this secretion was made. In instances of a similar kind, we shall now be able to use this method of investigation, and possibly it will afford a valuable means of differential diagnosis, and enable us to give, in cases where the bacilli are absent, a more favourable prognosis than the general symptoms would otherwise warrant. I may say, in regard to the cases to which I have referred, that they were treated by free nutrition, the administration of quinine, and a somewhat liberal quantity of alcoholic stimulants.

The great point which remains to be decided, and which I hope the discussions which will take place at this meeting will help to decide, is, whether the so-called *Bacillus tuberculosis* is the cause, or the consequence, of the tuberculous disease.

I have spoken of the advance which medicine has made as the result of the application of scientific principles, and an improved knowledge of physiology and pathology; and I would further remark that the past years have been fertile in the introduction of substances which are of the highest value to the physician in the actual treatment of disease. The bromide compounds, chloral, croton-chloral, the various forms of pepsine and pancreatine, the salts of salicylic acid, may be enumerated amongst others which the chemist has furnished for our use; and, whilst we may perhaps feel that he will best serve the ends of medicine who shall teach us how to employ most successfully the remedies we already possess, and whilst we would deprecate the incessant desire for the introduction of new chemical compounds, let us by no means discourage the laudable ambition of enriching our Pharmacopœia with agents of sterling value. We must never forget that, in addition to the useful drugs to which I have already referred, the present age has given us, by the agency of the chemist, means by which we can annihilate the pangs of the most painful manipulations of surgery, and obviate the tortures formerly incidental to all operative procedures.

In the face of such a fact as this, we may be pardoned if we express a doubt whether we have arrived at the limit of our therapeutical discoveries, and whether we may not hope that the labours of the chemist will, in the future, give us new elements for our use, or that some of those compounds which now possess only a scientific interest may, in course of time, pass into the hands of the practical physician, and add to his powers of controlling certain forms of disease.

It is not for me to speak of the triumphs of modern surgery, and the successful results which have followed the application of scientific principles in this great department of medicine. We are apt, perhaps, to conclude that it is here that the most striking advances have been made; but I venture to think that, in proportion to the difficulties which have had to be solved at the hands of the physician, medicine pure has made a progress as great as that which has characterised the sister art of surgery, or, indeed, any other art in which science has been brought into practical application. Consider how difficult are the problems which

disease presents; the complexities of organic life; the many peculiarities and tendencies of each individual man; the inherited liabilities; the subtle influences of habit, of diet, and of climate; and those social and moral forces which exercise so great a power on the varying conditions of civilised life; and then say whether it can be expected that we shall be able readily to arrive at grand generalisations on disease. In the great progress which has been made during the past fifty years, we have the strongest possible indication of increased progress in the future. The labours of each generation will correct some errors of the preceding one, and will carry us somewhat nearer to the truth; but the temple of medical science can never be crowned. Each addition to our knowledge will but point out to us fresh fields for labour—new subjects for investigation; and we may rest assured that the demands which will be made on the practitioners of medicine will ever be increasing, as it shall become more apparent how intimately their labours, and the sciences on which medicine depends, are associated with the well-being of mankind.

And there is, I think, a favourable circumstance in connexion with our profession at the present time which is likely not only to have a beneficial influence on its actual advance, but with reference to the estimation in which it will be held by the public at large. Resting, as it does, on a basis of scientific observation, and depending for its progress on scientific researches, it will meet with more and more recognition in proportion as it appeals to a public which is more and more scientifically educated; and we now see that physical science is assuming, more and more, its proper position in the education of the young. Whilst I would express a hope that, in the general education of the people, and especially of those who are in the higher walks of life, the cultivation of literature in its widest sense will always maintain a due prominence, I trust that the movement which is now so perceptible with regard to the teaching of physical science, will continue to meet with that support which I think it so fully deserves; and in connexion with this subject I cannot but express the satisfaction which I, and I am sure I may say we all, have felt in seeing rise up, in the various great centres of population in this kingdom, those institutions for higher education which add so much to the teaching power of these centres. The movement is really a comparatively recent one, and we in Liverpool were somewhat backward in it; but, a few years ago, some of those who had long felt the want which existed, determined to make a strenuous effort to give to this city what Manchester, Birmingham, and other cities had already provided for themselves. Relying on the liberality of the public of Liverpool, an appeal was made for the foundation of a college in which the higher branches of the arts and sciences should be taught. That appeal was largely responded to, and now we see in our midst a college, with a staff of professors, which I trust is destined to do a work which will reflect honour on itself, and credit on those who founded it. It is true that, as yet, the organisation of the institution is not complete, and that a further sum of £50,000 is wanted, in order that the full advantage of affiliation with the new Victoria University may be reaped. But we are sanguine that this amount will soon be forthcoming, and that the position of equality with Owens College with regard to university degrees will be assured.

The School of Medicine, so long known in connexion with the Royal Infirmary, has now become the Medical Faculty of the College.

Since we met in Liverpool, as I have already said, nearly a quarter of a century has elapsed; and by the gaps which time has made in our ranks, and the fact that the Association is now reassembled here, we are reminded that, whilst individuals pass away, societies and communities may remain. I trust that the time is far distant when our society will show any symptoms of degeneracy or decay; but in its very magnitude and its great prosperity there exists an element of danger. I have, however, the strongest possible conviction that the wisdom of the Association guiding and directing its executive body, which shall be at once the representative and the reflex of the whole constituency, will conduct the society safely through the dangers and difficulties which may beset its path. United, we are all-powerful. Acting in unison, and animated with one feeling for the progress and well-being of our profession, there is no



subject in connexion with its scientific, its political, or its social aspect which we may not grapple with, and grapple with successfully. As year by year rolls on, we may hope that our numbers will increase; until at length it shall be a very exceptional circumstance in this country for a member of our calling not to belong to the British Medical Association. In concentrating, as we may then be able to do, the whole force of the body medical on any given object, we shall exercise a power which may either compel Nature to reveal her innermost secrets, or influence a Government in the legislation of the State.

But time warns me that I must bring my remarks to a close. Looking to the results which have been achieved, I feel warranted in saying that, with our present advantages, and working from our present standpoint, we have every reason to believe that the progress of medicine in the future will be marked by more rapid strides than those which have characterised it in the past; and, standing here to-night, I can look forward with confidence to the time when a future President of the Association, inaugurating the centenary of its birth, shall speak with triumphant voice and in glowing language of the advances which our profession shall have made. He shall tell of improved methods of research, and new instruments of diagnosis; he shall speak of the important generalisations which the collective investigation of disease, carried on for fifty years, has led to; he shall point to the greater facilities with which the differentiation between functional disturbances and the early symptoms of organic disease may be effected; he shall perhaps be able to show how many affections which ultimately lead to great alteration of structure, and eventually to a fatal issue, have their origin in functional disarrangements neglected in their beginnings, and gradually inducing changes which at length become irremediable; and thus he shall show how closely physiology and pathology are connected. He shall, perhaps, be able to point to the establishment of the true pathology of those diseases which from recent investigations appear to be dependent on the presence of micro-organisms, of tuberculosis, and other allied affections, and, as a result of this, he may possibly tell that, by the adoption of a practice analogous to that which has had so marked a result in reference to splenic fever and chicken-cholera, and which has rendered famous the name of Pasteur, an almost complete immunity is enjoyed from those terrible maladies which have hitherto in large measure baffled the skill of the most accomplished physicians.

And, gentlemen, amongst the many changes which, I venture to think, these revolving years will bring, may we not hope that, with the higher status as a science which medicine shall have attained, and the higher estimation in which the profession shall be held, will have come a fuller recognition of the claims of its members to some of the higher honours of the State? And perhaps the President of that occasion, or some of those who may listen to his words, may belong to that upper branch of our Legislature to which hitherto no practitioner of our art has reached. The votaries of medicine want no other encouragement than that which comes from advancing their own science to stimulate them to the highest exertion for the general weal, but it cannot be doubted that, both in the interest of the public and in reference to the promotion of the health and well-being of the people, the presence of medical men in the House of Lords would strengthen the powers of that House and beneficially influence legislation.

But if the results to which I have alluded, and the advances which I have ventured to foreshadow, are to be realised,—if medicine is to be raised from the region of empiricism, and to be placed on a higher scientific level,—and if we in this country are to take our part in the researches by which the great problems now awaiting solution are to be determined, then must all unwise legislative restriction on the work of the physiologist and pathologist be withdrawn; then must all measures which fetter the action of the original investigator be removed; and I trust that, by the labours of the society which has been established for the cultivation of medicine by original research, a more enlightened public opinion will be formed, which will aid in bringing about these results.

Medicine must more and more proceed on the lines of exact observation and careful scientific inquiry; and in connexion with this it is satisfactory to know that one of our great guilds is about to devote a portion of its means to

the encouragement of work such as I have referred to; and I trust that our own society will be able yearly to devote larger sums than at present to a like cause.

And now, gentlemen, in conclusion, permit me, in the name and on behalf of the local members of the Association, to bid you all a cordial welcome to Liverpool. Our Association is now so numerous and so powerful, its meetings offer so many features of interest and attraction, that, wherever they may be appointed to be held, we look forward with confidence to large and influential gatherings; but we desire that this meeting shall not only be successful in a scientific and professional point of view, but shall also be rendered interesting and agreeable to all who may honour us with their presence. We cannot show you grand architectural monuments mellowed by age and famous in the annals of history, such as characterise our metropolitan towns; we cannot take you to classic halls like those which give so great a charm to the visits which we pay to our university cities; but we trust that in traversing the different parts of this great centre of commerce, and in visiting the docks which line the shores of the Mersey, you may see something that will interest you; and that when your temporary sojourn amongst us shall be over, you may feel that, not only have you assisted at a successful anniversary of the British Medical Association, and contributed to the promotion of those objects for which it was founded, but that your visit has been one of satisfaction and of pleasure.

## ADDRESS IN SURGERY.

By REGINALD HARRISON, F.R.C.S.,  
Surgeon to the Liverpool Royal Infirmary.

### SOME RECENT ADVANCES IN THE SURGERY OF THE URINARY ORGANS.

MR. PRESIDENT AND GENTLEMEN,—The honour of addressing you on this occasion having been conferred upon me by your Council, I cannot enter upon the task that is before me without expressing my consciousness of inability to accomplish it in the manner I would desire. This sense of insufficiency is by no means lessened when I look at the names of those who have preceded me; when I remember the interest with which I, in common with you, listened to their words; and when I consider how completely abreast this great Association is kept, by means of its *Journal*, with everything relating to the progress of surgery. On the other hand, long connexion with this Association gives me the assurance of having to address a sympathising audience—one disposed to overlook defects in any honest endeavour to set forth the advancement made in our art.

Surgery, I need hardly tell you, has long been cultivated in the new city which has now the honour of receiving you. The hospitals of Liverpool, and their records, show that the same ardour prevails here as elsewhere, both at home and abroad; whilst its position as a school of surgery indicates that it has entered, not unsuccessfully, into honourable rivalry with its competitors. But it may be asked, especially by those visiting Liverpool for the first time, Are there no traditions here? Are there no footprints of those who have left behind them works which place us in their debt, and which will render their names famous wherever and as long as surgery is known? It seems to me that one advantage connected with the itinerant character of our meetings is, that places suggest references to local celebrities of the past, whose works cannot be thought over without advantage. In our desire to push forward, we sometimes forget to look back, and to reflect upon that which has been achieved and how it was brought about. Such reflections cannot fail to be of service in reminding us that surgery is not entirely of modern creation, that we have a few distant relations whose connexion it is desirable to keep up, and that there still remain links which associate us with the great ones of the past. These links connect us, not here alone, but everywhere, with the names of Park and Alanson, to whose work I now wish for a moment to refer.

Henry Park was Surgeon to the Royal Infirmary from



1767 to 1798. I cannot do better than quote a passage which our local historian, Sir James Picton, has selected (*Edinburgh Review*, October, 1872) as paying a deserved tribute to his memory:—"In the latter portion of the last century, when a vigorous flash of originality seemed to light up the annals of surgery, Park, of the Liverpool Infirmary, may be said to have accomplished the first act of conservative surgery. His patient being a sailor, to whom the loss of a foot and leg would have been tantamount to the loss of his means of getting bread, determined him to make the experiment of simply excising the diseased part—the knee-joint—and retaining the foot and leg. This he did so successfully that, to use his own words, the patient some years after the operation 'made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardship without any further complaint in that limb.' This was a crucial test of success, that should have stamped the operation as one of the greatest surgical triumphs of the time; but, like so many other great strides taken in that age of extreme vivification, it was in advance of its fellows, and was destined to be arrested for the better part of another half-century."

I need not on this occasion dwell on the claims that excision of the knee-joint has to be regarded as one of the recognised operations in surgery. Though there may be differences of opinion in reference to the circumstances indicating it, there can be no doubt that it will for ever remain as a brilliant memorial of the surgeon whose name is associated with it.

Of Mr. Alanson, Park's colleague, and Surgeon to the Royal Infirmary from 1770 to 1794—whose work has been aptly referred to by Mr. Sampson Gamgee(a) as "one of those forgotten surgical classics which I would venture strongly to impress on the attention of my younger brethren"—I will speak in the following passage from the Presidential Address of the late Dr. Vose, delivered on the last occasion this Association met in Liverpool:—"To Mr. Alanson, formerly a Surgeon to our Royal Infirmary, we are indebted for many important suggestions, made at a time when the science of hygiene was but little regarded anywhere. His remarks upon the ventilation of hospitals, the use of iron bedsteads, the necessity of frequent whitewashing, and the establishment of sanatoria in the pure air of the country for convalescent patients, testify to the correctness of his professional judgment, and to his zeal for the welfare of his fellow-creatures. It is by his treatise upon amputation, however, that the memory of this gentleman, as an original thinker, in surgery, has the strongest claims to our gratitude and regard. He tells us that, among upwards of forty amputations performed upon the old system, which had come under his notice, ten died of tetanus, two of bleeding, three from mortification, four from exhausting suppuration; while eighteen experienced hæmorrhage, and nearly all had excessive fever. Most of the patients suffered from exfoliation of bone, conical stumps, or wounds that would not heal. After the adoption of his improved method of procedure, he had the satisfaction of being able to announce that, out of upwards of thirty amputations, taken indiscriminately, which were performed at the Infirmary, not one died, and none had secondary hæmorrhage; while, in a month after operation, the wound was either altogether or as nearly as possible healed in all the cases."

As is well known, in Alanson's method of amputating, provision was made for the covering in of the bone, after its section, by the integuments.

Such, then, are illustrations of the useful work which was being done by surgeons in this comparatively modern city about one hundred years ago. Gratitude for improvements, the value of which is still fully and freely acknowledged, justifies the foregoing references to the work of these distinguished men.

The selection of material for presenting to you to-day has occasioned me no little anxiety. Following immediately upon an address which will for ever render our jubilee year memorable—an address in which justice was done, by the distinguished representative of surgery from Ireland, to the great subject of surgical progress generally, whilst its prominent features were forcibly brought out,—I may well hesitate where to tread.

In considering the history of surgery as detailed in Mr. Stokes's admirable address, the thought naturally occurs that its diffusion is as remarkable as its progress. Compare, for example, the condition of surgery prior to the existence of our Association, with its position as set forth in the columns of our own *Journal*, or in those of the other great representative of medical opinion in this country, the *Lancet*. In the former period, departures from the ordinary routine of surgical procedure were confined to a few hands, and the benefits resulting from improved methods of treatment were shared in by a very limited number. Now, no sooner is a method of treatment or an operation proved to be efficient, than it is taken up and practised wherever scientific surgery can reach; the peer is no better off than the peasant, and the cottage-hospital rivals in its successes those obtained in more palatial edifices.

So beneficently catholic is our profession that it hails with the greatest satisfaction not only the discovery of new means of relief, but the adaptation of others to a form which permits of their more general adoption and usefulness; whilst, on the other hand, it regards with suspicion all methods of treatment which unnecessarily restrict or conceal that which was intended for the common good.

I propose to occupy the remainder of the time at my disposal by a reference to some of the more recent advances and work in connexion with the surgery of the urinary organs.

Commencing with the kidneys, we are at once struck with what surgery is doing for them. Until quite recently the diseases of these organs were regarded as belonging almost exclusively to the province of the physician, and probably they would have remained so had preventive medicine obtained fuller development.

A more extended acquaintance with the pathology of the kidney has brought to light conditions in which the work of the physician requires to be supplemented by that of the surgeon. Pain arising from an undue mobility of the organ, tumours, deposits, hæmorrhages, and collections of fluid within it—all these morbid states are now recognised as capable of relief or cure by fixing, opening, or extirpating the abnormal or disordered organ; whilst numerous illustrations have already been afforded of the successful removal of stones from positions where they must have ultimately led to the disorganisation of the kidney in which they had become impacted.

It would be premature at present to endeavour to formulate anything like precise rules in reference to the application of the various operations on the kidney to which I have briefly referred; they are at present comparatively new to us, and we must occupy ourselves in cautiously moving in the direction they indicate, and in collecting experience, rather than in drawing conclusions other than very general ones.

Amongst many valuable contributions to the literature of this subject which have appeared, I would include one by Dr. R. P. Harris (*American Journal of the Medical Sciences*, July, 1882), of Philadelphia, which contains an analysis of one hundred cases of nephrectomy. From this, as well as other communications which have more recently been published in this country, we may draw at least three conclusions of value, so far as the operation of extirpation of the kidney is concerned. These are:

1. That nephrectomy has been the means of saving many lives under circumstances where no other method of treatment was likely to be of service;
2. That this operation has been practised in cases where the probability of a successful termination appeared to be very remote; and
3. That a method of effecting the removal of the organ different from that which was selected, or a procedure less heroic, might, in some instances, have tended to increase the chances of success.

In these directions, then—in selecting cases for operation, in rejecting others as unsuitable, and in determining relatively to the case in question the best method of procedure,—I take it that good work has yet to be done.

It appears to me that among the difficulties we have to contend with in the application of nephrectomy, two stand out prominently: (1) the kidney it is proposed to remove may be the only one; (2) the opposite organ may be similarly affected, though in a less degree, yet sufficient to interfere with those compensatory changes being carried out which

(a) "Transactions International Medical Congress," 1881, vol. ii., p. 352.



are essential when one excretory organ has to supply a lack of service on the part of another. The literature of this subject will already be found to illustrate the class of difficulties to which I am referring.

The lesser proceedings, which include the exploration of the kidney, and the removal of calculi and of pent-up fluid, are necessarily attended with a diminished risk, and have already proved of much value.

In undertaking a new class of operations, we must bear in mind the past history of many methods of treatment, now justly regarded as successes, but which, severally, had a very unpromising commencement. Look at the unsatisfactory position held by ovariectomy only within a period represented by the memory of the majority of us here present to-day. Yet the high dignity to which it has been raised in the rank of surgical operations, by the skill and enterprise of Sir Spencer Wells, Keith, and others, is now frankly and fully admitted by the whole medical world.

In the treatment of certain affections of the bladder, we shall find that much progress has been made, and that the way has recently been opened for prosecuting other important advances. These will be chiefly illustrated by the modern practice of lithotomy and the treatment of tumours and intracystic growths.

Till a few years since, the removal of stone from the bladder by crushing had been conducted on the lines laid down by Civiale some half-century ago. Though this method of proceeding has included amongst its advocates, past and present, surgeons of eminence, it cannot be said that, as then practised, it was either gaining ground or confidence. Indeed, I think I may say that there was an increasing tendency to limit its application and to substitute lithotomy in all cases but those of the simplest kind. The mortality consequent upon the retention of broken calculi within the bladder was sufficient to induce all but the most ardent admirers of lithotomy to hesitate to give it the preference over a proceeding in which, whatever might be the risks, there was at least a guarantee that the whole of the stone had been removed.

Whilst the surgical mind was thus to some extent in doubt as to the limits to which the crushing operation of stone might safely be pushed, two important communications followed rapidly upon each other. That both of them should have emanated from America merely indicates that the desire to advance the art of surgery is not limited to the old country, but is a natural outcome of advancing civilisation and humanity.

The first of these papers was by Dr. Otis, of New York, who demonstrated beyond all reasonable doubt, and in a manner which had not previously been attempted, that the male urethra was capable of safely receiving far larger instruments than were generally employed. Following upon this, and probably influencing the views of the author, came Dr. Bigelow's paper on the removal of stone from the bladder by crushing and withdrawing it at a single operation; the latter communication clearly showing that the bladder was tolerant of much more prolonged manipulation than had previously been believed.

It appears to me that the originality of Bigelow in no way detracted from the importance of the work that had previously been done in this country and elsewhere, or compromised the acumen of those who were most interested in the progress of this department of surgery.

That Bigelow's method of procedure is a great step in advance—that it has extended the limits of lithotomy and curtailed those of lithotomy—there cannot be the least doubt. But to suppose that it is capable of universal application, or ever likely to be so, is as unreasonable as to suppose that the art of surgery in no way differs from the art of administering Holloway's pills. But does the lithotomy of to-day represent the finality of its perfection? I trow not. When we consider what chemistry, electricity, and other agencies are doing—how physical force is in many directions being supplanted by other means,—can we doubt that there are yet improvements in store in the methods of effecting the destruction of concretions within the body? Nay, are there not already significant indications that such improvements are nigh at hand? Is it likely that the fruit of the labours of Garrod, of William Roberts, of Ord, of Vandyke Carter, and others has been already gathered? May not a more perfect knowledge of the physical and physiological laws which regulate the production of concretions in the human

body result in enabling us not only more surely to prevent them, but to destroy them?

Considering the great activity that has within recent years been shown in demonstrating the preventable nature of many diseases, and the energy that has been displayed in grappling with them, it seems remarkable that no adequate steps should have been taken to ameliorate the hygienic condition of certain parts of this country where the amount of calculous disease is excessive, and the inhabitants, consequently, are exposed to an inordinate risk of contracting it. The admirable address by Mr. Cadge before our Association at Norwich, in 1874, furnishes abundant data for the further prosecution of inquiries of this kind. I cannot help thinking that if it could be shown to be even probable that the dogs, cats, rabbits, or frogs of the aforesaid districts were inconvenienced in a like manner with their owners, the matter would long ago have been forced upon our Legislature with all the exaggeration that usually characterises agitations of this kind.

Though surgery has invariably shown itself equal to the circumstances and emergencies with which it has been called to cope—though the prevalence of stone in a district has always been compensated for, as far as this is possible, by the appearance of those most competent to deal with it—these are no reasons why such conditions should be permitted to continue. Had time or occasion offered, I think it would not be difficult to prove that circumstances, either fortuitous or by design, have been found to exercise a marked influence in diminishing or increasing, in certain places, the tendency to calculous disease.

One word in reference to lithotomy before I leave the subject of stone. There is no great operation in surgery, I believe, which furnishes more successful results than this. Taking the experience of the two hospitals in this city with which I have been associated, I find there have been within my recollection 102 cases of lithotomy in persons of all ages, but chiefly in children, and operated on either by my colleagues or by myself. In only five of these cases could I ascertain that a fatal result followed. My late esteemed friend, and our former associate, Mr. Southam, speaking of his own experience of lithotomy at Manchester, informed me that he had operated 120 times, and could only recall one death. In the great majority of the Liverpool cases the stones were not exceedingly large, and I have no doubt that many of them might have been removed by lithotomy. I question, however, whether the small mortality these figures indicate would thereby have been still further diminished, even if the calculation were made on a basis corresponding with the most successful statistics in lithotomy that have hitherto been obtained.

Passing to tumours of the bladder, it is not surprising, seeing what has been done for tumours of the ovaries, uterus, and intestines, by Sir Spencer Wells, Keith, Lawson Tait, Treves, and others, that growths occupying the interior of the bladder should have received special attention. Though the literature relating to this subject has been of a somewhat fragmentary character, such compilations as Stein's recent work, "A Study of Tumours of the Bladder," conclusively show that some gratifying results have already been attained in both sexes. The great distress connected with this class of growths, the uncertainty as to the precise nature of the affection in the first instance, and subsequently the kind of symptoms that accompany it, have naturally suggested the employment of means having for their object their removal by operation.

Sir Henry Thompson has done good service in giving prominence to the employment of digital exploration of the bladder, and in furnishing illustrations of the great advantage that this proceeding is capable of affording in suitable cases.

From a consideration of some of the extremely valuable records which have been published by various surgeons, where the bladder has been opened for the removal of tumours, it appears to me that it might have been better had the operative proceeding terminated with the detection and exploration of the growth by the finger. The chief dangers which experience has shown to be liable to attend the performance of this class of operations, are:

1. The chance of rupturing a bladder, the coats of which have been rendered less resisting than natural.
2. The provocation of a hæmorrhage which it has been found difficult to control.
3. An incomplete removal of the growth.



On the other hand, an examination of many tumours of this kind, of which villous growths or tufts furnish the best examples, shows that there is nothing in their connexions or relations which need necessarily interfere with their complete removal. Precise information as to the presence and attachments of these growths we may now obtain with comparative safety. Whether their removal is to follow upon their discovery will be a matter for further consideration.

With the view of extending our knowledge of these growths, a committee of this Association is occupied in collecting information relating to them. The report of this committee will, I hope, form the basis of an interesting discussion in the Pathological Section, which will be opened by Mr. Paul.

I now come to speak of the prostate, and I shall do so in reference to the part it takes in obstructing micturition, for the reason that it is this symptom which, in some form or other, brings the patient under our care. It appears to me that enlargement of the prostate is specially interesting to us in relation to its earliest, and to its most advanced, forms, and it is to these that I shall more directly refer.

If we take the obstructive disorders of the urinary apparatus, and inquire what feature of them is most detrimental to the associated parts, the answer undoubtedly will be, the misdirection of the muscular force that is thereby entailed. How can we explain the structural alterations which take place behind the obstructed point, and which manifest themselves in different ways, except as the results of urinary retention and retrograding pressure? How frequently do we find, in cases of stricture or enlarged prostate, that the whole of the apparatus behind the primary constriction consists of little else than dilated saccules and tubes! Is not this distinct evidence of back-pressure going on, though it may be imperceptible, from the moment that impediment arises to the escape of urine from the bladder? The more we study animal mechanics, either in their physiological or pathological application, the more can we appreciate the truism that force is never lost. If it is not permitted to act for good, it must be productive of evil; if it is not exerted towards the legitimate fulfilment of a normal act, it must inevitably exercise a corresponding pressure in an abnormal direction. Whenever I see, in the post-mortem room, an ordinary specimen of dilated kidney, tortuous ureter, or sacculated bladder, associated with an enlarged prostate or a stricture, the expression "misdirected force" almost involuntarily escapes from me.

Such considerations as these have long led me to believe that our treatment of prostatic stricture—or by whatever name we know it—commences, as a rule, far too late; we delay until the bladder shows, by the formation of a pouch, or a saccule, behind the prostate, the first bad influence of back-pressure before we seek to rectify it.

I have endeavoured to prove how much good may be done by the adoption of judicious mechanical treatment on the appearance of indications that the prostate is commencing to obstruct micturition, and I have founded my suggestion upon a condition which may be seen illustrated in any museum—viz., one in which, though the gland has become large, obstruction has not been known to occur. An extended adoption of this practice has convinced me that the pressing symptoms connected with an enlarging prostate may be kept in abeyance by the timely employment of those principles of treatment which are generally recognised as being applicable to any tubes within the body which are threatened with occlusion, and are within our reach.

In the more advanced forms of prostatic enlargement, where the bladder has been converted into a receptacle little better than a chronic abscess in which urine stagnates, surgery has done much to afford relief.

When the comfort that catheterism is capable of affording has ceased to be effectual, other plans of establishing a drain for the urine are at our disposal. It is not necessary that I should discuss the various means of effecting this; let me, however, say a few words in reference to two which have more recently come under notice; these are—first, incision into the bladder from the perineum; and, secondly, paracentesis through the enlarged gland.

For the purpose of securing a more or less permanent channel for the escape of urine from the bladder, other than by the urethra, I must admit that, following the practice of Syme, and to some extent of Edward Cock, I have a decided preference for an incision through the perineum, on the

twofold ground of safety and comfort. We have had numerous examples of the great benefit that cystotomy is capable of affording for bladder affections dependent upon a large prostate—none perhaps more striking than the case narrated by Mr. Lund, on the memorable occasion of the meeting in London of the International Medical Congress. The paper closes with this observation: "I have thus placed on record this case, unique in its character, and interesting and encouraging in its results, with the hope that, should a similar case occur to any surgeon now present, he will not hesitate to give his patient the chance of benefit from a course of procedure so simple in its nature, and so likely to be followed by temporary, if not permanent, benefit."—"Transactions of the International Medical Congress," vol. ii.

I may be permitted here to submit to your notice a method of puncturing the bladder through the enlarged prostate which has afforded very gratifying results. It consists in passing the trocar through the gland, and retaining it in the perineum, so as to afford a permanent as well as a convenient drain for the urine. I should have had more diffidence in commending this operation to your notice had it not received the approval of our distinguished associate, Professor Gross, whose contributions to the surgery of the urinary organs are held in deservedly high repute on both sides of the Atlantic.

Though the primary object of cystotomy, as usually practised, is merely to place the bladder at rest by providing a continuous drain for the urine as well as the products of cystitis, it occurred to me, as it had already done to others, that it would be possible to extend this proceeding, with the view of removing those barriers to micturition which the hypertrophied gland so frequently presents.

It was to meet conditions such as these that Mercier introduced and practised division of the prostatic bar by means of a cutting instrument introduced along the urethra. This plan, though admirable in its conception, was open to the objection that in its execution it was necessarily uncertain, there being no means of surely ascertaining that the section was confined to the obstruction to be removed. On carefully considering the position of matters, as well as the proposals that had been made, it appeared to me more reasonable to attempt to divide the prostatic obstruction at the neck of the bladder from an opening made into the membranous urethra, than by means of instruments which had to traverse the whole length of the canal. I have recently brought under notice a case (*British Medical Journal*, June 9, 1883) in which I thought it desirable to explore the prostatic urethra from an opening made in the perineum, and through which I was enabled to divide with precision a prostatic barrier. The division of this portion of the gland was followed by complete restoration of the power of micturition, and has so far proved of permanent advantage.

The proceeding which I have thus put into practice seems first to have suggested itself to Mr. Guthrie, but I cannot find that he ever employed it. That it is not identical with the somewhat extensive incision of the prostate as for lateral lithotomy, which was practised by Sir William Blizard, is at once obvious. Its aim is to divide the obstruction—and the obstruction alone—by an opening so planned as not to expose the patient to undue risk; whilst, at the same time, it is capable of affording the greatest amount of room for manipulation by an extension of the incision, should this be found to be necessary.

I need hardly observe that a proceeding of this kind should be undertaken before the bladder has passed into a condition of confirmed and irremediable atrophy; otherwise, though we may succeed in removing an obstacle to the introduction of the catheter, our prospect of restoring the power of micturition will be as hopeless as it has proved to be under somewhat similar circumstances where the operation of lithotomy has been undertaken.

It is impossible to avoid the conclusion, from their examination after death, that many atonied bladders might have been prevented becoming so by the timely removal of the obstruction by which a condition of permanent paralysis was induced and maintained.

The operative treatment of the enlarged prostate, when it obstructs micturition to a degree that cannot be met by judicious catheterism, is yet, I believe, open to considerable improvement.



Though the literature relating to either complete or partial excision of the prostate is very limited, there is much in it of promise. In one case, where I extirpated the whole gland for malignant disease, the benefit that followed far exceeded my expectations. It was that of a middle-aged man, who, by reason of a carcinomatous prostate, was threatened with a speedy and painful death. I cut down upon the gland in the median line, and succeeded in enucleating it tolerably cleanly with my finger. I saw this patient eight months afterwards in very fair health, and quite able to go about his business. So far, he has enjoyed an immunity from the symptoms which induced me to perform this operation; and, though his disease is a malignant one, we have every reason to be content with the results obtained.

Then we have numerous examples where considerable masses of the prostate have been removed with very great advantage in the course of operations on the bladder. Amongst these I would specially mention an important case by Mr. Bickersteth (Royal Medical and Chirurgical Society, 1882), and, more recently, another by Dr. John Ashhurst, of Philadelphia, in which the whole of an enlarged third lobe was successfully removed.

Cases such as these seem to favour the hope that operative surgery will be found capable of affording more relief in exceptional instances of this kind, and of extending to the large prostate the treatment which in some degree is applicable to other deep-seated growths.

Passing to the urethra, I would again take the opportunity of adverting to the value of Otis's work in regard to the dimensions and dilatability of this canal; if he had done no more than contribute to the improvement of lithotripsy—and this cannot be questioned—we should still be largely in his debt. I cannot, however, follow him in his views relating to the performance of internal urethrotomy as a means of treating stricture of the urethra. My impression is, that this operation is losing instead of gaining ground in the opinion of many who have ample opportunities of judging fairly of its merits. That it is an operation fitted for the treatment of stricture in its early stage is a conclusion I am disposed to take exception to, on the ground that it is neither necessary nor safe as compared with other methods. I believe that, in its early stage, stricture may be successfully combated by the employment of thorough cleanliness combined with the judicious use of dilatation, as we are accustomed to practise it in this country.

If internal urethrotomy gave a greater immunity than other operations from a recurrence of stricture, or did away with the necessity for subsequent mechanical dilatation, then, perhaps, with the view of avoiding other risks to which all persons suffering from stricture are liable, I might feel more disposed to employ it; but, as such is not the case, and the risk attending its performance is not inconsiderable, I cannot concede the importance which is claimed for it by its more ardent admirers. That internal urethrotomy in some cases is a necessity—as by it we are enabled to render amenable to treatment a stricture hitherto intractable—I am willing to admit; but to recommend it as capable of effecting a permanent cure is quite another thing.

The treatment of impassable stricture of the urethra has received an important addition by the practice which Mr. Wheelhouse has introduced, the great credit of which he seems desirous rather of sharing with his surgical colleagues than of appropriating to himself, as I see he always refers to it as the "Leeds operation." Like other conditions which may be spoken of as relative to something else, rather than as fixed or defined, the impassable stricture is, I believe, gradually becoming rarer—a circumstance which is largely due to the great improvement that has taken place in the construction of instruments specially adapted to their treatment, amongst which I may mention the filiform bougies and the tunnelled instruments of Gouley, of New York. For the purpose intended, I do not think there is any proceeding equal to that which Mr. Wheelhouse has introduced; and I have no hesitation in including it amongst the improvements to which I am now referring.

Permit me, without apology, in this mechanical age, where invention after invention for the treatment of stricture comes upon us with marvellous rapidity, to claim a moment's consideration for what Mr. Savory has called the medical aspect of this question. We all know what irritation is: there is such a thing as irritation of a stricture, either by what passes

through it naturally or is introduced to correct it. Let us not disregard, as a principle of our treatment, the importance of securing for the urethra that physiological rest of which the late Mr. Hiltou wrote so well.

The question may here very properly be asked, whether, in our search for novelties as improvements in treatment, we have discovered any new diseases, the better management of which, by reason of our recent acquaintance with them, we may in all fairness leave to our descendants to determine. The admirable Bradshawe Address of Sir James Paget will, no doubt, have the effect of quickening our perceptions in this direction.

Though I cannot point to any discoveries of this kind as affecting the region which is now occupying our attention, I may note one gratifying result of extended clinical and pathological investigation: I refer to the juster assignment of symptoms to the causes producing them—symptoms which, not very long ago, were looked upon as constituting independent diseases. But, if we have not discovered any new diseases, we must remember that varying circumstances may at one time add intensity to some disorders, and considerably modify the progress of others. I have a strong impression that the times through which we are passing, characterised as they are by the production of great and continuous nerve-tension, have brought into prominence a state of brain-strain which is apt to show itself in any organ which may happen to be deranged or is overtaxed.

A recent author seemed rather to conclude that tension of this kind was most injuriously felt and shown by our American cousin, whilst the Britisher, for some reason or other, was less influenced in this manner. Whether this be so or not, I am not prepared to decide, but I am disposed to believe that purely nervous affections—affections associated, as far as we can determine, with no obvious structural alteration—are more common than they used to be. That they occasion much distress, and cause persons who suffer from them to be unduly apprehensive, will be generally admitted. Nay, further, by their mimicry of more certain diseases, they induce a condition of anxiety which is often intolerable. It is well, too, to bear in mind that the interpretation of symptoms, as also their prevention and amendment, are frequently to a large extent dependent on a recognition of the possible existence in a patient of exaggerated nerve-tension.

Before an audience of this kind it would be presumptuous on my part to indicate in detail the many improvements that have taken place in the treatment of surgical disorders of the urinary organs; further, where there have been so many contributors toward this progress it would be invidious for me to particularise.

Let me, however, in common fairness to those to whom we are much indebted, say one word in reference to the advance that has been steadily made in the construction of the means and appliances used for these purposes.

I can remember some instruments which five-and-twenty years ago, or even less, were regarded as improvements, but have now passed into obscurity or to the shelves of the museum. In no department of applied mechanics has greater perfection been obtained than by the surgical mechanician, and nowhere is this better illustrated than in the instruments employed in the treatment of urinary diseases.

It seems almost ungenerous, after referring to several proceedings of an operative kind, the doing of which entails pain and involve risk for the sake of advantages to follow, that I should allow to pass unnoticed the work of those who have removed the one and lessened the other. In chloroform and anæsthetics we have a priceless boon, without which surgery would long ago have been at a standstill, and many persons now living in comfort and enjoyment would ere this have ceased to exist. I am not old enough to remember the pre-anæsthetic age, and, therefore, am unable to draw a contrast which will be a vivid one to some of the "elder brethren" I am addressing to-day. I am reminded, however, of an incident bearing upon such a contrast, which, with your permission, I will briefly relate.

Some two years ago, a sea-captain, a patient of mine, and by no means a bad amateur doctor, on returning from sea, told me somewhat gleefully that he had successfully performed an amputation. Whilst his ship was at Ruruta, an uncivilised island in the South Pacific, a poor native got his arm entangled in a sugar-crushing machine. As there was no doctor on the island, my friend the captain was summoned,



and at once saw the necessity for removing the shattered fragments of the limb. The shrieks and struggles of the powerful aboriginal were most fearful. Recognising the necessity for taking steps to save the man's life, the captain hurried off to his ship and returned with the necessary implements, together with a quart of the newest and most potent rum. In the absence of chloroform, he induced his patient to swallow this fiery compound, wineglassful after wineglassful, until intoxication was induced, and subsequently profound alcoholic insensibility. Then the tourniquet was applied, and amputation successfully performed. Recovery rapidly took place. So pleased was the savage with the effects of anæsthesia that he subsequently offered to let my friend cut off some of his toes, provided that the process of inducing insensibility was repeated.

Next in importance to chloroform and anæsthetics are those means which have been recently promulgated for diminishing some of the greater risks contingent upon wounds and surgical operations. About antiseptics, I desire to speak in no uncertain terms. Though our views may not be unanimous, though some of us may be sceptical about the import of germs, and of sprays, and of other details, can we doubt that when the surgical historian of the nineteenth century has to recount the men as well as the measures that have favourably influenced the progress our art has made, the name of Lister will occupy a conspicuous place?

I have now done. It has not been my ambition to hold up to you a golden calf; to attempt to dress it in flowers of rhetoric, and to ask you to worship it. I have rather endeavoured to remind you of some of the directions in which surgery is now travelling, and to estimate in a measure the pace at which it is going. It is impossible to engage in a work of this kind without a full conviction that though our art is an imperfect one, it is distinctly a progressive one. In the course of your visit to this, which has been aptly referred to as the second city of the empire, you will find almost all the arts and sciences laid under contribution for the development of commercial enterprise. The activity displayed in the promotion of trade and commerce will probably suggest the inquiry whether *we* are constantly progressive, whether we are in correspondence with the times in which we live.

There need, however, be no hesitation in asserting that, whether we are regarded as preventers of disease, or as practitioners of medicine or of surgery, every one of us in his daily practice is constantly demonstrating that year by year something additional is contributed by our profession to the comfort and the life of man.

**THE WATERCRESS.**—Dr. Grellety, of Vichy, brought before the Therapeutical Society (*Bulletin*, June 30) the question whether this popular article of diet possesses any of the depurative qualities popularly attributed to it. He is of opinion that it does not, and that it is indigestible to most stomachs. It has acquired an undeserved reputation, and may be mischievous in the various forms of dyspepsia. —Dr. Noel Guéneau de Mussy, however, is of opinion that this plant is possessed of real therapeutical powers, and he has on many occasions derived advantage from it in chronic cutaneous affections. He recommends its being prepared for the table in the same way as spinach, when it is easily digested and of a pleasant taste. Or the cress may be carefully washed, cut up into small pieces, and then submitted to a press in order that its juice may be expressed. This is a little acrid, but may be corrected by syrup of bitter oranges or of horseradish.—Dr. Campardon has also found it of utility in darts affections, as Dr. C. Paul has in several cases of diabetes.

**FÆTID FEET.**—M. Vieusse, principal medical officer at the Military Hospital at Oran, states that excessive sweating of the feet, under whatever form it appears (whether as mere hypersecretion, accompanied by severe pain, or with fœtidity), can be quickly cured by frictions carefully conducted with the subnitrate of bismuth; and even in the few cases where this suppresses the abundant sweating only temporarily, it still removes the severe pain and the fœtidity which often accompany the secretion. He has never found any ill consequence follow the suppression of the sweating. —*Gaz. Hebdomadaire*, July 27.

## ON FEEDING BY THE VEINS AND ON INTRAPERITONEAL INJECTION IN THE COLLAPSE OF CHOLERA.

By BENJAMIN WARD RICHARDSON, M.D., F.R.S.

MANY years ago, in the pages of the *Medical Times and Gazette*, I treated on the subjects named in the above title, and now that cholera and its medical scientific treatment is once more under earnest consideration, I am glad to find that my suggestions are not forgotten. Some old friends who still retain my essays in their memory have written to ask me for copies of them; and some new friends—thanks to Dr. Neale's excellent "Digest"—have made the same request.

On inquiry, I find that the essays are long since out of print, and I trust, therefore, I may be excused for recasting them in very brief form for your present readers.

There is one essay, published in the *Medical Times and Gazette* for August 11, 1866, to which I would first refer, and to which I would append a few new sentences.

When that paper was undergoing construction, two theories—or perhaps it would be better to call them hypotheses—were before me.

1. The hypothesis of Snow, which is better expressed in his oration on "Continuous Molecular Changes," than even in his work on Cholera, and which supposes that cholera is due exclusively to a living cell, which, passing off in the excretions of the affected, is always swallowed—usually through water—by those who are infected, and which, increasing in the alimentary canal, is the cause of the extraction of water and of the subsequent symptoms which distinguish the disease.

2. An hypothesis which I had myself formed, and have since then called the nervous or glandular hypothesis, and which supposes that the copious exudation from the alimentary canal may be due to organic nervous paralysis induced by the action of some morbid agent or influence on the vital nervous centres, under which there is profuse discharge from glandular structures, like to that discharge which occurs from the salivary glands in some forms of paralysis, or from the skin in colliquative sweating and in sweating sickness.

The hypotheses were, however, set aside for the moment, in order that the symptoms only should be brought under consideration with reference to treatment. In this study I was very much aided by the researches I had made, and which also found their way into these columns, on the influence of extreme cold on nervous activity.

In the main I was led to the conclusion, which I should still maintain, that every fatal sign and every danger in cholera is due to the one simple act of the removal of water from the tissues, and especially from the nervous structures; to disturbance of nervous action by that removal; and to excessive reduction of heat, sensible and latent, from the body.

The treatment suggested during collapse, and based on these views, introduced the consideration of the plan of feeding by the veins, and of intra-peritoneal injection.

The lines of treatment, as they appeared and, with some additions, appear to me, were much the same as should be pursued in cases of exposure to extreme cold, where the body has been brought to several degrees below the natural standard of heat, and where, owing to the cold, the surface of the body is blue, the blood all but stagnant, and the consciousness reduced or lost. In such a case it would be folly to charge the affected person with cold iced drinks, for by such means the temperature of the body would possibly be further reduced. In such a case it would be folly to plunge the person into a hot bath, for although there might, thereupon, be a sudden reaction, there would be no source of supply of heat, but merely a heat shock or stroke, under which the remaining vital powers would be called into sudden activity, to cease directly in death—the glacial form of inaction and rigidity, which is not of necessity fatal, being transformed into the pectous change, or true rigor mortis of the nervous, vascular, and muscular fluids, from which there is no known



mode of resolution. In such a case it would, as it seemed to me, be also useless to place the affected person in the hot-air bath, because exposure to heated air, under conditions in which the capacity of the blood to circulate freely is lost, would only tend to increase the danger of coagulation of the blood in the body, and, by quickening evaporation of water from the respiratory surfaces, to intensify the exhaust of water from the body.

The first point of practice in the collapse was, then, I thought, to place the sufferer in a medium temperature, not below 50° and not above 60° Fahr., so that neither the chilling action of cold nor the exhausting action of heat should exert a destructive influence; though heat, I take it, is really the more dangerous of the two—a suspicion which the experience of cholera in tropical temperatures too fully confirms.

The next point of practice in the stage of collapse, which was suggested as the most rational, was that of feeding. Anyone who has seen many cases of cholera will recall that, notwithstanding the vomiting, the patient may, by careful attention, be made to take by the mouth a very large quantity of fluid. I have, myself, succeeded in administering a quart of fluid per hour to the person stricken with cholera; and as the complaint of thirst is a common complaint there is never much difficulty in the persuasion.

The fluid to be supplied should, I held, on all rational grounds, be one that shall fulfil two purposes. It should not make the body cooler by extracting heat, it should not produce local reaction by instant excess of heat; but it should be supplied after it has been raised from fifteen to twenty degrees above the animal temperature. I had often seen vomiting re-excited after that symptom had considerably decreased from the simple process of administering a drink too heated or too stimulating.

So much for the warmth of the fluid supplied; next, as to the nature of it.

One of the old school of London physicians, Dr. Walsham, whose long practice had made him less confident than his Fellows in the use of drugs, created some surprise during the great epidemic of 1832 by stating his opinion that he had seen more success from the free administration of chicken-broth in cholera than from any other mode of treatment. I do not doubt that in a large run of cases this simple plan of treatment would be attended with excellent results. But in 1866 I endeavoured to act on a better principle than this by inventing a food which, rendered soluble by heat, should not only supply colloidal food, but should yield up heat to the body after it was taken, during the time that it would be cooling within the body.

Taking advantage of the fact that crystallisable fat when mixed with albumen can be dissolved by the heat of water, which heat it fixes in becoming soluble, and gives up again on solidifying, I set to work to produce a food having the properties named. After numerous attempts the following proved most successful:—

Take of pure stearine two ounces by weight; of best fresh butter, two ounces; of whites and yolks of eggs, well beaten up, eight ounces; of carbonate of soda, twenty grains; of common salt, eighty grains; of distilled water, two ounces.

In preparation for food, first dissolve with heat the stearine and the butter until they are both melted, then add the carbonate of soda and common salt to the eggs, and when these salts are dissolved in the egg-fluid, mix it with the oily fluid, taking care that the latter is not of a temperature above 140° Fahr. Let the whole cool to a soft consistence, and finally, on a slab or a board, rub in the water with a broad spatula. The compound may now be placed in a wide-mouthed jar; in a little time it settles into a moderately hard mass, and is ready for use.

In administering this compound, take one ounce, place it in a large breakfast cup, and rub it up equally with a teaspoonful of glycerine or a teaspoonful of honey. Next pour upon the mass three ounces of distilled water, *actually boiling*, and incorporate well. The solid substance will now quickly and evenly dissolve, and will be at once so cool that it can be taken as a pleasant drink, like a broth in flavour. The thermometer plunged in it at once will only register from 130° to 135° Fahr. In this process the heat of the boiling water has been mainly (allowance must be made for conduction and radiation) expended in rendering fluid the solid matter. We may estimate safely, that in addition to the

sensible heat, 44° have been rendered latent for every ounce fluid at least, which heat will be gradually yielded up within the body.

Contrasted with the supply of a pint of ordinary water at 40°, I estimated that a pint of this fluid would effect a difference equal in value to 204° Fahr.

#### FEEDING BY THE VEINS.

When feeding by the mouth is impossible, the next indication in the stage of collapse is to feed by the veins. In using this term I wish to make a difference between mere injection of the veins with watery fluid and feeding by the veins. My proposition was, and is, *to feed*—to feed in the same way, as nearly as can be imitated, as the venous system is fed in health from the alimentary canal through the thoracic duct—slowly and steadily, so as to supply food as well as water.

Up to this time we have been content to inject warm saline solutions into the veins. The results have been often astounding, almost always delusive. In some instances it has seemed as if the injection has restored the dead to life, but the collapse has only too surely recurred. In a case which I attended with the late Mr. Ansell and Dr. (afterwards Sir) John Cormack, in 1854, we injected into the veins of a collapsed woman two pints of warm saline solution four successive times, and each time with the effect of restoring her from apparent death to consciousness and power of movement, thus evidently extending her life over thirty hours, but only for her to die at last actually ex-sanguine.

The reason why certain immediate but not lasting benefits have followed these injections is, that they have been injected after the fluids used have been heated up to, or above, blood-heat; the heat thus supplied has been the underlying basis of the transient success. Any experimentalist can prove this by injecting the solutions into the systems of animals killed by chloroform and immediately exposed to intense cold. He will find himself able to reproduce general muscular movements with the solutions named, equally well with each, if they are heated to the same degree, *i.e.*, from 106° to 115° Fahr. He will find them all equally negative if they are not thus raised in temperature. Hence, we must consider the question of transfusion in a new light, or success will continue to be temporary, and nothing more.

(To be continued.)

**HEALTH OF THE CITY OF GLASGOW.**—At the usual fortnightly meeting of the Glasgow Town Council it was stated that the death-rate last week had fallen to 22, and that the city is in a much more satisfactory condition than it has been for some time. The Health Committee had placed themselves in communication with the harbour authorities both in Glasgow and Greenock with a view to the prevention of cholera, and the shipping entering the river was being carefully watched.

**REPARATION OF FRACTURES IN THE SUBJECTS OF DIABETES.**—Prof. Verneuil having related to the Académie de Médecine (*Bulletin*, July 24) some cases of fracture with defective union in diabetes (in continuation of former communications on the relations which exist between traumatic injuries and general diseases), concludes as follows:—1. The delay or absence of consolidation in these three cases of fracture would seem to be referable to the dyscrasia recognised to exist in diabetes. 2. This delay or absence of consolidation necessarily implies a delay or suppression of reparatory power, a special form of nutrition. 3. Whence we may conclude that diabetes, when it impedes or prevents the formation of callus, leads to, if it even does not directly cause, the diminution or suppression of nutrition.

**QUASSINE.**—M. Vigier states (*Gazette Hebdomadaire*, July 27) that quassine is a very reliable medicine, and that the amorphous quassia is now prepared in a very pure manner, and possesses all the properties of crystallised quassine, while it is much cheaper and more easily administered. The crystallised quassine acts so energetically that even a few milligrammes cause very disagreeable sensations in the throat. The amorphous form should be given in pills, two grammes being combined with nine grammes of an excipient and formed into 100 pills, of which two or three are to be taken daily.



## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### THE MIDDLESEX HOSPITAL.

#### CASES OF EXTERNAL MEDIAN URETHROTOMY UNDER THE CARE OF MR. H. MORRIS.

(Concluded from page 92.)

*Case 3.—Enlarged and Engorged Prostate—Retention of Urine—Severe Hæmorrhage into Bladder—Median Urethrotomy—Recovery.*

[From notes by the Dresser, E. H. FREELAND.]

WILLIAM L., aged sixty-six, bootmaker, admitted into Broderip ward, January 1, 1883.

*History.*—Patient states that about twelve months ago he first experienced some difficulty in passing water. He had attended a funeral and had gone a long way to it, and on returning he attempted to micturate, after holding his urine with an effort for some time. He could not pass water, however, though he strained a long while and had an ardent desire to do so. A catheter had to be used, and blood was drawn off with the urine. After this he recovered the power to micturate, but his urine continued bloody for a day or two. Since that time, he says, he has had a more frequent desire to pass water than he used to have, and this has been greatly aggravated during the last three months. The stream of urine has been gradually getting smaller. Three months ago he had an attack of retention similar to the first, and again blood was passed in his urine. The frequency of micturition has been increasing up to the present time. He has been under treatment at intervals as an out-patient during the last twelve months, and catheters have been passed at various times. A few days ago, whilst at a friend's house, he experienced a sudden desire to pass water, which, however, he was quite unable to do. He again applied for relief at the hospital, and has continued to come to have a catheter passed daily since then.

*State on Admission.*—Retention of three hours' duration. Hypogastric dulness and pain extending to umbilicus. Several unsuccessful attempts had been made to pass a catheter, giving rise to considerable hæmorrhage. After a warm bath and a full dose of opium, he succeeded in passing some highly blood-charged urine.

January 2.—A No. 5 catheter was passed about 3 p.m., and a quantity of dark brown ammoniacal urine drawn off. The catheter was tied in until 12 p.m., when, being clogged, it was removed, and a No. 12 gum-elastic prostatic catheter passed with ease. A quantity of bloody, offensively-smelling urine was again evacuated. It was clear that there was a very large amount of blood in his bladder, and that bleeding was still going on. Ext. ergotæ liq. ʒj. 4tis horis.

3rd.—About 4.30 p.m. a No. 12 gum-elastic catheter was passed, and about fifteen ounces of thick, blood-stained urine drawn off. A digital examination per rectum revealed an enlarged prostate, and the question arose as to whether the bleeding was due to a congested prostate or to a growth in the bladder. It seemed most likely to come from the enlarged and irritated prostate. Urine: Specific gravity 1020; acid; bloody, thick, dark red; copious deposit; microscopical examination shows pus and blood. To-night a flexible india-rubber catheter was passed, and not left in the bladder. Feels easier; sleeps and takes his food well.

4th.—At 12 p.m. a No. 8 silver catheter was passed, and about a pint of almost black urine drawn off; it was very offensive, and more viscid than yesterday. At midnight a catheter was again passed, and a quantity of thick urine drawn off. The patient was becoming exhausted, and it was clear that if the bleeding and spasmodic pain continued he would soon sink; moreover, the use of the catheter seemed to aggravate the bleeding.

5th.—At 2 p.m. patient was taken to the theatre and placed under the influence of an anæsthetic. After putting him in the lithotomy position, a grooved staff was passed down the urethra, and an incision was then made on this through the median line of the perineum, about one inch in length and three-quarters of an inch in front of the anus. The staff was then removed, but no urine flowed from the wound. By a digital examination it was impossible

to reach the interior of the bladder, because of the large size of the prostate. A gum-elastic catheter was then passed through the wound into the bladder, and a quantity of thick, dark urine drawn off. A metal sound was next passed, but nothing could be detected. A No. 12 gum-elastic catheter was tied in the bladder, and a tube attached to it carried off the urine to a vessel beneath the bed. Supp. morphia gr. ss. statim; evening temperature 102° 6'.

6th.—3 a.m.: Temperature 99° 2'; pulse 89. Urine: Sixty ounces run off; still bloody, but a little lighter in colour, and gives less deposit; contains pus and bacilli as well as blood. Slept well last night; feels comfortable; no pain.

10th.—Tube removed from the bladder yesterday. Did not sleep much last night. Complains of pain at the root of his penis on trying to pass his urine. Seems better. Pulse 84. His bladder was relieved last night at 10.30, and again this morning, by a catheter introduced through the wound; this gave him a good deal of pain for a few minutes. Temperature 99° 6'.

12th.—Urine drawn off at 10 a.m.; less smoky; still offensive. Catheter tied in bladder again, but he did not retain it long.

17th.—Passes urine of his own accord through his perineum, but with some pain. Catheter (passed through the wound) still used at night.

22nd.—Passes water more easily through his perineum; no pain.

24th.—Now has control over his water, which he passes through the wound. Has complete control over his bladder. Expresses himself as much better than before the operation. Urine is not offensive.

25th.—Catheter left off at night for first time yesterday. Passes water easily; looks and feels well; still passes water through perineum.

26th.—Last night he passed water through the natural channel, very little coming through incision in perineum; feels much better. Catheter again passed through the wound last night. Urine clear—straw-coloured.

31st.—Catheter, which hitherto had been passed daily, has not been passed since 27th. Has no pain, and passes water freely through perineum. Is gaining flesh.

Discharged, looking a very different man to when he entered the hospital. Urine perfectly normal. Has gained strength, and expresses himself as being in a much better state than before the operation. For several weeks he came once a week to hospital to have a catheter passed through the opening in his perineum, as it was thought desirable to keep it pervious. In March, as he felt his bladder so well, he desired that the wound should be allowed to close, and he undertook to pass a full-sized catheter for himself, per urethram, once or twice a week. Since April the perineal wound has been closed, and he remains quite well and comfortable.

*Remarks.*—When admitted, it was stated that he had stricture of the urethra, and no catheter could be passed on account of the spasm; there had been much loss of blood per urethram. I found, however, that a full-sized catheter could be easily introduced; but as four days passed, and I had myself to catheterise him twice daily, and the hæmorrhage was still going on, I decided to establish a shorter and easier route to the bladder. The operation of median urethrotomy would, I considered, by making catheterism simple and less irritating to the bladder and prostate, tend to stop the bleeding if due to engorgement of that organ; and besides, would enable me to explore the bladder with my finger, and satisfy any doubts as to whether a foreign body or a tumour was the source of bleeding. The first point was gained, and the result was all that could be desired; but the digital exploration of the bladder was an impossibility. Yet the man was tall and spare, and had a well-shaped pelvis, of only average depth. It was the very considerable enlargement of the prostate which prevented my finger-tip getting to the neck of the bladder; but the favourable termination of the case cleared away all doubts as to the simple character of the source of the hæmorrhage.

#### *Case 4.—Calculus in a Diverticulum of the Bladder—Cystitis—Median External Urethrotomy—Convalescence.*

William B., aged forty-three, an engraver, was admitted on May 7, 1883, by the request of a medical friend.

*History.*—Patient stated that he had had a gradually



increasing weakness of the bladder since January, and that on going to bed one night in February he was unable to pass his water at all, but during the night he voided it little by little. He continued to micturate at frequent intervals, but a month later he had complete retention for twelve hours, for which he went into St. Thomas's Hospital, where he was sounded very carefully for stone, and treated for cystitis. After leaving the hospital he voided some small gravel-like deposits—some of which were hard and some soft—in his urine. He returned to St. Thomas's, and was again sounded. He, however, had been getting worse, and his desire to pass water had increased as the urine became thicker.

*On Admission.*—I found the patient crippled and deformed, his left thigh having been amputated through the junction of the middle and upper thirds, his pelvis much tilted, and his right thigh ankylosed in a partially flexed and strongly adducted position from old hip-joint disease. He had a constant desire to pass urine, with difficulty in doing so; and pain in the hypogastrium. He micturated, on an average, every hour and a half, passing each time about three ounces of very thick (about half deposit on standing), offensive urine, of specific gravity 1020, of alkaline reaction, and containing pus and ammoniaco-magnesian phosphates and large quantities of bacteria.

Mr. Morris suspected stone, and wished to sound him, but the patient objected, as he had been quite recently sounded by two distinguished surgeons, and nothing was found. Examined per rectum, the prostate was found enlarged, but nothing could be felt in the bladder. Daily irrigation of the bladder through a full-sized flexible rubber catheter, rest in bed, and the usual dietetic and medicinal treatment, were ordered.

For several days he improved; the urine became acid, the frequency of micturition and the amount of muco-pus diminished, but he still complained of a pain in passing water, and spasm in the urethra.

These symptoms increasing, he was persuaded to have median urethrotomy performed. The membranous urethra was accordingly divided on a staff on June 12, when the bladder was washed out; but it was found impossible, owing to the enlarged prostate, and the great depth of the perineum, to reach the bladder with the finger. There was some smart hæmorrhage from the wound, which recurred in the evening after the operation, but which was easily controlled by a little well-adjusted pressure applied around the tube which had been left in the bladder. He was greatly relieved by the operation, and slept several hours right off during the nights.

On June 18 the catheter was removed, and its end found coated with phosphates. During the night and next morning, however, he passed some of his urine through the penis, in consequence of which a catheter was re-introduced. In doing this Mr. Morris felt the walls of the contracted bladder; but on slightly shifting the catheter it passed on easily for some distance, and struck what seemed like a stone; but as the catheter was not a metal one, no characteristic sound was elicited.

On June 20 an anæsthetic was again given, and a straight sound introduced through the wound into the bladder, the walls of which were contracted; but at one spot on the posterior aspect the sound could be made to slip onwards a long distance, and at once a distinct proof of a stone was gained. An effort was made to extract the stone with a pair of long slender forceps, so as to obviate a further incision of the urethra, but a firm grip could not be got by them. It therefore became necessary to enlarge the deep part of the wound. With a little coaxing Mr. Morris could now pass his finger well into the bladder and touch the stone, which had been drawn to the base of the bladder. With a full-sized straight lithotomy-forceps the stone was then extracted. It proved to be a mulberry calculus with several very pointed offshoots, and weighed sixty-six grains. The man at once had almost complete relief.

He has convalesced very slowly, but is now able to sit up and get about the ward. No catheterism has been employed since the operation, but the wound, which is still open, has been daily irrigated. Nearly all the urine is still discharged through the wound, and it is well that it keeps open, as, after such a very severe and protracted cystitis, his bladder for the time being is all the better for prolonged rest.

*Remarks.*—It needed some little scheming to pass a rigid

catheter along a urethra so much disturbed in its curves by the fixed adduction of the thigh and the tilting of the pelvis. For the same reason there was much difficulty in fully manipulating a sound in his bladder. This, together with the fact that the calculus was lodged in a recess of the bladder, rendered the detection of the stone impossible until the sound was passed through the perineal wound. Knowing the result of previous soundings, and the very highly irritable and contracted state of the bladder, I did not do more than introduce a tube at the time of opening his urethra; but the first time I passed a catheter through the wound its course was almost direct to the pouch in which the stone lay. Thus the operation made it possible to detect the cause (here obscure) of the cystitis, and to remove it. Though there is reason to think the patient is the subject of disease of the kidneys, which may prevent his restoration to perfect health, there can be no doubt as to the benefit he has derived from "external median urethrotomy."

N.B.—Attention may here be drawn to the great advantage in this and such-like cases of the use of German moss-peat for pillows, upon which the patient's buttocks rest whilst the urine drains into the peat. The peat has great power of fixing ammonia, and absorbs about eight times its weight of water. It has for many months been largely used in the wards of the Middlesex Hospital.

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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

## Medical Times and Gazette.

SATURDAY, AUGUST 4, 1883.

### THE PRESENT ASPECT AND FUTURE PROSPECTS OF MEDICINE.

IN medicine, as in other branches of science, using the word in its widest sense, all progress, in order to be sure and lasting, must be built on a firm basis; none other can withstand the searching inquiry of experience. All real advance, then, in medicine is, we may take it, mainly the result of a correct appreciation of the labours of our predecessors and a due apportionment of their respective merits. An annual meeting naturally suggests a review of what has been accomplished not only during the preceding year, but also of all the work that has been done up to that date; it affords a convenient opportunity for abstracting from that work all that is new, and inviting special attention to it in the future; and lastly, it forms a fitting occasion for looking forward and



anticipating the progress that may not unreasonably be hoped for.

At the annual meeting of the British Medical Association now being held in Liverpool, the new President chose for his subject the Present Aspect and Future Prosperity of Medicine. It is a subject which affords no little ground for satisfaction. Our standard of medical education is higher than it has ever been before; many of the great problems are being vigorously attacked; the uncertainty of our knowledge on many important points is deeply felt, and is stirring up men to great efforts to remedy it. One great cause of all this has been, as Dr. Waters justly observes, the introduction of instruments of precision into our practice—the stethoscope, microscope, thermometer, ophthalmoscope, laryngoscope, and sphygmograph having furnished us with means by which the senses may be placed in immediate relation with the actual phenomena of disease, phenomena which may be of the most simple character, and yet so indicative of the general morbid state as to be intelligible almost to anyone. The stethoscope has now become such a *sine quâ non* to a medical man that it is hard to realise that fifty years ago it had hardly found its way into this country, even to our metropolitan schools; for, like most great discoveries and improvements, it was treated with much contempt by those who considered that they had always got on very well without it. The thermometer has won for itself, with perhaps less opposition, a position of almost equal importance. It is doubtful whether the ophthalmoscope, laryngoscope, or sphygmograph will ever come into very general use: their employment necessitates the cordial co-operation of the patient, and special training on the part of the practitioner; and even those who are most enthusiastic as to their value would not wish to class them as equal in importance to the stethoscope and thermometer. Turning to the subject of treatment, Dr. Waters reminded his audience that, after all, these improved methods of diagnosis owed their chief value to the more scientific and more rational lines of treatment to which they more or less directly led the way; for although much of our treatment is still purely empirical, yet there is decidedly less empiricism now than there was fifty years ago; and, indeed, it requires but little consideration to see that this must of necessity be the case. Rational treatment can proceed only from clear views of the nature of the disease to be treated, and nothing has done so much to remodel and reform the whole system of treatment as Laennec's grand work, the introduction of the stethoscope. In our own day, what with the rapid means of communication between all parts of the world, and the readiness with which knowledge is diffused by the medium of societies and medical journals, it is not to be expected that any one man will be able to give to the world anything that can equal in utility the stethoscope; but the germ theory of disease has already, at the hands of Mr. Lister, been productive of benefit to thousands, and probably even more so on the Continent than in our own country. The researches of M. Pasteur, in a kindred subject, seem likely to bid fair to abolish some of the most fatal disorders of the lower animals, and will thus indirectly, and, it is to be hoped, directly also at no very distant date, benefit the human race.

Looking on for half a century, Dr. Waters foretold that his successor in the presidential chair would have many triumphs to record. Improved methods of research and new instruments of diagnosis there will doubtless be. The work of collective investigation, so recently inaugurated, will by that time, if ever, have borne fruit; and we shall know something more of the beginnings of real disease, and be able to distinguish with greater certainty than at present between functional disturbance and organic disease. Many missing links between physiology and pathology will then have

been supplied; and we shall know the exact relation of micro-organisms to disease, whether cause or effect—a point on which we certainly lack conclusive evidence at present. And whilst looking forward to the attainment of these results (and it seems impossible to doubt but that some day they will be reached) we are naturally tempted to peer much further into futurity, and try to picture to ourselves the time when many of our most common diseases shall have become unknown. Syphilis, for instance, is a disease that should disappear altogether—provided, that is, that Governments do not *always* keep open minds on the subject; typhoid fever and diphtheria, and perhaps all the zymotic diseases, will then have been rendered impossible occurrences; and gout, cirrhosis of the liver, and Bright's diseases will only be known by book-learning. If the speculations of our own time prove well founded, tubercle, and perhaps cancer, sarcoma, *et id genus omne*, will be as unheard of then, as the sweating sickness of the time of Caius is now. When that happy age arrives, it is probable that people will have given up eating and drinking too much, and, on the other hand, everyone will have enough. When that stage has been reached there will be nothing for the medical man to do but deal with the effects of accident or unexpected changes of climate; and there will then hardly be the same urgent necessity for a representative in the Upper House, which at present appears to be so acutely felt in some quarters.

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#### THE VALUE OF ARSENIC IN CERTAIN FORMS OF ANÆMIA.

A VERY interesting communication, "On the Arsenical Treatment of Leukæmia, Pseudo-Leukæmia, and Progressive Pernicious Anæmia, with some Remarks on the Mutual Relation of these Diseases," is given by Dr. F. W. Warfvinge, of Stockholm, in a recent number of the *Nordiskt Medicinskt Arkiv*. It appears that in the space of little more than four years since the Hospital of Sabbatsberg, in Stockholm, has been open, there have been under treatment in that institution no less than eleven cases of progressive pernicious anæmia, and the same number of pseudo-leukæmia, but only two of leukæmia, thus showing that the two former diseases are relatively common in Stockholm, and that they are much more common than leukæmia. The two cases of leukæmia, seven cases of pseudo-leukæmia, and seven of progressive pernicious anæmia were treated with arsenic by Dr. Warfvinge with the following results. One of the cases of leukæmia was of a slightly advanced lymphatic form, and the patient was able to leave the hospital after an arsenical treatment of three months' duration (internally and by injection). He presented all the appearances of perfect cure: the lymphatic glands had returned to their normal dimensions, and the number of white globules was reduced to the ordinary proportion. The other case was of a very advanced splenic form, with an enormous spleen, and the number of white globules was equal to the red ones. The spleen was considerably reduced in size under an arsenical treatment of twelve weeks' duration, the number of white globules was reduced to the proportion of one to ten, and the general health improved at the same time. But the cure was slow, and was only a little advanced when the patient, a feeble girl, sixteen years old, wished to return home. A few injections of Fowler's solution, made in the spleen towards the end of the treatment, were perfectly innocuous.

In the cases of pseudo-leukæmia, the arsenical treatment, which lasted only a few days, was nearly ineffectual in two instances, one of the patients not wishing to remain in the



hospital, and the diagnosis in the other being made only a few days before death. In the remaining five cases the result was more favourable. In one of them, in which iodide of iron had been ineffectually administered, and the cachexia and marasmus had reached an extreme degree, the arsenical treatment for five weeks produced a remarkable progressive improvement. At the end of this time the patient presented the appearance of excellent health, had a voracious appetite, very good muscular strength, the spleen was normal, and there were only insignificant remains of hypertrophy of the glands, and, besides, the number of red corpuscles had increased. Unfortunately, six months after the patient had gone home from the hospital into the country, where he lived, he had a relapse which ended in death. In another case the arsenic also produced a remarkable effect on the hypertrophy of the glands. This was particularly the case after arsenical injections into the glandular parenchyma, the effect of which was very striking, the diminution of the swellings being rapid and considerable, but confined to the glands which were injected. The patient, who suffered all the time from asthma, had occasionally severe attacks of suffocation, and died in one of them, caused, as was shown at the autopsy, by the pressure of the mediastinal glands, which were much swollen and had not undergone reduction like those which were reached by the injections. In two other less severe cases of lymphatic pseudo-leukæmia the beneficial effect of the arsenic was unquestionable; the use of this remedy for from three to five months produced a slow diminution of the swellings, and such a decided amelioration of the general health that the patients on their discharge from the hospital appeared perfectly well. In the fifth case, a lymphatic pseudo-leukæmia with marked hypertrophy of the glands of the neck and mediastinum together with general prostration, the internal use of arsenic reduced the glandular swellings and brought about a satisfactory general condition, which has lasted for a year.

Of the cases of pernicious progressive anæmia, one rapidly became worse for a week during which iron was administered: the anæmia and cachexia had decidedly increased, and the number of red corpuscles had diminished; but after the employment of arsenic there was uninterrupted improvement, which was so well marked that at the end of two months the patient, being regarded as cured, ceased to take the arsenic, but on the next day after its discontinuance he was attacked with violent acute nephritis terminating in death. The autopsy proved the total absence of the ordinary signs of pernicious anæmia. In another case the patient came to the hospital almost in a dying state, and died in six days in spite of arsenical treatment; but it appeared that at an early period of the affection there had been a decided improvement on two occasions under the use of small doses of arsenic. In the third case iron had been unsuccessfully employed together with other tonics, but on the administration of arsenic there was a continuous improvement. The red globules in three weeks had been increased threefold, and at the end of four months they were eight times more numerous; but two months afterwards there was a relapse, which again yielded to a fresh employment of arsenic, and health was restored, at least for nearly a year, during which Dr. Warfvinge occasionally saw the patient. In the fourth case the symptoms grew worse under the use of iron, but when the arsenical treatment was adopted there was a gradual improvement: the health returned, and the number of red corpuscles was quintupled. But there was a relapse at the end of about seven months, and arsenic was again employed: health was again restored, and the red corpuscles were increased in number; a persistent diarrhœa, however, compelled the discontinuance of the arsenic, and

the patient died from weakness. In the fifth case the malady was increased under the use of iron, and the patient was at the worst when the arsenical treatment was begun, but from that time there was marked improvement: the patient was able to leave his bed at the end of five weeks, and the blood was two and a half times richer; when he left the hospital the number of red corpuscles was about four times more than at the beginning of the treatment. In the sixth case, which was less advanced, iron in large doses produced no effect, but after only eight days of treatment by arsenic the patient began to improve, and presented the appearance of health at the end of five weeks, the number of corpuscles being tripled. In the seventh case the result of the arsenical treatment was equally favourable: the health of the patient was remarkably improved after two months and a half of treatment, and the number of red corpuscles was largely augmented. It appears, however, that the patient died abroad, probably from a relapse. Dr. Warfvinge adds that two cases of pernicious anæmia are still under his treatment, and are slowly but uninterruptedly improving.

Dr. Warfvinge remarks that the fact of these three maladies—pernicious anæmia, leukæmia, and pseudo-leukæmia—being equally benefited by the use of arsenic seems to show a certain degree of relationship between them, and in proof of this position he passes in review the principal symptoms presented and the anatomical and pathological changes, particularly insisting on the change in the blood. Although the three diseases exhibit certain points of difference, there is yet a character common to them all, namely, the diminution of the number of red corpuscles, with a modification of their form and size, the diminution depending less on the decrease in the formation of new corpuscles than on the abnormal destruction of the existing corpuscles. Dr. Warfvinge regards the alteration in the blood as the primary cause of these maladies, and he considers as secondary affections, caused by dyscrasic irritation, not only the changes in the spinal cord, but also the hypertrophy of the lymphatic glands and the spleen, and the lymphatic neoplasms in various situations. The alterations observed in the spinal cord, well known in leukæmia, he has also found in all the cases of pseudo-leukæmia and pernicious anæmia which have been examined after death, and he regards these alterations as common to the three affections, in all of which, moreover, there are anæmia with cachexia, a disposition to hæmorrhages, especially of the retina, œdema in various parts and transudations, and fatty degeneration of different organs, especially the heart. The dose of arsenic employed by Dr. Warfvinge was four drops of Fowler's solution given two or three times a day, and four drops of the same daily when used as an injection.

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#### SAVE US FROM OUR FRIENDS !

WE cannot altogether agree with the letter of Dr. Alfred Carpenter to the *Times*, and that portion of it advocating the election of medical men to the peerage appears to us regrettable. Dr. Carpenter's argument is that the members of the medical profession, and especially, it would appear, those who are connected with the Army, are insufficiently rewarded for their services; that they are deprived of that incentive to exertion which a prospective peerage offers to an ambitious mind; that the interests of the nation suffer from the want of some influential representative of the medical profession in Parliament; that "the heroic deeds which are every day unostentatiously performed by every practising member of the medical profession" are partly wasted because there is not a single medical peer to "publish them to the world"; and that the medical profession will not be



treated justly until it obtains some political power, and until it has a representative in Parliament to make its claims heard. It is but just to the profession to say that Dr. Carpenter speaks, and claims to speak, for himself only; and we trust and believe that in making this request he does not represent the views of any considerable section of the profession. The members of the medical profession have known how to do their duty in times past, and have done it without any such artificial incentive as this that Dr. Carpenter would provide for them; and we have no reason to believe, nor will we allow, that the medical men of the present day are one whit behind their predecessors and their forefathers in single-hearted and unselfish devotion to duty. It is possible that the medical profession is deprived of the services of some men to whom a peerage is an object of ambition; but it is doubtful whether such a deprivation is any real loss. There is no thoroughfare to a peerage through any other tract of science, and yet science progresses, and progresses with ever-accelerating velocity. It is difficult to believe that anyone who is not inspired and impelled by the love of science for its own sake will be induced to follow it with any share of that enthusiasm which alone can bring success by the distant prospect of a peerage. The importance of an adequate representation of the medical profession in Parliament no one can gainsay. It is right that every section of the population should be represented in proportion to its importance to the nation and to its numbers, and it is unquestionable that medical men share with some other classes the disadvantage of a very great lack of representation; but this disadvantage cannot be compensated by the presence of one or two, or half-a-dozen or more, medical peers in the Upper House of Parliament. If it is necessary, in order to obtain justice to the medical profession (whatever that may mean), that its interests should be specially represented in Parliament, it is not by any representative in the House of Peers that such an advantage is to be gained. If, as Dr. Carpenter says, the just claims of the profession will not obtain recognition until it is able to wield some political power, then let us strive with might and main to return members pledged to our interests, and to the interests of medical science as affecting the nation, to the House of Commons. Such representatives would at least command attention. Their views on medical subjects would compel consideration from any Government. But so much cannot be said of any representatives that we might obtain in the House of Lords, and for this reason: that every vote in the House of Commons is of importance, but the loss of a vote in the Upper House has no terror for the Government. However persistently the medical peers were to "publish to the world the heroic deeds which are every day unostentatiously performed by every practising member of the medical profession," it is very doubtful whether such a proceeding would enhance either their own popularity or that of the profession to which they belonged. No; save us from our friends, and especially from those who ask things in our name! When a man has faithfully endeavoured to do his duty and to serve his fellow-men, the public recognition of his efforts is indeed most grateful to him. The bestowal of a symbol of this recognition by the Government which represents his countrymen is an honour of which, when it is offered freely and spontaneously, he may justly be proud, or, if he considers it inadequate, he may courteously and with dignity decline it, as Dr. Banks has very properly done; but when a distinction of this kind is extracted by solicitation, the gift loses all its grace, and the title all its honour. Medical men who take on themselves the ungracious task of asking for such things must expect little gratitude at the hands of their professional brethren.

### MEDICAL FAMILY REGISTER.

MR. FRANCIS GALTON is well known as an earnest and able student of and inquirer into the subject of heredity. He has published works, that have made their mark, on "Hereditary Genius," on the "Antecedents of Scientific Men," and one entitled "Inquiries into Human Faculty." In the last-named work, and in an article published in the *Fortnightly Review* last year, he has dwelt emphatically on the great importance of Medical Family Registers. He takes a deep interest in everything "that can throw light on the physiological causes of the rise and decay of families, and, consequently, on that of races"; and he is convinced that, before we can gain any real insight into the causes "upon which the future evolution of humanity depends," we must possess "a large number of complete medical, or, rather, anthropological family registers, regarding men simply as live stock, and showing the whole produce of the unions of different varieties of them." And he has the courage of his opinions. In the current number of the *Fortnightly Review* he announces his attention of offering substantial prizes—£500 in all,—open to competition among all members of the medical profession, for complete medical histories of their own families, and the families of their wives, and of their children. He has drafted a scheme for these registers, which has been approved by Mr. Simon, and some other "eminent medical men of varied attainments," among whom he names Dr. Beddoe, Dr. Matthews Duncan, Sir William Gull, Dr. Ogle of the Registrar-General's Department, and a few other well-known men. And the examination of the registers sent in, and the awarding of the prizes, will cost him, he calculates, an additional £500. All medical men will admit that medical family records would be of great value as aids and guides to them as practitioners and family advisers; but will it ever be possible to obtain them? Mr. Galton fully recognises the difficulties in the way. Men and women generally, he admits, will not yet, foolish and wrong as it may be, record their family secrets of disease. But he thinks medical men "may be tempted by an appeal to their scientific zeal, backed by the offer of considerable prizes, to write about themselves at their best, and in great multitudes." Hence his scheme. His register is to embrace the medical history of four generations—i.e., it is to begin with the grandparents of the compiler and of his wife, to pass down through all their uncles and aunts, and brothers and sisters, include themselves, and end with their children. Information is to be given on, generally speaking, the following characteristics:—Race; Conditions of Life; Form and Feature; Health; Vigour; Sensation; Artistic Capacities; Intellect and Character, and an appendix is to be added, giving an analysis of the medical history and other characteristics of the family, concerning—(1) those on the Compiler's side; (2) those on the side of his Wife; and (3) concerning their Children. Mr. Galton draws a charming picture of the interest that will be taken in the compilation of such registers—the pleasant correspondence with half-forgotten friends, the new and agreeable bond thus created between relations living at a distance, and so on,—all of which does credit to his powers of imagination. The whole scheme is the scheme of an enthusiast; but what does not the world owe to enthusiasts? Without them, civilisation, knowledge, and even material prosperity would make very little, if any, progress. It appears to us that Mr. Galton's scheme is too wide for a beginning: we greatly doubt whether many medical men, or many men of any class in large numbers, could compile anything like a full medical history of their grandparents, their uncles, and their aunts, let them try ever so honestly to do so; we



fear he asks for information on too many points—i.e., that the scheme is too minute in detail; and we confess that we greatly doubt his invitation meeting with any large response. We, however, heartily wish him a success so large and complete as to really reward him for his expenditure and labours.

## THE WEEK.

### TOPICS OF THE DAY.

THE chances for and against the introduction into this country of cholera from Egypt constitute the most engrossing topic of the day, and, as usual, the alarmists are ready to make capital out of every sudden death reported. The Press can do no good, and may certainly do much harm, by stating that a death from this disease has occurred at Llanfyllin, Montgomeryshire, after an illness of twenty-four hours only, and another so near as the London Docks. A still more sudden case of reputed cholera is stated to have occurred a few days ago in Kensington, the sufferer being an intemperate stableman, who succumbed only two hours after being attacked. These cases have been communicated to the Local Government Board authorities, but these latter, very naturally, do not believe that one or two isolated attacks imply an outbreak of Asiatic cholera in England, and feel convinced that they have no connexion with the prevalence of the epidemic in the East. At this time of year the mortality from diarrhoea and simple or summer cholera always rises, occasionally reaching a very high figure, and includes sometimes adults, as well as children. It would, however, be absurd to expect the daily press to refuse insertion to sensational paragraphs respecting "reported" cases of cholera in London, and like announcements.

A deputation, chiefly composed of medical men (most of them members of the British Medical Association), but accompanied by several members of Parliament, waited last week upon Mr. Chamberlain, at the Board of Trade, to ask him to appoint a Departmental Committee to consider the unsatisfactory state of the medical and sanitary administration of the Atlantic steamships, and the position of ship surgeons. They commented very strongly on the want of precaution on board emigrant vessels crossing the Atlantic, the result of which was the sacrifice annually of a large number of human lives. They suggested that, in order to secure practitioners more qualified to deal with the cases which came before them, the shipowners should be called upon to increase the remuneration of the medical men, who were to be appointed by the Board of Trade, and that the American Government should be requested to contribute a small sum for the vaccination which they required to be performed on board the vessels. Mr. Chamberlain, in reply, admitted that the questions of qualification and *status* might fairly be considered. As to the suggestion that the medical officers should be under the control of the Board of Trade, he could not entertain such a proposal for a moment. As regarded the other points, he might say that it was his intention to introduce into Parliament during next session a Bill for the amendment of the Merchant Shipping Act, and in that Bill it was intended to deal with the question of security, and to establish a Shipping Council, which might be a court of appeal between the Board of Trade and the shipowners.

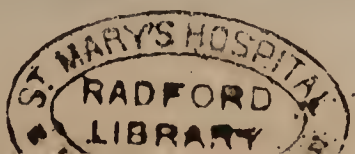
Once more the state of the water in the Regent's Canal has caused serious complaints to be made to the local authorities of Marylebone. With a view of ascertaining how far such complaints were justified, Dr. A. Wynter Blyth, the Medical Officer of Health for that parish, has made an inspection of that portion of the canal that runs through Marylebone parish, and has reported thereon. On

July 2 and 4, in company with the sanitary inspector, he made a careful examination from a row-boat, and found that, amongst other things, the stream contained the dead bodies of animals, that had been allowed to float about for some time. About ten yards east of Primrose Hill-bridge there was a very offensive deposit of black mud, three feet in depth, of which samples were taken. He had examined the water chemically, and found it five or six times more impure than the river Thames. The mud is offensive to the smell, and evolves the usual gases accompanying decomposition. It is composed of animal and vegetable *débris*, and earthy matter. Dr. Blyth considers the mud, the putrid animals, and the accumulations of excretions, are all nuisances in the legal sense of the term, and injurious, or likely to be injurious, to the public health. He considers that the whole of the mud should be removed by dredging, and that nothing short of a daily scavenging will be satisfactory.

The attention of the French Academy of Sciences has recently been occupied by an important subject—namely, the best method of completely destroying the carcasses of animals which have died of contagious diseases,—M. Pasteur having, as is well known, shown that burying the bodies does not kill the germs of the disease, and they may be brought to the surface again by worms. It had been proposed to burn the carcasses; but the new process of M. Girard is even simpler and more economical. It consists in dissolving the carcasses in cold concentrated sulphuric acid, and utilising the resulting liquid for the production of superphosphate of lime. At the end of eighty hours the entire carcass is dissolved in the acid, and only a coloured liquid remains. The destruction of germs is thus complete, as has been proved by inoculation with the insoluble residue of the liquid. According to recent experiments made at St. Gobain, 321 kilogrammes of sulphuric acid (at 60° proof) dissolved in ten days nine sheep weighing 204 kilogrammes. From the 525 kilogrammes of liquid remaining, M. Girard extracted 25 kilogrammes of grease, and 500 kilogrammes of acid, which, mixed with 440 kilogrammes of coprolites from Ardennes, produced 940 kilogrammes of superphosphate of lime, containing 30 per cent. of nitrogen. In addition there was a quantity of soluble acid and insoluble phosphoric acid obtained.

An important decision was recently given by Mr. Barstow at the Clerkenwell Police-court, in the case of a summons taken out by the St. Pancras Vestry against an owner of property in that parish. The summons was obtained against the defendant on account of his having neglected to connect a water-supply with closets in five houses owned by him in Aldenham-street, St. Pancras. A second summons charged him with disobeying an order issued to him by the Vestry to carry out the sanitary arrangements in question. Mr. Barstow, remarking that the case was a very bad one, ordered the defendant to pay a fine of £5 for each house on the first summons, and a fine of £1 for each house for every day after the expiration of the fortnight allowed him, viz., five days. The amount would therefore be £25 on each summons, or a total penalty of £50 and costs.

We last week alluded to a heavy sentence passed upon a butcher at West Ham for dealing in diseased meat, and we have now to record a praiseworthy effort on the part of the Birmingham magistrates to put a stop to this disgusting and dangerous practice. A butcher in that town was recently brought before them, charged with having in his possession a quantity of pickled diseased meat. The case having been fully proved, he was sentenced to two months' imprisonment with hard labour, in default of paying a fine of £20 and costs. In another case, a well-to-do butcher in





Summer-lane, Birmingham, was sent to gaol with hard labour for three months, without the option of a fine, for exposing for sale for human food various parts of pork, the animals having died from swine fever. The magistrates described these cases as gross in the extreme, and regretted their inability to impose more severe sentences.

On Saturday afternoon last, the Princess of Wales, one of the patronesses of the institution—accompanied by the princesses her daughters and the Hereditary Princess of Saxe-Meiningen, visited the Royal Hospital for Women and Children in the Waterloo-road. The Royal party were received, on their arrival, by Mr. J. F. Briscoe, the House-Surgeon, by whom they were conducted round the establishment. Her Royal Highness had provided herself with ample supplies of fruit and flowers, and these, in passing through the wards, she personally distributed to the different patients, the gifts in each case being accompanied by words of kindly sympathy. The visit lasted more than an hour, and at its termination the Princess expressed her satisfaction with the arrangements and general management of the institution.

At the last weekly meeting of the Hackney Board of Guardians, a question was asked as to whether it came within the province of the Metropolitan Asylums Board to provide for any such emergency as an outbreak of cholera within the metropolitan area. Mr. Andrew Wentzell, the Hackney member of that Board, pointed out that considerable difficulty would be experienced as to the removal of cholera patients to hospitals, the disease being so rapid in its progress. Though it did not come within the province of the Asylums Board to provide for this emergency, yet they were alive to the possibility of the cholera coming to London, and would be quite ready to carry out without delay anything that the Local Government Board might order them to do.

Three deaths have occurred since the outbreak of diphtheria among the troops at Aldershot, but the remaining cases are reported to be doing well. It is generally believed that the men who returned from the Egyptian campaign were the first to contract and spread the disease. It was at first reported that this sickness arose from the badness of the drinking-water at the camp, but this has since been contradicted.

#### THE CHOLERA IN EGYPT.

THE telegrams from Egypt on the last day of July and August 1 have been encouraging to this extent: that they state that the recent cases of cholera have been of a less virulent character, and the proportion of recoveries to attacks has been larger. But among the British troops the attacks are still very numerous, and the rate of mortality high. The report from Alexandria, of date August 1, records twenty-nine deaths from cholera among our troops in the previous twenty-four hours, and gives the corrected total of deaths up to that time as—officers, three; men, eighty. The extraordinary Council of the Government, of which Generals Stephenson and Wood, Baker Pasha, and Dr. Hunter are members, have declared the Board of Health to be utterly incompetent; and Dr. Hunter has been authorised to telegraph to India for the services of a Deputy Sanitary Commissioner, eight Anglo-Indian medical officers, and forty trained Moslem hospital assistants. On Wednesday a detachment of the Army Hospital Corps, numbering forty-three non-commissioned officers and men, with one warrant officer, were received on board the Peninsular and Oriental Company's steamer *Carthage* for conveyance to Egypt, where they are to be employed in the cholera hospitals.

#### THE MEDICAL ACT AMENDMENT BILL.

ON Wednesday, the 1st inst., Mr. Mundella received a deputation representing the Scotch graduates practising in London. The object of the deputation was to press upon Mr. Mundella the importance of securing to the Universities a preponderance, as compared with the Corporations, on the Divisional Board for Scotland. Sir Lyon Playfair having introduced the deputation, Sir Andrew Clark, Dr. Dyce Duckworth, and Dr. Cobbold urged that the Universities, as teaching and as examining bodies, had the confidence of the profession in a higher degree than the Corporations. Mr. Mundella promised that the Universities shall have a preponderating influence on the Divisional Board, and stated that he hoped to be able to pass the Bill this session.

#### ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Royal College of Physicians of London, held on July 26, Dr. William Osler, of Montreal, was admitted Fellow of the College, *in absentia*; Dr. Theodore Dyke Acland, having passed the required examination, was elected, *in absentia*, Member of the College. A letter was received from Lord Granville, stating that he had requested the Netherlands Minister to afford every facility to Dr. Duckworth and Dr. Ewart, who had been appointed to represent the College at the Congress at Amsterdam. The College were informed that the appointment of Sherard Professor of Botany in the University of Oxford, hitherto made by the President and Council, was, by a recent Act of Parliament, vested in Oxford University. The President stated that the marble sarcophagus for Harvey's remains had been completed, and it was proposed to have a suitable ceremonial in October, at which the Fellows were invited to attend. Drs. Fincham and Wilson Fox were elected Censors of the College, in place of Drs. Munk and Lionel Beale; Dr. Gowers was elected a Curator of the Museum, in place of Dr. Southey. Among the Examiners, the newly elected were Dr. John Harley in Physiology, and Dr. Broadbent in Medical Anatomy and the Principles and Practice of Medicine. A report was received from the Committee on the Medical Acts Amendment Bill, which stated that all the amendments recommended by the College had been introduced into the Bill.

#### THE INDIAN MEDICAL SERVICE.

IN the House of Commons, on Monday last, the Under Secretary of State for India gave some information of importance to officers of, and would-be candidates for commissions in, the Indian Medical Service. Replying to a question from Mr. O'Shea, he said, "The first and governing qualification for the receipt of 600 rupees a month is that the surgeon of five years' service who has passed the language test shall be in substantive charge of a regiment. Till then he is only strictly entitled to unemployed pay. The Bengal Army List shows that on January 1, 1883, of the eighty-five surgeons appointed during the six previous years, twenty-two were holding substantive or acting civil appointments of varying rates of staff pay, and eight had not passed the language test. Of the remaining fifty-five, only four were in substantive charge of regiments, and therefore entitled to the full rate of salary prescribed in paragraph 18 of the memorandum supplied by the India Office; but twenty-four were officiating for the actual holders of appointments, and were drawing acting allowances, which, though less than the full rate of salary, is more than the unemployed pay. The twenty-seven remaining officers held no charge, either substantive or acting, and were drawing only unemployed pay, as notified in the memorandum." This memorandum is, Mr. Cross admits,



the only official information furnished to candidates for the Service. It mentions only the salaries of the substantive appointments tenable by medical officers, and does not refer to the rates of officiating pay, which are not substituted for the rates laid down in the memorandum, but are supplementary to them, being payments to officers who do not come under the conditions of the memorandum.

#### DISTRIBUTION OF THIS YEAR'S HOSPITAL SUNDAY COLLECTION.

ON Monday last a meeting of the Council of the Hospital Sunday Fund was held at the Mansion House for the purpose of distributing the amount collected this year. It was shown that the total amount available for distribution, after allowing sufficiently for liabilities and the usual current expenses, was £32,243 (a less sum than last year), of which the Distribution Committee recommended the payment of £29,664 to ninety-seven hospitals, including six institutions which might be classed as hospitals, and £2579 to fifty-one dispensaries. In addition, 4 per cent. of the total sum collected, amounting to £1400, was set aside for the purchase of surgical appliances. The institutions benefited were three more than last year, and forty-three more than in the first year of the collection. The number of deputations invited to confer with the Committee, and to offer explanations on matters of apparently unsatisfactory character, was twelve. Of these, two attended from hospitals to which, after those interviews, the Committee agreed to raise their awards. Seven sent replies; from three no answers were received; and the application of a medical aid society was so unsatisfactory as to render its rejection absolutely necessary. Amongst the awards may be mentioned the following:—General Hospitals: Charing-cross, £731; French, £230; German, £731; Great Northern, £225; King's College, £1462; London, £3011; Metropolitan Free, £281; Poplar, £315; Royal Free, £450; St. George's, £1677; SS. John and Elizabeth, £123; St. Mary's, £1065; Seamen's, Greenwich, £787; Middlesex, £1518; Tottenham Training Hospital, £223; University College, £1004; West London, £309; Westminster, £900. Special Hospitals: Diseases of the Chest, Victoria-park, £731; Brompton Consumption, £1250; North London Consumption, £257; Diseases of the Chest, City-road, £225; National, for Consumption, Ventnor, £337. Bishop Claughton moved the adoption of the report of the Distribution Committee, and Sir E. H. Currie seconded it; but the latter gentleman remarked that the amount of £30,000 realised was hardly representative of the vast wealth of the metropolis, especially when it was recollected that from one church alone (St. Michael's, Chester-square) £1000 was this year received. Before separating, the chairman of the meeting, Sir Sydney Waterlow, made some observations on the circumstance that in one church, if not more, only part of the collections had been sent to the Fund. Not much harm had been done at present, he thought, but the Committee did not wish the practice to grow, and they would appeal to the clergy in future to devote the entire collections on Hospital Sunday to the Fund.

#### THE UNCERTAINTIES OF THE MEDICAL PROFESSION.

THE case of *Benthall v. the Earl of Kilmorey* and others, heard before Mr. Justice Chitty, in the Chancery Division of the High Court of Justice, on the 20th ult., would seem to illustrate the wide difference which so often exists between law and equity. The plaintiff in 1880 was appointed Resident Medical Superintendent of St. John's Hospital, Twickenham, and he brought this action for a declaration that he was entitled to hold such office during his good behaviour. He moved for an interim injunction restraining

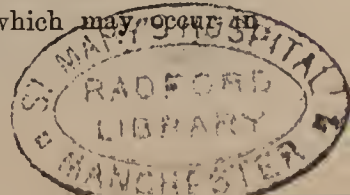
the defendants, the trustees and Committee of the Hospital, from disturbing him in his office, and from ejecting him from his residence in the building; from suspending the work of the Hospital, and from otherwise interfering with his tenure of office. It appeared that, by the rules under which the Hospital was constituted, discretion was given to the Committee to remove the Resident Medical Superintendent by written notice of three months, and of declaring the office vacant on proof satisfactory to them of neglect of duty, or of wilful disobedience to the rules of the institution. The plaintiff complained that although he had been put to great expense by the sacrifices he had made when he accepted the office, and had spent a sum of £400 in improving the residence attached thereto, he had recently received a three months' notice to determine his engagement, on the ground that the Hospital could not be carried on upon its present footing for want of funds, and that an application was about to be made to the Charity Commissioners for a new scheme not including the office of Resident Medical Superintendent. The plaintiff's case was, that as he had been guilty of no misconduct, the Committee were acting *ultra vires* in dismissing him from an office to which he had an indefeasible title under the provisions of the trustee deed. The defendants took the preliminary objection that the plaintiff, before commencing his action, had not obtained the sanction of the Charity Commissioners, as required by Section 17 of the Charitable Trusts Act, 1853. This objection Mr. Justice Chitty held to be fatal to the plaintiff's case. He admitted that if an application had been made to the Charity Commissioners for their consent to the action it would probably have been refused; but, on the other hand, he thought there was little doubt that, in preparing a new scheme for the charity, they would have given weight to the claims of the plaintiff. The motion was accordingly refused with costs.

#### UNIVERSITY OF GLASGOW.

THE graduation ceremony in connexion with the Medical Faculty of the University of Glasgow took place on the 26th ult. in the lower hall of the Museum. Principal Caird capped the graduates, who were presented by Professor Leishman; and Professor Gairdner afterwards delivered the usual vacation address to the new graduates. It was very pleasing to see the old familiar face of Professor Allen Thomson, who received a very warm reception from both new and old students. Many of Dr. Thomson's old students received the degree of M.D. Professor Gairdner gave a very interesting address, encouraging the new graduates, and holding up as examples many former graduates of the University who, in their student career and since then, have distinguished themselves.

#### THE RESULT OF THE LATE CHLOROFORM CONTROVERSY.

As one of the results of the late chloroform controversy in connexion with the Royal Infirmary, Drs. Samuel J. Moore and Dunlop, the Crown officials, received instructions to make post-mortem examinations in all cases of death reported as having taken place under the influence of anæsthetics, and that the reports of these gentlemen are to be submitted to the Crown authorities in Edinburgh. In England similar cases come under the investigation of the coroner. This step has been taken to infuse confidence in the minds of the public, and to make them see that the authorities have resolved to adopt such a measure as a means for securing the careful administration of anæsthetics. On inquiry, it seems that this new rule refers only to cases of deaths occurring in public hospitals. The Procurator-Fiscal will not interfere with cases which may occur in private practice unless reported to him.





## THE DISEASES PREVENTION (METROPOLIS) ACT.

THE object of this Bill, of which Sir C. Dilke has given notice, is to enable the Local Government Board to assign to the Managers of the Metropolitan Asylums District the duty of providing hospital accommodation for cholera patients, if an outbreak of cholera leads to the Diseases Prevention Act, 1855, being put in force in the metropolis. But the Bill will leave to the vestries the powers they now possess, either as sanitary or as local authorities, under the Diseases Prevention Act. The Bill also provides that in the case of vestries providing cholera hospitals, the cost of the hospital buildings and a considerable proportion of the salaries of the officers and attendants employed in the hospitals shall be a charge on the Metropolitan Common Poor Fund—i.e., a charge not on a particular locality, but on the whole metropolis.

## THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-ninth week of 1883, terminating July 18, was 993 (571 males and 422 females), and of these there were from typhoid fever 34, small-pox 6, measles 28, scarlatina 3, pertussis 10, diphtheria and croup 32, erysipelas 4, and puerperal infections 5. There were also 52 deaths from tubercular and acute meningitis, 190 from phthisis, 17 from acute bronchitis, 43 from pneumonia, 178 from infantile athrepsia (61 of the infants having been wholly or partially suckled), and 33 violent deaths (28 males and 5 females). The deaths for this week were exceptionally few, even in comparison with those of recent weeks; and the epidemic diseases call for no remark. It is exclusively among adults and the aged that the slight mortality has occurred during recent weeks. During the last week 250 infants have died, athrepsia having carried off the exceptional number of 178. The increase of mortality in summer among infants, and its decrease amongst the aged, are, however, matters of usual occurrence. The births for the week amounted to 1224, viz., 567 males (414 legitimate and 153 illegitimate) and 557 females (411 legitimate and 146 illegitimate): 94 infants were either born dead or died within twenty-four hours, viz., 58 males (47 legitimate and 11 illegitimate) and 36 females (30 legitimate and 6 illegitimate).

## THE PORT SANITARY AUTHORITY AND THE CHOLERA REGULATIONS.

WE have received a copy of the report of Dr. William Collingridge (Medical Officer of Health to the Port of London) to the Port Sanitary Committee on the Cholera Regulations of the Local Government Board, which were published in the *London Gazette*. The report deals with each of the articles of those regulations *seriatim*, and shows the steps which have been taken, or for which arrangements have been made, to give effect to each of those articles should the occasion arise. The duty in the first instance of discovering an infected ship rests with the Customs authorities at Gravesend, but even after a ship has been passed by them she may be detained by the Medical Officer of Health if he has reasonable grounds for believing her to be infected. Supposing that the Customs officer finds that the ship is infected, he will detain her and communicate at once with the Port Medical Officer at Greenwich, who will, without delay, proceed to inspect the ship, and take medical charge of the vessel. He will examine every person on board, and if he finds any cases of cholera, the ship will be moored close to the hospital-ship *Rhin*, and such case or cases transferred to the latter. Those who are found to be healthy will at once leave the vessel, leaving their names and places of destination, which will be of use in subsequently tracing the source of infection, should any arise.

The vessel will then be thoroughly disinfected, and any linen or clothing worn by those infected will be destroyed on board. The bodies of any who may die from cholera may be ordered to be taken out to sea, but an alternative funeral on shore is allowed if carried out by the Sanitary Authority. We think that the report is eminently satisfactory, as showing that the authorities are doing their best to provide against the introduction of cholera into London, by way of the Thames at any rate.

## THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association was held on Friday, July 27, at the Royal College of Physicians, London; Dr. Orange, of Broadmoor, presiding. After a vote of thanks to Dr. Gairdner, the outgoing President, the appointment of officers and Council, etc., took place; Dr. Manley was appointed President for the ensuing year. New statistical tables, which had been on trial for a year, were adopted, subject to certain revision. At the afternoon meeting, Dr. Orange delivered his presidential address on the subject of criminal lunacy; and a long and important discussion ensued, in which Dr. Bucknill, Dr. Hack Tuke, Dr. Nugent, and others took part. A resolution was ultimately adopted, to the effect that prisoners suspected of being mentally deranged should be examined by competent medical men as soon as possible after the commission of the crime with which they were charged, such examination to be provided by the Treasury, the examiners being the prison medical officer, the county asylum medical officer, and a neighbouring practitioner.

## A CASE OF PROGRESSIVE TOTAL HEMIATROPHIA.

DR. HENSCHEN, of Upsala, relates in a recent number of the *Nordiskt Mediciniskt Arkiv* a case which is almost unique in medical literature—presenting, as it does, a series of atrophic changes of half of the body, in the skin and subcutaneous tissue, as well as in the muscles, bones, and joints, principally in the face, the left arm, the left leg, and partly the left half of the trunk. The patient is still living, and therefore the pathological changes cannot be defined with any accuracy; but the appearances of the body, which are represented in a plate accompanying the paper, are very striking, showing an extreme degree of emaciation of the left arm and leg, and an appearance of the face almost identical with that seen in progressive facial hemiatrophia. The cranium above the eyebrows is nearly symmetrical, but on the plane below them the face exhibits a most marked asymmetry, the left half being considerably smaller than the right. The nose is, as it were, pushed towards the left; the left cheek is deeply sunken, destitute of fat, and surrounded with deep radiating wrinkles; the eye is very much sunken, but otherwise healthy; the eyelids deprived of their fat; the left zygomatic arch atrophied, as well as the soft parts surrounding this bony process. The skin and the lips of the left side are very thin; the upper and lower maxillary bones of this side are much atrophied. The teeth have been shed; the alveolar process of the left upper maxillary bone is wanting behind the second molar tooth, and the raphe of the palate is drawn to the left. All the right side of the face is healthy, with abundant fat. The neck is symmetrical. All the left half of the trunk is rather smaller than the right, but, with this exception, it is nearly alike, though some of the parts are atrophied. Over these atrophied parts the skin is as thin as paper, and the subcutaneous fat is almost entirely wanting, so that the muscular fibres form evident projections on the skin. The left arm and leg are remarkably atrophied, the fat being almost completely absent, the skin very thin, the muscles wasted, the joints altered in character, and some of



the bones united together—as, for instance, the tibia and fibula,—and the tibio-tarsal joint is ankylosed. The tactile sensibility of the atrophied parts is not remarkably altered, except that the left leg is more sensitive than the right, being more easily affected by cold, and perhaps also by electric irritation. The patient, who is now forty-six years old, was healthy up to the age of fourteen, when he suffered from a slight sprain of the left ankle-joint, and shortly afterwards he had an erysipelatous inflammation of the left leg. Since that time he suffered from pricking and shooting in the left half of the body, and at the end of three months some changes appeared in the extremities and the trunk, and, six months later, in the face. At this time he suffered from severe attacks of headache. At nineteen years of age he had melancholia, but he recovered, and now enjoys good health. He married at the age of forty, and had a healthy and well-formed child. All the changes above described first appeared, therefore, a short time after a sprain of the left ankle-joint. They have continued since that period, and the morbid process went on ascending to the central nervous system, the anatomico-pathological process being at present unknown, as well as the course which it has followed in the nervous centres.

SIR EDWIN SAUNDERS, Dental Surgeon to Her Majesty the Queen, has presented the leasehold premises, 39, Leicester-square, of the value of £2400, immediately adjoining the Dental Hospital of London, to the authorities of that charity, for the purpose of its enlargement.

THE foundation-stone of the new hospital which is to be in connexion with, and a memorial of the centenary of, the Royal Kent Dispensary, was laid on Wednesday last by the Earl of Dartmouth. It will be remembered that the new hospital is also intended as a memorial of the late Canon Miller, for many years Vicar of Greenwich, and one of the most active introducers and promoters of Hospital Sunday in the metropolis.

PROFESSOR G. M. HUMPHRY, M.D., F.R.S., has accepted the presidentship of the Congress of the Sanitary Institute of Great Britain, to be held in Glasgow in September next.

MR. FIELD, Aural Surgeon to St. Mary's Hospital, has been appointed Dean to the Medical School.

THE graduation ceremony in the University of Edinburgh took place on the 1st inst., when the degree of Doctor of Medicine was conferred on 30 candidates, and the degrees of Bachelor of Medicine and Master in Surgery on 138. William Hunter gained the "Ettles Medical Scholarship," as the most distinguished Bachelor of Medicine and Master in Surgery of the year; and the "Beaney Prize," as the graduate who obtained the highest marks in anatomy, surgery, and clinical surgery.

THE Brunton Memorial Prize of the University of Glasgow, given to the most distinguished graduate in medicine of the year, has been won this year by John Innes Dunlop, M.B., C.M.

At a meeting of the Court of Assistants of the Society of Apothecaries of London, held on July 30, the Gold Medal for Botany was presented to George Bernard Hoffmeister, of St. Bartholomew's Hospital; the Silver Medal and a book to Frederic William Green, also of St. Bartholomew's. The examination for prizes in Materia Medica and Pharmaceutical Chemistry will take place on Wednesday, August 15.

MR. EDWARD THOMAS THRING, University College Hospital, M.R.C.S. and L.R.C.P., has been elected to the Medical Scholarship of the Society of Apothecaries of London. The scholarship is of the annual value of £100, and is tenable for two years. The Surgical Scholarship will be competed for at the close of the winter session 1883-84.

## ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(From our Special Correspondent.)

LIVERPOOL, August 1.

FEW, if any other, towns like Liverpool can boast of having entertained the British Medical Association three times; and what is more remarkable is the fact that each previous meeting in Liverpool has been characterised by the discussion and adoption of new rules, or new projects, the carrying out of which has been of great and vital interest to the well-being and progress of the profession. Thus, in 1839, the "Provincial Medical and Surgical Association" (as the British Medical Association was then called) met in Liverpool under the presidency of the late Dr. Thomas Jeffreys, for its seventh anniversary, when the business occupied two days. On that occasion the Council first gave expression to the desirability of a single examining and licensing Board in each of the divisions of the United Kingdom, and promoted a sub-committee for the consideration of the scheme; the subject of vaccination was discussed, a long and very able report was presented on the state of vaccination, and the importance of free vaccination by properly trained and efficient vaccinators was urged and insisted upon.

Again, in 1859, the twenty-seventh anniversary meeting was held in this same city—then a town. At that meeting the Address in Physiology was delivered by Dr. A. T. H. Waters, who so fittingly presided over the present meeting. On both those occasions the meetings were held in the Medical Institution. In this present year of grace, however, the Association has outgrown that building, and its meetings are being held in the Liverpool College, the whole of which is hardly sufficient to accommodate the ten sections into which the work has had to be divided. This year will be memorable from the fact that a radical change in the management of the Association is to be proposed and decided upon. I say *decided* upon, for by its constitution it is impossible to do more than *decide* on any change; time is required, and many formalities must be gone through, before these proposed changes can become law: hence we remain *in statu quo* until the meeting in 1884, when the new rules, by which a more direct representation of the Association in its governing body will come into force. The selection of a place like Liverpool for this year's meeting was doubtless determined upon by the importance of the business to be transacted; and members have shown their sense of its importance by mustering in very large numbers. I will not anticipate what I must again refer to later on, beyond saying that the changes in the rules (more or less) were suggested by private members last year at Worcester; and although at that time not acceptable to the Council, they were supported by so powerful a vote of members outside the Council, as to be referred back to the Council for consideration. The Council have, I think, done well in reconsidering their views as expressed by one or two of their members last year.

According to the custom of many preceding years, the work of the meeting was inaugurated by a service in the Pro-Cathedral, when Dr. Ryle, the Bishop of the diocese, preached, choosing for his text, "and Luke, the beloved physician." The reverend prelate first dwelt on the importance which the Christian dispensation attaches to the body, as opposed to the contempt shown for it by the heathen philosophers. This was illustrated by the fact of the resurrection of the body of Christ, and by the teaching of the apostles. Where and how could the graces of temperance, sobriety, chastity, or self-denial, he asked, be shown forth



except in and through the body? He referred, in this connexion, to the Rev. Dr. Hobart's work on "The Medical Language of St. Luke," as proving that Luke was an educated physician in our sense of the word. A very flattering tribute was paid to the humanity and devotion of the profession by the Bishop towards the conclusion of his sermon, after which there was an offertory, the proceeds to be devoted to the British Medical Fund.

The real work may be said to have commenced with the first general meeting, which was held in the theatre of the College. The minutes of the last annual meeting having been read and confirmed, Dr. Strange, the retiring President, in a few well-chosen words, thanked the Association for the honour they had conferred upon him, and expressed the pleasure which his year of office had given him. He then relinquished the chair to his successor, Dr. A. J. H. Waters, who briefly acknowledged his acclamation to office. The report of Council, with financial statements for the year ending December 31 last, was next presented and adopted. The finances of the Society are exceedingly satisfactory, and leave nothing to be desired. Reference was next made to the changes in the by-laws, which it was proposed to submit for discussion. Mr. Wheelhouse, as President of the Council, briefly explained the nature of the proposed changes, and the reasons which had induced the Council to propose them. It was, he said, in response to a wish which had been widely expressed that the branches could be more directly represented in the Council. The changes proposed were radical, and required most careful consideration: their acceptance swept away the present Council and the Committee of Council, who had done good service. Besides this, the articles of association would have to be altered, for some of the new by-laws were inconsistent with these articles. He would just explain, therefore, that the new by-laws were only *proposed*. It was desirable that they should be considered, discussed, and, if necessary, amended, and finally, when they were approved by the Association, they could be formally proposed for adoption at some meeting which would have to be specially convened for the purpose. Next, the articles of association would have to be altered. It was evident, therefore, that the new rules could not come into force before next year. Meanwhile, the present Committee of Council would continue to act as heretofore. I cannot do more than glance at some of the more important changes which were proposed, and which, as I now write, have been practically adopted. The branches will have direct representation, and the number of representatives from each branch will depend in some measure on the number of members constituting the branch. Members unattached to branches (about one-third of the entire number of members of the Association) will still be unrepresented on the Council. From this Council a sub-committee is to be elected, to be called the Journal and Finance Committee, consisting of fifteen members, together with sundry *ex officio* members, of whom three shall form a quorum. Doubtless, as heretofore, the work of the Association will be carried on by this sub-committee. An important rule is also proposed, which says that "the three *elected* members who shall have been longest in office shall retire annually." This is also a concession wrung from the expiring Council, and has for its main object the gradual introduction of "new blood." The change is an important one, and can hardly fail to prove of service. An attempt was made to exclude *homœopaths* and *advertisers* by a special by-law; but, after a stormy and largely irrelevant discussion, the motion was lost. I cannot but refer briefly here to the great disorder which prevailed during the discussion of these by-laws. The cries and noise, the disregard of the chair, and the general unbusiness-like manner in which the proceedings were conducted, were quite unlike anything I ever saw, except, perhaps, at a similar meeting last year at Worcester. It would certainly be in the interests of the Association if the President would post himself up in the rules which govern such meetings, and insist on their being adhered to, or else dissolve the meeting. Nor were the proceedings much less disorderly at the adjourned meeting in the evening, at which the by-laws were further discussed. Suffice it to say that, finally, with a few modifications and improvements, the new by-laws, as proposed by the special Committee, were accepted; and it was decided to recommend their adoption at a later stage of this annual meeting.

The evening meeting (just alluded to) commenced with the President's Address. It dealt with generalities rather than with any special theme. His own connexion with the growth of the Association, and its work, were first touched upon; then came the subject-matter of his address, to which I may refer the reader. While I cannot but feel that I have listened to more brilliant discourses, yet I would not too lightly speak of the task which the incoming President is expected to fulfil, nor of the manner in which Dr. Waters discharged his unenviable duty. I cannot say much in favour of the acoustic properties of the theatre in which it was delivered; and the imperfect manner in which I heard what was said may, perhaps, account somewhat for the rather faint praise I have bestowed on it.

This morning (Wednesday) there was a second general meeting, at which a little formal business was transacted. The President announced that a pressing invitation from Belfast to hold the next annual meeting in that city had been accepted, and proposed that Dr. Cummings be elected President-elect. This was put and carried by acclamation. The chief work was Mr. Reginald Harrison's Address in Surgery. It dealt chiefly with urinary organs, the surgical treatment of the kidney, of the bladder, and of the urethra. It was well delivered, contained matter of great interest, and, at its close, elicited from the audience a most hearty vote of appreciation. After a brief adjournment for luncheon, sectional work commenced with great vigour. In the Section of Medicine the afternoon was devoted to nervous diseases, work being inaugurated by a discussion on Aphasia. In the Surgical Section, Mr. Rushton Parker opened up the subject of Intestinal Obstruction; while Dr. Dreschfeld discoursed learnedly on Micro-organisms in the Pathological Section. In the Section of Children's Diseases, after an interesting opening address from the President (Dr. Gee) on the early literature of this department of medicine, Dr. Barlow introduced a discussion on Rheumatism and its Allies in Children. The author endeavoured to expand the meaning of the term rheumatism, and showed how varied and manifold its manifestations are. A discussion followed, which occupied the entire afternoon.

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ROBERT KOCH.—The Berlin correspondent of the *Philadelphia Med. News* of June 23, furnishes the following account of this great investigator:—"There is no Berlin correspondent to-day who could avoid to mention the name of Robert Koch in one way or another. Therefore, it may be of some interest for Western readers to hear that this eminent man did not belong to the medical staff of some great hospital, or to the faculty of some celebrated university, but that he was a simple practitioner and State-physician in Wollstein (a small provincial town not far from the Russian frontier), at the very moment when he finished his luminous experiments on the bacillus anthracis and on septicæmia in mice. Struck by the profound ingenuity and exactitude of those experiments, Prof. Cohn, the well-known botanist of Breslau, in whose laboratory Koch had executed his first inquiries, made the proposition to him of coming to his University. He did so, but failed to get an appointment, and, after a half-year's waiting, returned to his former residence. Perchance, only a year later (in 1880), Prof. Finkelnburg, of Bonn, resigned his post of Privy-Councillor to the Imperial Board of Health (*Reichsgesundheitsamt*) in Berlin, and the Director Struck offered it to the provincial practitioner. Once put into his element, Koch developed an admirable activity. He filled his laboratory with all the instruments necessary for fruitful scientific researches in practical etiology, and began to work assiduously, but silently, until he went forth into one of the greatest scientific discoveries of the century, viz., the plain and clear fact of a bacillus representing the active principle of the tuberculous process—which fact stands unshaken even by the somewhat hazardous attack of Spina, of the Vienna Pathological School. Koch is now at work gathering all clinical facts which may contribute to confirm his theory of the communicability of phthisis. Besides this, he and his able assistants are fully occupied by a vast series of experiments in the etiology of other infectious diseases, the influence of preventive inoculations, and the efficacy of disinfecting methods. The discovery of a bacillus belonging to farcy, made by Prof. Schütz and Dr. Löffler, may be mentioned as one of the most important results in the first direction."



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, JULY 26.

*The Smoke Nuisance Act.*—In reply to Mr. Cubitt, Sir W. Harcourt promised to lay upon the table of the House a correspondence between himself and the Duke of Westminster on the subject of the defective administration of the Smoke Nuisance Act in the metropolis. He also stated that a further inspection had been made by the Chief Commissioner of the Police, when it appeared that the potteries of the metropolis had not complied with the Act; steps had consequently been taken with a view to the institution of proceedings against them, but the proprietors had promised to make satisfactory plans for abating the nuisance.

*The Cholera in Egypt.*—In reply to several questions, Lord Hartington said that the proportion of sick among the Duke of Cornwall's Light Infantry at Ramleh was 120 out of a strength of 784, or 15·3 per cent. One-fourth of the cases were venereal; and there had been some increase of febrile diseases, dysentery, and diarrhoea. The question of moving the regiments must be left to be decided by the general officer in command, with the advice of his principal medical officer. They only could have full cognisance of all the circumstances, and he had every confidence in their discrimination and judgment. Fourteen cases of cholera had occurred among the troops, and eleven had proved fatal. He had made arrangements for the publication of nominal returns of the soldiers dying of cholera in Egypt.

FRIDAY, JULY 27.

*The Cholera.*—Sir Stafford Northcote asked whether the Government had any information, confirmatory or otherwise, of the report that cholera had appeared in this country; to which Sir C. Dilke replied: Those suspicious cases that have been investigated during the last fortnight have all proved, on the report of the medical men, to be cases of simple cholera. There certainly appears to be no Asiatic or epidemic cholera in this country; and, so far as I know, there is none in Europe up to the present time. The deaths from simple cholera in England are at present much below the average for this time of the year. In London last week the number of deaths attributed to summer-cholera was only half the average.

MONDAY, JULY 30.

*The Cholera in India.*—Mr. O'Donnell asked the Under Secretary for India whether during the week ending May 30 there were 636 cases of cholera and 278 deaths in the Poonah district, and 395 cases with 220 deaths in the Thana district; and whether this proportion of deaths proved the virulence of the epidemic; and whether, in reference to some districts, as in Ahmednagar, the official reports failed to give any statistics, but confined themselves to the statement that there was "cholera throughout the district."—Mr. Cross said that the figures quoted for the Poonah and Thana districts were correct. As to the rest of the question, he said that generally the weekly season returns from the separate districts were not published unless the mortality was excessive. The statistics for Ahmednagar had been published weekly since June 5. Complete cholera statistics were given in the sanitary returns made up at the close of the year. Up to the end of last month cholera was very prevalent in the Deccan districts of Bombay, though the rest of the presidency was unusually free from it. The present epidemic did not appear to be of exceptional virulence. In 1881, with 16,700 deaths, the ratio of mortality to attacks was over 47 per cent., while in the present epidemic the ratio is 43. The average deaths from cholera in the Bombay Presidency for the fifteen years ending 1880 had been 20,172 per annum, most of which occurred between May and September.

*The Contagious Diseases Acts.*—In reply to questions from Dr. Farquharson, Mr. Hopwood, and Mr. Macliver, the Marquis of Hartington said he was ready, if it was moved for, to lay on the table of the House a memorial recently sent to the First Lord of the Treasury, showing the result of the suspension of the compulsory examination of public women; and the reply to it. It was true that the ratio of contagious diseases among the troops in the protected districts rose during 1877 to 1880 from 35 per 1000 to 74 per 1000—an increase of 39 per 1000. But, he added, it was

also true that during the same period the increase in the non-protected districts was from 68 per 1000 to 119 per 1000—an increase of 51 per 1000. A serious wave of venereal disease seemed to have risen in 1880, as there was a sudden rise of 27 per 1000 in the ratio of the diseases in protected districts, and of 59 per 1000 in fourteen large stations not under the Acts. By the later returns for 1881, not yet published, he found that the ratio for protected districts remained at 74 per 1000, while that for unprotected districts had risen to 126 per 1000. He admitted that there had been a large increase in the number of patients suffering from venereal disease in the naval and military hospitals at Stoke and Stonehouse; the number at Stoke being 185, against 118, and at Stonehouse 100, against 45, as compared with ten weeks of the same period last year, when the Contagious Diseases Acts were in full force. There had undoubtedly been a serious increase in the amount of the disease in the protected districts, but there had also been a large, though by comparison a lesser, increase in the unprotected districts, which would seem to point to the presence of some other causes as well as the suspension of compulsory examination of public women; and therefore the Government preferred to wait the result of further experience before deciding on any line of action.—In reply to a question from Sir H. Wolff, the noble marquis added that, though the Government had dropped the Detention in Hospitals Bill, he did not propose to do anything till they had further experience of the working of the present system.—Replying to questions on the same subject from Lord E. Cecil and other members, Sir W. Harcourt said the only connexion of the Home Office with the Acts is that the Metropolitan Police were recommended as an alternative agency in the working of them, but they were not essential to it. It was only in exceptional circumstances that they were employed in preserving law and order elsewhere than in the metropolis, and in his opinion they were already employed too much elsewhere. It was no part of the duty of the Home Office to instruct local authorities as to what they should do in the matter.

*Army Nurses.*—The Marquis of Hartington, in answer to Baron H. de Worms, said the pay of an Army female nurse is not stopped when she is in hospital owing to her having caught an infectious disease from a soldier whom she has nursed; though an orderly of the Army Hospital Corps in the same circumstances does lose his extra pay.

TUESDAY, JULY 31.

*The London Water-Supply.*—Dr. Cameron asked whether the attention of the President of the Local Government Board had been called to a resolution passed at a meeting of the Medical Officers of Health of the metropolis regarding the water-supply; and whether he would consider the propriety of directing, at least temporarily, control analyses, and supplementing them by examinations for microbic impurities by the methods devised by Professor Koch and Dr. Angus Smith.—Sir C. Dilke said the resolution referred to had been communicated to the Board. They did not find that the water-supply was referred to in it as "the important sanitary defect of the metropolis." The members of the Conference expressed their views as to the importance of a pure public water-supply, and stated that the amendment of the water service in detail would receive the attention of the medical officers of health. Experience had shown the need of watchfulness in the reservoirs and mains of the water companies. The Board had brought the resolution under the special notice of the Water Examiner of the metropolis. The Board had full confidence in the analyses made for them by Professor Frankland, and at present did not see any sufficient reason for obtaining control analyses. They had some time since arranged for samples of the water of the several metropolitan companies being supplied to Dr. Angus Smith, for examination according to the method mentioned. As to Mr. M. Henry's useful suggestion, that water should be supplied direct from the mains by standards in the streets, so as to avoid contamination in cisterns, etc., all he could say at present was that attention had been called to the point.

*The Contagious Diseases Acts.*—Mr. Gladstone, in reply to a question from Lord E. Cecil, said he had consulted with the Secretary of State for War, and was of opinion, with him, that the time which had elapsed since the resolution against the compulsory provisions of the Act was adopted by



the House did not disclose a state of things sufficient to warrant the Government in arriving at any positive conclusion, or in undertaking to announce any particular course of action. Out of a strength of 40,000 men there had been twenty-seven additional admissions per week. Some part of the increase, however, might be explained by the circumstances surrounding the removal of troops to different places. Replying to Captain Price, he further said he was aware that the restrictions of the Acts, whatever they were, operated upon the population of the places subject to the Acts as well as on the troops garrisoning those places. But if it was true that there were hundreds of young girls and women on the streets who would not have dared to carry on their trade had the Acts been in force, it appeared to him that the police would have power to deal with such abuses as they arose.

## FROM ABROAD.

### EXCISIONS AND AMPUTATIONS IN TUBERCULAR SUBJECTS.

PROF. OLLIER, in a paper published in the *Lyon Méd.*, June 3, thus sums up the conclusions which his extensive practice in this class of affections has led him to arrive at.—

"1. Articular excisions performed on tuberculous subjects may be attended with durable success. They allow not only of a local cure being obtained, but also of those general accidents being eradicated which have their source in the absorption of the products of articular tubercular disease. 2. The gravity of the tuberculosis is very variable. It may remain for a long time local, or what appears to be so, so slow is its progress, and so long does it continue unaccompanied by general phenomena. The question of soil (*terrain*) seems to exert a capital influence. 3. It is probable that, in the anatomical group of tubercular lesions, there may be pyogenic affections of different kinds. Histology has not as yet furnished us with the means of making these distinctions. Inoculation and a study of the tubercular microbe will probably allow of our soon establishing differences which, at the present time, we can only suspect. While awaiting the time when more complete notions concerning the tubercular microbe will allow of our measuring the gravity of the affections termed tubercular, we should establish our prognosis and our operative indications upon the progress of the affections, and the clinical characters. 4. Articular excisions in subjects who have presented all the anatomical and clinical signs of a tubercular affection have enabled us to obtain cures which have been maintained for fifteen years and more. 5. Amputations should be preferred to excisions in the grave forms of articular tuberculosis, especially in lesions of the lower extremities. We should have recourse to them when it is a matter of importance to suppress without delay a suppuration which threatens life. 6. In principle, amputations offer more shelter against secondary infections than excisions; but they never constitute a radical operation. The deep-seated and inaccessible ganglions, already invaded by the tuberculosis, subsist in the one case as in the other. 7. An excision followed by a complete local cure—that is to say, by the definitive cicatrization of the wound from the operation—does not expose more than amputation to secondary tubercular infection. 8. Hygiene and general medication are of great importance in the modification of the soil in which tuberculosis may become developed. Local modifications may destroy the tubercular tissues, and transform them into stable cicatricial tissue—such modifications, moreover, taking place spontaneously in many subjects, and especially in children. Notwithstanding the inoculability of its products, tuberculosis cannot be assimilated to cancer, whether as regards its prognosis or therapeutic indications."

### HÆMORRHAGE INTO THE NERVOUS CENTRES DURING PURPURA HÆMORRHAGICA.

Dr. Duplaix terminates a paper, published in the *Archives Générales* for April and May, with the following conclusions:—"1. There exist in the course of purpura hæmorrhagica certain cerebral disturbances which are of frequent occurrence, and which depend upon cerebral lesions. 2. These cerebral manifestations are very variable in their intensity.

Sometimes they are scarcely marked and pass unperceived, while at others they are sufficiently violent to prove fatal. 3. They recognise as their cause certain modifications in the condition of the nervous centres. Most frequently it is to cerebral anæmia that they owe their appearance, but there are cases in which hæmorrhages give rise to them. 4. These hæmorrhages are most often of but slight extent. They occupy sometimes the meninges and sometimes the cerebral substance, and oftentimes both the meninges and the brain. 5. True hæmorrhagic centres may exist without any fixed seat, the consequences of which are the same as those of ordinary cerebral hæmorrhage. 6. The hæmorrhages, whatever may be their extent, are very rare, and this rarity is explained by the complete cerebral anæmia which exists in most of these patients. 7. Their pathogeny does not differ from that of hæmorrhages of other organs, but we must take into account the conditions of the circulation and of the vascular changes which have been described, especially in the cases in which intense accidents have been slow of production in debilitated subjects. 8. The clinical manifestations have been very variable, and in relation to the extent and intensity of the lesions; nevertheless, there are cases in which, in spite of the existence of lesions, no symptom has been observed during life, and others in which anæmia has been the sole lesion observed in patients who have presented marked symptoms. The lesions taking place in centres (*foyers*) are the only ones which have well-defined symptoms. 8. The diagnosis is difficult in most cases, and hæmorrhage should be suspected always, notwithstanding the more frequent occurrence of anæmia. The prognosis is directly proportionate to the intensity of the nervous accidents."

## GENERAL CORRESPONDENCE.

### THE SANITARY LESSONS OF INDIAN EPIDEMICS.

LETTER FROM INSPECTOR-GENERAL R. LAWSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your remarks on the paper of Dr. Cuninghame, on the "Sanitary Lessons of Indian Epidemics," in the *Medical Times and Gazette* of July 21, you object to his statement that there is no evidence to prove that cholera is caused by any special contagium developed in the bodies of the sick, and communicated, either directly or indirectly, by human intercourse, on the ground that in Europe, and from Europe to America, it has invariably followed the great routes of trade, and that in countries which have direct communication by sea only with others where it is endemic or epidemic, it has invariably made its first appearance in those seaport towns which lie on the routes of such intercourse; and as constantly among persons just arrived from infected ports abroad. As Dr. Cuninghame has left England on his return to India, and it is of especial importance, at the present juncture, that we should confine our theories of the causation and mode of transmission of cholera to what we can establish by logical inferences from ascertained facts, I venture to draw your attention to some facts bearing on this question you have inadvertently overlooked.

The epidemic of 1873 in the United States commenced at New Orleans in February, and, during the summer, extended northwards along the valley of the Mississippi, and eastwards and westwards along those of the Ohio and Missouri, respectively, but did not pass into the valley of the St. Lawrence and great lakes, or cross the Alleghany range, so that the whole Atlantic seaboard and the country south of the lakes remained exempt, save at the south-west corner of Lake Michigan, where Chicago came within the epidemic field. The earliest known case occurred on February 8, in a man who came from Pensacola two months previously, and had since resided in New Orleans; the second, on the following day, was in a man who had lived in New Orleans four years: these men lived at a considerable distance from, and had had no communication with, each other. The next case occurred on February 27; and from that date to March 31, inclusive, eighteen attacks were recorded: of these, all except four were residents in New Orleans, though at points much separated from each other; of the four non-residents, two came from the Washita River above New Orleans, the other two from the country, the place not speci-



fied, but they were not recent arrivals from Europe. The Board of Health at New Orleans was most anxious to obtain exact information on every point connected with the origin of the disease, and investigated "all modes of infection and importation, as by visiting ships, the washing of clothing for persons connected with shipping, visiting sailors' boarding-houses, contaminated drinking-water, etc.," not only in these instances, but in every subsequent attack during the outbreak, and was led to the conclusion that it was endemic and had not been imported. Surgeon Van Buren Hubbard, U.S.A., who made an investigation in 1874, at the instance of the central Government, admitted, "It has been found utterly impossible to establish the arrival of individuals who were personally affected with cholera," but, instead of stopping there, he fell back on theory where facts failed him, and expressed his belief that the disease must have been introduced by emigrants from Europe, for which he offered no better reason than that quarantine had been enforced with laxity, and that cases of cholera might have passed without detection.

Three instances occurred during this epidemic in which parties of emigrants from Europe landed at New York in good health and proceeded to their destinations in the Western States, where, after opening the packages containing their spare clothing and bedding, which had not been exposed to the air since their departure from Europe, they were attacked with cholera; and the inference was drawn that these articles had conveyed the *materies morbi*, which, on being diffused, caused the disease among them. The first of these parties were Swedes, who had passed three weeks at Bergen, in the island of Rugen, in May, and early in June sailed for New York, where they arrived on the 26th of that month; the second were Dutch, who had left Tubbergen, on the eastern frontier of Holland, on May 31, for Rotterdam and England, and reached New York on July 5. The third were Russians, from the South; neither the exact locality from which they came, the date of their leaving it or of their arrival at New York, are given, but they reached their destination, Yankton, in Dakota, about August 25. Now, on tracing the distribution of cholera in Europe in 1873, it is found that the disease did not appear in Rugen that year at all, neither was there any in Holland in May; in its progress from Poland and Bohemia, where it had been during the winter, it reached Frankfort, Magdeburg, and Berlin in the middle of July only, though in Hamburg the first case was met with on June 21, and in the next three weeks there were only six fatal cases. In these two instances, then, the theory of importation breaks down at the commencement, there having been no cholera at the points of departure to supply the required *materies morbi*. The want of information as to dates and places, in the case of the Russian party, prevents a specific investigation in their instance, but the Russian returns show that several of the governments bordering on or near the Black Sea were free from cholera in 1873, and most of the others had it in a very slight degree only, and comparatively late in the season; so that even the probability of infection of bedding, etc., in this case is of the most shadowy description. When it is considered, however, that the party on their way from New York had to pass through an extensive range of country actually under the epidemic at the time, it will be seen it is impossible to exclude the operation of the causes of the disease they were there exposed to, which must have been done before it could be accepted as due to *materies morbi* brought from Europe. The above details are taken from the official Report "On the Cholera Epidemic of 1873 in the United States," Washington, 1875. A notice of the Report may be seen in the *British and Foreign Medico-Chirurgical Review* for July, 1876.

Turning now to England, there were several manifestations of malignant cholera in 1865, when the disease was extending over the South of Europe as an epidemic, in which form it did not reach this country until the following year. These manifestations were investigated minutely at the time, and the results are of particular value in this inquiry. The chief outbreak was at Southampton and its immediate vicinity, with contemporaneous manifestations at Weston Common and Bitterne, places two miles from Southampton, in different directions. A case had occurred in Southampton on August 12, which Dr. Langstaffe, who treated it, first thought to be a severe attack of cholera nostras, but subsequently was inclined to consider as true Asiatic cholera.

The first case, recognised at the time as malignant cholera, appeared on September 22 in a man named Rose, who resided at Brewhouse-court, five furlongs from the railway station. Rose had been affected with diarrhoea from the 17th, and died on September 24. On the 23rd a lad named Hill, residing at Weston Common, was attacked, having had diarrhoea for two days previously; and on the 26th his father and sister were also attacked with cholera. On the 27th a man named Stanley and his son were attacked at Bitterne, the latter having had diarrhoea since 17th, and the former since the 24th. On the 28th there was another attack of cholera in Southampton; and the disease went on until November 4, when, including all the localities named above, there had been sixty persons attacked. The late Dr. Parkes investigated this outbreak at the instance of the Local Government Board, with all the zeal and ability which characterised him, and in his narrative of it in the Eighth Report of the Medical Officer of the Privy Council (from which the above details are taken), in summing up the results, he stated:—"The origin by an unknown epidemic influence, alone or coinciding with local conditions, presents formidable difficulties, even if we cannot quite reject it. The origin by importation is deficient in precision of evidence."—(Page 436.) In short, though firmly believing in the possibility of the cause being introduced in this way, he utterly failed to trace importation in any instance.

About this time another outbreak took place at Theydon Bois, in Essex, which, had the facts connected with it come fairly before Dr. Parkes, might have influenced his opinion regarding epidemic influences. Mr. and Mrs. Groombridge, from Theydon Bois, had been at Weymouth for their health for fifteen days, when, on September 23, the former passed some time on the hills overlooking Portland harbour, exposed to a strong breeze from the sea; while in this situation he became indisposed, and diarrhoea, sickness, and cramp ensued, from which he suffered on that and the following day. On the 25th he was still ailing, but able to travel, and he and his wife returned to Theydon Bois by railway from Weymouth to Southampton, and on to London, and neither seems to have left the station while at Southampton. On reaching home, Mrs. Groombridge (aged fifty) complained of pain in the back and some discomfort in stomach and bowels, which she attributed to the shaking of the train. On the 26th diarrhoea ensued, followed by sickness and cramps on 28th, and collapse on 29th. Reaction commenced on 30th, secondary fever succeeded, and she died on October 11. On September 30 a daughter, aged eight, was attacked with cholera, and died the same night; and in the next week six other persons of, or immediately connected with, the family contracted the disease (including Mr. Groombridge himself on October 6), and some others followed. It was subsequently found that the soil-pipe from the water-closet leaked into the well from which the water for household use was drawn, and from the appearance of the spot this seemed to have been going on for a considerable period.

Now the question arises, Where did Mrs. Groombridge contract cholera? Mr. Radcliffe was informed by the local medical practitioners and others, that neither epidemic cholera, nor anything resembling it, choleraic diarrhoea, nor autumnal cholera, had been observed at Weymouth, Portland, or Dorchester in September, 1865 (*Transactions of the Epidemiological Society*, vol. iii., page 95). At Southampton, as already mentioned, the first attack of cholera (at this time) was on the 22nd, followed by death on the 24th, at a point five furlongs from the railway station; and a second case occurred at Weston Common, two miles from Southampton; but as neither Mrs. Groombridge nor her husband left the station or railway, communication with either was out of the question; and from Southampton to Theydon Bois no case of the disease was known. On reaching home it is highly probable that the use of contaminated water from the house-well aggravated, if it did not excite, Mrs. Groombridge's diarrhoea; but as, up to this time, no cholera evacuation could have had access to it, the so-called *materies morbi* was wanting, and the theory which would account for the attack by means of this breaks down. It may be asserted that Mr. Groombridge's attack at Weymouth was one of cholera, and that the well was contaminated by his evacuations; but, even if this were so, it only removes the difficulty of accounting for the first case from his wife to him, and the evidence is equally conclusive against his having contracted it from a previous case as with her.





The evidence, then, leaves no alternative but to fall back on epidemic influence coinciding with local conditions—a combination Dr. Parkes admitted he could not quite reject. That the local conditions were unusual at the time around Theydon Bois is indicated by the fact that several cases of common sporadic cholera occurred in the neighbouring districts of Epping, Harlow, and Mitchingham, quite unconnected with the Groombridge family.

It is obvious that as the combination of epidemic influence with local causes gave origin to one case, under favourable conditions it may produce an epidemic; and, as the epidemic factor is necessary to the result, no higher claim can be made for the cholera evacuations in evolving it, than for other forms of organic matter undergoing change—such as ordinary sewage, tainted meat or fish, or overripe and acescent fruit, or even sulphate of magnesia or other purgatives, the employment of any of which is well known to be very hazardous when cholera is present, and which cannot be regarded as containing the *materies morbi* of the disease as derived from the bodies of those labouring under it. The recognition of the Epidemic Influence not only enables a rational explanation to be given of all the facts detailed above (both in America and at Southampton), but accounts for many other outbreaks of cholera for which no importation could be made out; and no theory which does not take cognisance of it can be regarded as embracing the whole forces in operation. It may be said we do not know the intimate nature of Epidemic Influence. True; neither do we know the intimate nature of gravitation, but we recognise its existence, and have become acquainted with the conditions under which it operates, which information we employ to meet the requirements of daily life as they arise. So it must be with Epidemic Influence. Dr. Cunningham's Indian experience has led him to certain practical conclusions involving some of these conditions, and if we in this country wish to test their correctness, we can only hope to do so with success by analysing critically such evidence as presents the facts in a form that admits of our excluding what is non-essential in the combination of circumstances by which they are so frequently accompanied. The analysis of facts from independent sources here made is altogether favourable to Dr. Cunningham's views.

I am, &c., ROBERT LAWSON,  
London, July 26. Inspector-General of Hospitals.

[The position of the agnostic is *de facto* unimpeachable. But all that Mr. Lawson's letter proves is, what nobody denies, that in certain cases it was not possible to discover the origin of the outbreak in importation. The same might be shown in countless instances of diseases which, like small-pox and measles, are generally communicated by immediate contact with affected individuals. Much more probable is it with those which, like cholera and enteric fever, are mostly propagated by water and ground-air infected by others who have gone before. But no number of negative cases—cases in which information is simply wanting (for Mr. Lawson cannot disprove the possibility of its importation into one country when it was raging in others with which intercourse was going on),—no number of such cases can invalidate the conclusions to be drawn from numerous examples, for which we would refer Mr. Lawson to the same American report, in which the facts are positive and irrefragable—*e.g.*, that at Altenburg. But if Mr. Lawson will read page 101, he will find that the epidemic at New Orleans was by no means of the type with which he is so familiar in India, which now rages in Egypt, or which visited Europe and America in 1832, 1848, 1854, 1865-66, and 1872-73; but resembled rather the severe diarrhoeas which prevail everywhere in hot weather among insanitary surroundings. The symptoms yielded speedily to treatment, especially morphia injection; the mortality was very small, being variously estimated at 3 to 12 per cent., and the severest cases rarely ended fatally. If so, not only Mr. Lawson's conclusions, but his premises, fall to the ground. As to the German and Russian immigrants, though it would be hard to prove that any part of Eastern Europe was entirely free from cholera, there is no need to assume that they brought it with them. It is enough that they travelled through an infected district when in a susceptible state from fatigue, and probably want and dirt.—*Ed. Med. Times and Gaz.*]

## OBITUARY.

## ALEXANDER PATRICK STEWART, M.D., F.R.C.P.

IN the fulness of years, and after a life which had throughout been marked by high principle and singular unselfishness, Dr. Patrick Stewart died on July 17, in the house which he occupied in Grosvenor-street for thirty-eight years. He was known and beloved by many, especially in London, where he had resided since the year 1839; but he ever retained the clannish virtues that so strongly stamp the character of the Scot: he never forgot the land of his birth, and he ever took a keen interest in those of her sons who had embraced the same profession as himself. His father was the Rev. Andrew Stewart, M.D., minister of Bolton, East Lothian, who in early life had entered the medical profession, and obtained therein considerable reputation for his rational treatment of consumption; and his mother was a sister of the late Lord Blantyre, and had been one of his father's patients before he relinquished the medical profession for the ministry. Alexander Patrick Stewart was born in 1813, and graduated in Arts and in Medicine in Glasgow University, taking the degree of M.D. in 1838; and subsequently studied for about eighteen months in Paris and Berlin. The most notable of his contributions to medical science appeared almost in those student days, for it was at Glasgow that he was stimulated to initiate his inquiry into the nature of typhus and typhoid fever, and it was in Paris, in 1840, that his essay first appeared. The ardour with which he threw himself into that work, and the desire for knowledge that led him to extend his curriculum of study beyond ordinary limits, promised much for his future; but as years passed on he turned his attention to other channels, more useful, perhaps, for the mass of his fellow-practitioners, than for enhancing his reputation as a scientific physician. His powers and attainments, however, were fully appreciated, and whilst holding the appointment of Physician to the St. Pancras General Dispensary, he was appointed Lecturer on *Materia Medica* to the Middlesex Hospital Medical School in 1848, holding the chair in conjunction with Dr. Gordon Latham. In 1850 a vacancy on the hospital staff having been created by the resignation of Dr. Latham, Dr. Stewart was elected Assistant-Physician, and for several years had sole charge of the medical out-patient department. He was also appointed co-Lecturer on Medicine with Dr. Seth Thompson; and in 1855, on the resignation of the latter, he had for his coadjutor Dr. S. J. Goodfellow, when Dr. Stewart himself was promoted to the office of Physician. He retained this office until 1866, when he resigned. His old pupils speak of him with affection, for his kindness and consideration endeared him to many. As a lecturer he was fluent and eloquent, and in the wards he was always kind, considerate, and sympathetic; but the same reason which prevented his giving to the world contributions from his experience, militated also against the due performance of his hospital duties, and may have led to his desire to resign them at an earlier date than obligatory. However this may be, it would be wrong to conclude that Dr. Stewart cared little for the scientific part of his profession, which he had pursued so ardently in early years. On the contrary, he was a frequent attendant at the various medical societies; had held the office of Librarian to the Royal Medical and Chirurgical Society, and was one of the original members and later Vice-President of the Clinical Society.

He was most frequently before us, perhaps, in connexion with the British Medical Association, of which he early became a warm adherent. He believed fully in the principles upon which this Association was founded, and lived to see it attain a degree of popularity and prosperity which its promoters could hardly have dreamt of. At all its meetings Dr. Stewart was constantly present. The confidence placed in his sagacious counsels was such that for thirty years he was a member of the Council of the Metropolitan Counties Branch, and for a great part of that time one of its honorary secretaries; and for many years he had a seat on the governing body of the Association. The esteem in which he was held was evinced in the presentation in 1875, by members of the Association, of a testimonial for his services to the profession and the public whilst holding the office of secretary of the branch above mentioned. At his own desire by far the greater part of the amount col-



lected for this purpose was made over to the Association to form "a fund for the recognition and encouragement of important researches into the origin, spread, and prevention of epidemic disease"; and the first award of the "Stewart Prize" was made last year to Dr. Vandyke Carter for his work on *Spirillum Fever*. Dr. Stewart was also much interested in sanitary science, and read an important paper upon the Medical Aspects of Sanitary Reform at the meeting of the Social Science Association in 1877. It was in labours such as these that he felt most at home; but he was also a staunch politician, and in Parliamentary elections was found always ready to give his warm support to movements of the Glasgow and Aberdeen Universities in behalf of the Liberal cause. Thus was his life passed—running its even course, and free from any disturbing influences. He was eminently a good, upright, conscientious, honourable, and kind-hearted man; guided in his life and conduct by deep religious feeling and belief. He never married. Of his two brothers, one, David Stewart, entered the Army Medical Service, and lost his life during the Afghan war of 1841; and the other, the Rev. Dr. Robert Stewart, gave up his charge at the disruption of the Scottish Kirk, and is now Presbyterian minister at Leghorn.

Before we close this notice, a few remarks should be made upon the subject which has given him special distinction. His paper entitled "Some Considerations on the Nature and Pathology of Typhus and Typhoid Fever, applied to the solution of the question of the identity or non-identity of the two diseases," appeared in the *Edinburgh Medical and Surgical Journal* for October, 1840. The essay, which occupies some fifty pages of the journal, was read before the Parisian Medical Society on April 16 and 23 of that year; and it is quite possible that the attention paid to it in this country would have been greater had it been read—like the paper on the same subject by Sir (then Dr.) W. Jenner, in 1849—before the Royal Medical and Chirurgical Society. The clear, logical, and simple statements of fact in Jenner's paper succeeded in doing what neither Stewart nor others had done, viz., in convincing medical men upon the absolute dissimilarity in cause, symptoms, and pathology between these two affections; and the conclusions somewhat hesitatingly drawn by Stewart in 1840 were irresistibly established by Jenner in 1849. It must also be remembered that, for several years before Stewart's paper, suggestions and facts were being presented, all tending to the same end; whilst, in particular, the anatomical researches of Chomel and his pupils were demonstrating the occurrence of intestinal lesions in a certain proportion of cases of fever, which were called "typhoid," but not then clinically distinguished from the general type of typhus. In Glasgow, Stewart must have gained from Dr. Perry some of the ideas which he afterwards elaborated so thoroughly; for there can be no doubt that Dr. Perry did teach, although necessarily in but a tentative manner, the existence of the two types of fever, and published a paper on the subject in 1836; and even in Philadelphia the same doctrines were being also taught by Dr. Girland. The appearance of Stewart's paper ought, then, to have had a more decided influence upon the question which was agitating medical thought in all parts of the world than it did; and, perchance, if he had drawn his conclusions with a bolder hand, such might have been the case. The essay begins with an allusion to the difficulties that beset the question and the controversy then being raised about it; and then the author goes on to point out how, when he was at Glasgow, he was struck with the occurrence of two distinct classes of cases of fever—the one marked by its severity, rapidity, and absence of all local lesions; the other running a more protracted course and mostly characterised by such lesions,—and he then proceeds to discuss various points of difference systematically, showing that the causes of typhus were far better known than those of typhoid, and holding it to be doubtful whether the latter really depended on a specific poison, and if so, whether the poison was or was not generated under the same condition as that of typhus. Some cases of typhoid fever are given to illustrate the general clinical course of the malady; and then he dwells at considerable length upon the symptoms, analysing them in a most exhaustive manner. In this way he demonstrates the abdominal characters of typhoid fever, and clearly describes the difference in the eruption of typhus and of typhoid. The crowning distinction is made by the demonstra-

tion of the invariable presence of intestinal lesions in cases marked by typhoid characters clinically, and the absence of such lesions in the purely typhus cases. A few paragraphs enforce the lesson of the different lines of treatment to be applied in each variety of fever; and, with pardonable diffidence, Dr. Stewart thus sums up:—"On a review, then, of all that has been advanced, it would appear that typhus and typhoid fever present important differences as regards their probable origin, their proximate causes, their course, many of their symptoms, their diseased appearances, and the treatment applied in each. Are they, then, identical, or are they not? I feel that it would be presumptuous in me to hazard a direct reply; nor do I demand an answer in the affirmative merely on the faith of what I have stated. All I can ask or wish for is careful, extensive, and minute inquiry, without prepossession or love of system, and a satisfactory solution must soon be arrived at." We have dwelt at length upon this fruit of his early labours because we feel that it is by this work that Patrick Stewart in the future will be most remembered; because in his lifetime the essay seemed to be unknown to many or forgotten by others; and because of the regret that he did not himself continue the researches which he left to others to complete.

Few men have made more friends than he, and "Pat Stewart" was widely beloved. There was a geniality and kindness about the man which, notwithstanding his love of political warfare, always came uppermost. "No man," writes one who knew him well, "was ever more ready to help a friend, or even a casual acquaintance." Staunch in his patriotism, there are many of his nationality new in London who owe much to him for his sympathy and kindness in their early ventures; and some who have since made their mark might never have been introduced into the metropolis had it not been for Stewart. Of late years his health had been failing much, and he passed through more than one severe illness which caused great anxiety to his friends. When the end came he did not suffer long, for only a few days before the fatal cardiac seizure he had been present at a meeting of the Committee of Council of the British Medical Association. In his death our profession is the poorer by a straightforward, honourable gentleman, who combined in himself so many of those qualities which endure the most in the affectionate memory of those whom he leaves behind.

## MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on July 26:—

Coxwell, Charles Fillingham, M.B. Camb., London Hospital, E.  
Fox, Thomas Colcott, M.B. Lond., 14, Harley-street, W.  
Griffith, Walter Spencer Anderson, L.R.C.P., 66, Guilford-street, W.C.  
Jenkins, Edward Johnstone, M.B. Oxon., St. Bartholomew's Hospital, E.C.  
Kilner, Walter John, M.B. Camb., 104, Ladbroke-grove-road, W.  
Krauss, Adolph, M.D. Munich, German Hospital, Dalston, E.  
Nias, Joseph Baldwin, M.B. Oxon., 56, Montagu-square, W.  
Paget, William Smith, M.D. Lond., Great Crosby, Liverpool.  
Syers, Henry Walter, M.D. Camb., Pokesdown, Bournemouth.

The following gentlemen were admitted Licentiates on July 26:—

Audland, William Edward, 22, Merrick-square, S.E.  
Barefoot, John Richard, 121, Chesterton-road, W.  
Barron, Hunter Jackson, M.B. Edin., 10, Endsleigh-street, W.C.  
Bassett-Smith, Percy William, 62, Alexandra-road, N.W.  
Beales, Thomas William Lewis, 190, Holland-road, W.  
Blagg, Arthur Frederick, Infirmary, Rochdale.  
Cardozo, Samuel Nunez, 68, Guilford-street, W.C.  
Carlyon, Edward Tresiddy, 12, River-street, E.C.  
Cleaver, William Fidler, M.D. Kingston, 18, Easy-row, Birmingham.  
Collins, Edward Treacher, 1, Albert-terrace, N.W.  
Collins, Octavius Augustus Glasier, St. Bartholomew's Hospital, E.C.  
D'Aguiar, João Gomes, 18, Edward-street, N.W.  
Dalton, Arthur John, 2, Roslin-villas, South Norwood, S.E.  
Davies, Edward Cluneglas, Portfaen, Lampeter.  
Dowson, John, Guy's Hospital, S.E.  
Edwards, Arthur Rea, King's College Hospital, W.C.  
Embleton, Dennis Cawood, 25, Park-crescent, N.W.  
Gandevia, Naoroji Baranji, 3, Whitehall-gardens, S.W.  
Gardner, Thomas Frederick, University Hospital, W.C.  
Green, Charles David, 73, Shardeloes-road, S.E.  
Gunn, Donald Stilwell, 51, Park Village East, N.W.  
Hodges, Herbert Chamney, Watton, Hertford.  
Howard, Heaton Clark, 102, Lansdowne-road, S.W.  
Hubbard, Arthur John, 1, Ladbroke-terrace, W.  
Jennings, Robert, Haslingden, Manchester.  
Johnston, George David, St. Thomas's Hospital, S.E.  
Knill, Edwin Gilmore, 55, Torrington-square, W.C.  
Lathern, John Simpson, M.D. McGill, 2, Cornwall-road, Stroud Green, N.



Littlewood, John Oseroff, Guy's Hospital, S.E.  
 Llewellyn, David William Henry, St. Thomas's Hospital, S.E.  
 Mason, Arthur Henry, 15, Granby-street, N.W.  
 Maughan, James, 111, Bedford-street, Liverpool.  
 Payne, Frank Cobham, Plaistow, E.  
 Pinching, Horace Henderson, 14, Milner-street, S.W.  
 Polson, James Ronald, Stoke Prior, Bromsgrove.  
 Pomfret, Henry Waytes, Hollingworth, Manchester.  
 Roberts, Arthur Henry, Greenhill-road, N.W.  
 Robinson, Clement Sumner, St. George's Hospital, S.W.  
 Rogers, Frederick Arthur, Grange-road, Ealing, W.  
 Salter, Stephen Thomas, 28, Woburn-place, W.C.  
 Schofield, Alfred Taylor, 28, Cambridge-gardens, W.  
 Shone, William Vernon, 15, Granby-street, N.W.  
 Square, James Elliot, 22, Eastbourne-terrace, W.  
 Stroyan, Frederick, 8, Milman-street, W.C.  
 Tresidder, Harry Innis, Dulwich, S.E.  
 Waldy, John, 62, Stafford-place, S.W.  
 Walker, Charles Rotherham, Gainsborough House, Leytonstone, E.  
 Walker, John William, 9, Lidlington-place, N.W.  
 Walsh, John Henry Tull, Cancer Hospital, Brompton, S.W.  
 Ward, Anthony Arthur, 33, Walpole-street, W.  
 Williams, John Worthy, 58, Acre-lane, S.W.  
 Wilson, Alexander, Royal Infirmary, Manchester.  
 Withers, Oliver, New Basford, Nottingham.  
 Wood, Edward Archer, 17, St. Mary's-square, W.  
 Wright, Gaskoin Richard Morden, 128, Walworth-road, S.E.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 26th ult., viz.:—

Dudley, William, L.S.A., Kidderminster, student of the Birmingham School of Medicine.  
 Faraker, J. J., L.S.A., Cheshunt, of Guy's Hospital.  
 Fireman, A. L., L.S.A., Howden, Yorks, of Guy's Hospital.  
 Griffin, S. N. R. P., L.S.A., Padstow, Cornwall, of St. Mary's Hospital.  
 Merrifield, S. S., L.S.A., Plymouth, of King's College Hospital.  
 Shone, W. V., L.R.C.P.L., Great Marlow, of University College Hospital.  
 Stevens, F. J., L.S.A., King-street, Kensington, of St. Bartholomew's Hospital.  
 Street, C. T., Barnetby, Lincolnshire, of St. George's Hospital.

Four gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College. Nine candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months, three for three months, and two for nine months. The following gentlemen passed on the 27th ult., viz.:—

Brenton, W. H., L.S.A., Plymouth, student of Guy's Hospital.  
 D'Aguiar, J. G., L.S.A., British Guiana, of the Middlesex Hospital.  
 Gunn, D. S., L.R.C.P.L., Park Village East, N.W., of University College Hospital.  
 Hodges, James, L.S.A., Henley-on-Thames, of King's College Hospital.  
 Jago, J. S., L.S.A., Torpoint, Cornwall, of Guy's Hospital.  
 Lace, W. F., L.S.A., Pill, near Bristol, of King's College Hospital.  
 Ogle, A. W., L.S.A., Sevenoaks, of the Middlesex Hospital.  
 Parkinson, W. J., Bradford, Yorks, of Guy's Hospital.  
 Short, S. S., L.S.A., Edgbaston, of King's College Hospital.  
 Spencer, H. R., L.S.A., Atherstone, Warwickshire, of University College Hospital.  
 Wood, N. T., Knightsbridge, of St. George's Hospital.

Three gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College. Nine candidates were referred for six months, one for three months, one for nine months, and one for twelve months. The following gentlemen passed on the 30th ult., viz.:—

Myddelton-Gavey, E. H., L.S.A., Hildrop-crescent, N., student of St. Bartholomew's Hospital.  
 Tenison, E. H., L.S.A., Uxbridge-road, W.  
 Nine candidates were referred.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 26:—

Bowen, Randall Edward Arthur, Stockwell.  
 Chalmers, Alexander Henry, Howard-road, Penge.  
 Dyer, Sidney Reginald, Harlesden.  
 Harris, Charles Joshua Joseph, Strathblaine-road, Wandsworth Common.  
 Jollye, Arthur Dixon, Donington, Spalding, Lincolnshire.  
 Lace, William Francis, Pill, near Bristol.  
 Travis, William Owen, Liverpool.  
 Williams, Frederick Newton, George's-square, S.W.  
 Wilson, William, Drumbain, Ayr, N.B.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Brickwell, Henry Taylor, London Hospital.  
 Long, John William Francis, Guy's Hospital.

#### APPOINTMENTS.

KING, DAVID A., M.B. Lond., M.R.C.P.—Assistant-Physician to the Hospital for Consumption, etc., Brompton, *vice* Dr. Owen, resigned.

SMITH, JOSEPH, M.R.C.S., S.Sc.C., Camb.—Medical Superintendent to the Dalrymple Home for Inebriates.

THOMSON, ST. CLAIR, M.R.C.S.E.—House-Surgeon to King's College Hospital, *vice* B. H. L. Stevens, M.R.C.S.E., resigned.

#### DEATHS.

BRADFORD, HENRY, Surgeon-Major A.M.D., at San Francisco, on July 28, aged 33.

LEWIS, CHARLES BLAKE, Surgeon A.M.D., at El Warden, near Cairo, on July 30, aged 29.

#### VACANCIES.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary £120 per annum, with residence at the Hospital, attendance, coal, and gas. Candidates must be duly registered in medicine and surgery under the Medical Act, and unmarried. Applications to be sent to John Binks, Honorary Secretary, on or before August 6.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Candidates must be duly qualified men, registered both in medicine and surgery, and not over thirty years of age. Applications, with testimonials, to be sent to the Medical Superintendent (from whom all further information can be obtained), on or before August 20.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, LIVERPOOL.—Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be duly qualified. Applications, with testimonials, to be sent to Robert Calder, Secretary, 4, Commercial-court, 17, Water-street, Liverpool (from whom any further information can be obtained), on or before August 15.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\*\* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

Driffield Union.—Mr. John Dickson has resigned the Frodingham District: area 12,410; population 2163; salary £23 per annum.

Manchester Township.—Mr. Alexander Wattie has resigned the office of Resident Assistant Medical Officer: salary £150 per annum.

#### APPOINTMENTS.

Bury Union.—Thomas Mellor, M.R.C.S. Lond. and L.S.A., to the Workhouse.

Church Stretton Union.—Adrian Carey, M.R.C.S. Eng., to the Fourth District.

Liskeard Union.—Robert B. Mole, M.R.C.S. Eng., L.R.C.P. Edin., to the Seventh District.

Stoke Damarel Parish.—W. W. Pryn, M.R.C.S.E., L.S.A. Lond., to the Clowance and St. John's District.

THE Library of the Obstetrical Society will be closed from August 13 to September 13.

SORE NIPPLES.—Dr. Tauszky recommends the following application for excoriated nipples:—Balsam Peru 4, almond oil 6, rose-water 35, and mucilage 6 parts.—*New York Med. Record*, May 26.

#### APPOINTMENTS FOR THE WEEK.

August 4. Saturday (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



VITAL STATISTICS OF LONDON.

Week ending Saturday, July 28, 1883.

BIRTHS.

Births of Boys, 1350; Girls, 1281; Total, 2631.  
Corrected weekly average in the 10 years 1873-82, 2645.1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	847	758	1605
Weekly average of the ten years 1873-82, ...	929.5	840.8	1770.3
corrected to increased population ...			
Deaths of people aged 80 and upwards ...	...	...	41

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	4	3	1	4	...	...	...	40
North ...	905947	...	6	5	4	6	...	6	1	65
Central ...	282238	1	6	...	2	3	...	...	...	19
East ...	692738	...	24	15	3	6	...	4	...	59
South ...	1265927	5	23	9	3	10	1	3	1	71
Total ...	3816483	6	63	32	13	29	1	13	2	254

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.784 in.
Mean temperature ...	...	...	...	...	...	57.4°
Highest point of thermometer ...	...	...	...	...	...	73.6°
Lowest point of thermometer ...	...	...	...	...	...	47.7°
Mean dew-point temperature ...	...	...	...	...	...	51.8°
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0.41 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 28, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending July 28.	Deaths Registered during the week ending July 28.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2631	1605	21.2	73.6	47.7	57.4	14.11	0.41	1.04
Brighton ...	111262	60	42	19.7	75.3	49.2	58.4	14.66	0.38	0.97
Portsmouth ...	131478	88	38	15.1	...	...	...	...	...	...
Norwich ...	89612	48	30	17.5	...	...	...	...	...	...
Plymouth ...	74977	46	21	14.6	71.2	47.0	57.4	14.11	0.08	0.20
Bristol ...	212779	126	63	15.4	72.2	47.8	55.4	13.00	0.60	1.52
Wolverhampton ...	77557	43	24	16.2	63.1	43.1	51.0	10.56	0.17	0.43
Birmingham ...	414846	279	148	18.6	...	...	...	...	...	...
Leicester ...	129483	91	52	21.0	...	...	...	...	...	...
Nottingham ...	199349	148	72	18.8	67.4	41.5	53.8	12.12	0.19	0.48
Derby ...	85574	52	26	15.9	...	...	...	...	...	...
Birkenhead ...	88700	61	18	10.6	...	...	...	...	...	...
Liverpool ...	566753	376	272	25.0	63.7	49.2	54.6	12.56	0.57	1.45
Bolton ...	107862	77	46	22.3	...	...	...	...	...	...
Manchester ...	339252	235	166	25.5	...	...	...	...	...	...
Salford ...	190465	126	62	17.0	...	...	...	...	...	...
Oldham ...	119071	70	36	15.8	...	...	...	...	...	...
Blackburn ...	108460	86	29	13.9	...	...	...	...	...	...
Preston ...	98564	72	32	16.9	64.5	47.0	53.9	12.17	0.20	0.51
Huddersfield ...	84701	46	22	13.6	...	...	...	...	...	...
Halifax ...	75591	47	23	15.9	...	...	...	...	...	...
Bradford ...	204807	103	62	15.8	64.7	45.8	53.2	11.78	0.27	0.69
Leeds ...	321611	225	131	21.3	65.0	46.0	53.8	12.12	0.99	2.51
Sheffield ...	295497	213	110	19.4	70.0	46.0	54.9	12.72	0.10	0.25
Hall ...	176296	120	51	15.1	70.0	41.0	53.5	11.95	0.37	0.94
Sunderland ...	121117	121	43	18.5	...	...	...	...	...	...
Newcastle ...	149464	117	68	23.7	...	...	...	...	...	...
Cardiff ...	90033	66	33	19.1	...	...	...	...	...	...
For 28 towns ...	5620975	5773	3325	20.1	75.3	41.0	54.8	12.67	0.36	0.91
Edinburgh ...	235946	137	77	17.0	65.8	43.4	53.5	11.95	0.45	1.14
Glasgow ...	515589	367	214	21.7	71.0	42.5	56.0	13.33	0.18	0.46
Dublin ...	349685	186	146	21.8	70.0	43.0	54.6	12.53	1.18	3.00

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.78 in.; the lowest reading was 29.47 in. at the beginning of the week, and the highest 29.93 in. on Friday evening.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

*A Provincial Teacher.*—From July, 1882, to July, 1883, there were 1119 students from recognised medical schools examined for the diploma of membership of the College of Surgeons, of which number 795 passed the primary and 324 were rejected. For the final examination there were 769 candidates, of which number 488 were admitted members and 281 rejected. "Pass and Pluck" was published in this journal last week.

*Alleged Water-Pollution.*—At the Yorkshire Summer Assizes, in the Nisi Prius Court, the action Fovell v. Normanton Local Board was tried without a jury. The plaintiff complained that the defendants polluted the water which ran through certain lands by sending sewage matter therein, thereby rendering the water unfit for domestic purposes. An injunction was applied for. The defendants, it appeared, had tried two systems of sewerage, but they had failed, and they were now endeavouring to carry out another system, and asked for time. They had already spent £17,000, and would have to apply for another grant of money. It was arranged that a verdict should be taken for the plaintiff—an injunction being granted by his lordship, which would stand in abeyance for the present, to see if remedies were commenced in the meantime.

*Stratford-on-Avon Infirmary.*—Mrs. Ledbrook, of Hatton Rock, Stratford-on-Avon, has left by her will £500, free of duty, to the Infirmary.

*An Entertainment for a Charitable Purpose Declined.*—The Council of the Rugby Hospital have declined the offer of a theatrical establishment in the town to give a benefit performance for the institution. The manager was willing for the Council to select what play they chose.

*The Germs of Yellow Fever.*—Mr. Corbett, British Minister in Brazil, in reporting the disastrous outbreak of yellow fever in Rio this summer, refers to the remarkable results of the researches into the causes of infection made by Dr. Freire, one of the Medical Commission appointed by the Brazilian Government with that object. Having got from a foot below the surface of the soil in the cemetery some earth from the grave of a person who had died about a year previously of this disease, Dr. Freire subjected it to examination under a microscope magnifying 740 diameters, and discovered "myriads of living organisms exactly identical with those found in the vomitings, the blood, and other organic liquids of persons who have died of the fever." The observations, which are given in detail, together with other interesting experiments in the reports Mr. Corbett forwards, are verified by three other medical men. They show, according to Dr. Freire, that "the germs of yellow fever perpetuate themselves in the cemeteries, which are like so many nurseries for the preparation of new generations destined to devastate the city." Mr. Corbett remarks—what is a significant fact—that few or no cases have occurred amongst the shipping in the port, and that this immunity is attributed to the effect of a police regulation by which vessels are obliged, at this season, to move to some distance from the shore.

*Considerate Offer.*—The Mile-end Old Town Guardians have accepted an offer from Dr. T. Loane to take the school-children to Rye House for a day's outing.

*The Cultivation of Flowers by Poor Children.*—An exhibition of flowers took place a few days ago in the Vestry Hall, St. Pancras-road. The entries were 854 in number, supplied by 497 children. It is the outcome of seven years of encouragement given to the children of the poorer classes, who have been thus taught to take an interest in a thing which may permanently affect for good not only the taste, but the habits of these young people.

*H. M. H.*—The examinations at the College of Surgeons for the present session have been brought to a close.

*The Medical Officers of the Leeds Infirmary and Inquests.*—The Leeds Mercury states that during the holding of inquests at the Leeds Town Hall, Mr. W. Waddington, an Assistant-Surgeon at the Infirmary, stated that no officer was in attendance to give evidence in a certain case, as no one had been subpoenaed. The Coroner remarked that he had always tried to suit the convenience of medical officers of the Infirmary by taking their evidence at the earliest possible moment, and at once releasing them. It now appeared that one of the officers refused to attend upon mere notice, as he had formerly done, and required a subpoena. In future he should take care that subpoenas were issued in every case, and that medical officers should take their turn in giving evidence. The consequence, in this instance, was that the jury were put to great inconvenience and loss of time, as they would have to meet the next day to consider the case. The jury expressed their concurrence with the coroner's remarks upon the action of the medical officer. (It would be edifying to hear the story told by the medical officers of the Infirmary.)

*Dover.*—The official return for the past quarter, ending June 30, shows that the general death-rate was slightly above the recent low average, but the zymotic and infant mortality was low, the excess being among persons well advanced in life.



*Robert Williams.*—The large piece of sculpture in the Museum Hall of the College of Surgeons is by the late Mr. J. G. Lough, A.R.A. His widow, who survives, is a sister of Sir James Paget, Bart.

*Marine Stores a Nuisance.*—The Kensington Vestry has resolved that the attention of the Metropolitan Board of Works be directed to the serious character of the nuisance caused by the collection of putrid animal matter at marine stores, and that the Board be requested to consider as to the desirability of the business of a "marine store dealer" being declared an "offensive business" under the provisions of the Slaughter-houses (Metropolis) Act, 1874.

*When Doctors Differ, &c.*—At the recent Stafford Assizes, in a compensation case, *Gibbs v. the London and North-Western Railway Company*, the medical evidence was of a very conflicting character. The plaintiff, who had been acting for some years as the district manager of the Employers' Liability Assurance Company, was a passenger from Stoke to Birmingham on December 12 last, when the train, by which he was travelling, in entering New-street Station at high speed, came into collision with a Midland train that was standing at the platform. The plaintiff, among other passengers, was thrown violently forwards and then backwards by the shock, and his back, coming in contact with the dividing arm of the seat upon which he had been sitting, sustained injuries, which, according to his statement, had practically incapacitated him for business ever since, and would render him incapable of following his avocation for some time to come. For these injuries he claimed £2000 damages. The defendants disputed the claim, on the ground that the injuries had been greatly exaggerated, and that the damages demanded were excessive. For the plaintiff, medical witnesses testified that he had sustained serious injury to the spine, producing spinal irritation, and that it would be from one to two years before he could possibly recover his health. On the other hand, medical experts, on behalf of the defendant Company, declared the injuries received by the plaintiff were of a most trivial character, and confined to a few bruises on the calves of the legs. Mr. Oliver Pemberton, one of the railway company's surgeons, stated that when the plaintiff called upon him for examination, two days after the accident, he complained only of having been shaken, and having sustained a blow on the back of the head, and that there was no indication of any injury to the spine. Three days later he saw the plaintiff in the presence of his medical attendant, Mr. Warden, who maintained, in opposition to the witness, that there was spinal injury. Mr. Bartleet and Dr. Wade concurred in Mr. Warden's opinion as to the serious nature of the injuries; whilst Mr. Page, of London, corroborated the testimony of Mr. Oliver Pemberton. It was shown that the plaintiff's business had greatly fallen off since the accident, and that he had spent a good deal of time and money in going from one health resort to another, and had obtained medical advice in the places he visited. Ultimately, a verdict for the plaintiff with £1150 damages was returned.

*Fever Epidemic, Kilbarchan.*—In this village there has been for some time past a constant occurrence of fever. It has been most prevalent in those parts of the village where the streets are narrowest and the buildings most compact. Several cases have been reported in High Barholm. It is stated that the village has not been entirely free of fever for the past six months.

*A Well-merited Punishment.*—The Bolton county magistrates have made a severe example of a man charged with offering diseased meat for sale. A cow jolher was prosecuted for having on his premises the carcass of a cow in an extremely diseased condition, but dressed for food. The meat had been previously condemned, and buried in quicklime; but the defendant at night exhumed the carcass, and was detected carting it away by the police, who took charge of it for a second time. He was committed to prison for three months, the Bench regretting that the Act precluded the imposition of hard labour.

*A Successful Experiment.*—The fish dinners introduced in the Bristol Workhouse have proved most satisfactory. All the inmates, and especially the sick patients, were delighted with the change. Dr. Grace, the Medical Officer, considered it was one of the best improvements the Board had effected.

*The Proposed New Hospital, Rome.*—According to the official notice, the plans are to include, of course, the necessary administrative offices, a medico-chirurgical hospital of 450 to 500 beds, and a number of special departments for various classes of diseases. The hospital and polyclinical branches are to be constructed on the pavilion system, with buildings one storey high. The separate wards are not to contain more than sixteen or eighteen beds.

*Infantile Mortality.*—A correspondent states that fifty-five children died of measles and whooping-cough on board the steamer *Hankow* during her voyage from London to the Sandwich Islands.

*The British Workmen's Assurance Company.*—At the Nottingham Assizes, Baron Huddleston, in discharging three persons charged with conspiring to defraud this Company, said he wished it to be known that the directors and officers of such companies who received premiums from persons, at the same time knowing such persons had no insurable interest in the lives of those insured, were liable to be indicted. The great evil of small companies was that they induced poor people to gamble on lives.

*Overcrowding and Defective Sanitary Arrangements.*—At an inquest held by the Coroner for East Middlesex on the body of a child aged seven months, whose parents resided in London Fields, the jury, in accordance with the medical testimony, found that the deceased had died from "choleraic diarrhoea, accelerated by overcrowding and defective sanitary arrangements." It appeared four other children were down with a similar disease in the same house, which contains four rooms and a kitchen. The parents of the deceased, with their three children, occupied one room; two other rooms were each tenanted by a small family; and the landlord and his own family occupied the remaining room and the kitchen. A midden and a closet (to which no water was laid on) were the only offices attached to the miserable tenement. The house was very dirty, and an abominable stench pervaded the overcrowded apartments. The district sanitary authorities will, it is hoped, at once vigorously deal with the evils which are remediable of this wretched dwelling, and carry out an inspection of other tenements in the locality.

*Voz.*—Most of the modern hospitals in India are lined with the smooth and "washable" substance known as chunam (mortar made with lime produced from a small shell, and varnished). The nearest approach to it with us is the glazed tile so well known in the potteries in Staffordshire.

*An Enterprising Mayor.*—As a protest against the monopoly of fish profits existing in provincial towns, the Mayor of Stafford, at his own risk, ordered a ton or two of fish direct from Grimsby, and announced to sell it at 2d. per pound in the fish market. The average price of fish in Stafford has been 8d. per pound. There was an enormous rush to the market, and the whole of the fish was quickly sold. The experiment is to be repeated, and it was, it is stated, suggested by the aim and object of the Fisheries Exhibition. Did the sale repay the Mayor and leave him a moderate profit? If not, it was hard on the fishmongers.

COMMUNICATIONS have been received from—THE SECRETARY OF THE BRITISH MEDICAL ASSOCIATION, London; Dr. AD. CLAUS, Freiburg; Mr. J. F. PINK, London; Captain FRANCIS GALTON, F.R.S., London; Dr. NORMAN KERR, London; Dr. LESLIE PHILLIPS, Birmingham; THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS, London; Inspector-General ROBERT LAWSON, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Dr. MERCIER, Dartford; Dr. WATERS, Liverpool; Dr. RAYNER, Hanwell; Dr. HIGHAM HILL, London; Dr. A. T. THOMSON, Glasgow; THE SECRETARY OF THE GREAT EASTERN RAILWAY PUBLISHING DEPARTMENT, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Dr. MCKENDRICK, Glasgow; Mr. REGINALD HARRISON, Liverpool; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. SONSINO, Cairo, Egypt; THE SECRETARY OF THE SOCIETY FOR THE ADMINISTRATION OF HOSPITALS, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE OBSTETRICAL SOCIETY OF LONDON; Mr. T. M. STONE, London.

BOOKS, ETC., RECEIVED—The Operative Treatment of Hare-Lip, by James Whitson, M.D., etc.—A Rectal Obturator, by David Prince, M.D.—The Bead Suture, by David Prince, M.D.—Whitelead Workers—Correspondence relating to the Sanitary State of the Town of Port-Royal, 1883—The Life and Work of St. Paul, by F. W. Farrar, D.D.—Holborn District Board of Works Annual Report—On Nasal Cough, by John N. Mackenzie, M.D.—On a Hitherto Undescribed Malformation of the Naso-Pharynx, by J. N. Mackenzie, M.D., of Baltimore—The Extra Pharmacopoeia, by Wm. Martindale, F.C.S.—A Trip to the Ardennes—The Moselle—Holidays in Holland—Health Lectures for the People, vol. vi.—History of Rome, etc., by Victor Duruy, part 7.

PERIODICALS AND NEWSPAPERS RECEIVED—Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Physician and Surgeon—Philadelphia Medical Times—New York Medical Journal—Detroit Lancet—Glasgow Herald, July 27—Journal of Cutaneous and Venereal Diseases—Students' Journal and Hospital Gazette—Fortnightly Review—National Anti-Compulsory Vaccination Reporter—Australian Medical Journal—Ophthalmic Review—Dublin Journal of Medical Science—Birmingham Medical Review—American Journal of Neurology and Psychiatry—Toronto Sanitary Journal—Glasgow Medical Journal—Archives Générales de Médecine—Edinburgh Medical Journal—The Veterinarian.

ADMINISTRATION OF HOSPITALS.—The first meeting of the Provisional Committee of Hospital Managers, appointed at the recent conference held under the auspices of the Social Science Association, took place on Monday last. Steps were taken for adding further names to the Committee, and a sub-committee was appointed to prepare a draft programme for consideration by the enlarged Committee, the members of which will be called together in the autumn.

CHARITABLE BEQUESTS.—Under the will of the late Mr. Thomas Garfit, M.P., the following medical charities will be benefited:—The Lincoln and County Hospital, £200; Boston Dispensary, £100; Boston Cottage Hospital, £100; Louth Hospital and Dispensary, £100; Horncastle Dispensary, £100; and Mablethorpe Convalescent Home, £100; making a total of £700.





FIFTY-FIRST ANNUAL MEETING  
OF THE  
BRITISH MEDICAL ASSOCIATION,

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ADDRESS IN PATHOLOGY.

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ON THE AUTONOMOUS LIFE OF THE SPECIFIC INFECTIONS.

MR. PRESIDENT AND GENTLEMEN,—I have unusually good reasons for prefacing my address with an apology. I cannot claim to speak from the fulness of experience, which has given so much value and distinction to the addresses that have been delivered before the Association; and I have a subject assigned to me which demands experience and a mature judgment in no ordinary degree. Pathology is a growing science, its aspects are constantly changing, a single year's work brings us a multitude of new and often puzzling facts; and although the issues are of the most momentous kind, not even the wisest and most judicial minds in the profession can always see their way to a clear and definite opinion.

But, amidst all this uncertainty, there is one central and guiding principle in the doctrine of disease which we may hold fast to. It is the physiological principle, or the idea that diseased states of the body are but modifications of healthy states, deviations from the beaten track, perturbations of the normal life, shortcomings of the physiological standard. Thus, even in so formidable a malady as diabetes we are still within sight of the line of health: there may be a physiological glycosuria; and that fact, as Dr. Bence Jones says, proves to us that the disease is only a little way distant from health. "Here as elsewhere," says that eminent chemist and pathologist, "there is no definite limit where health ends and disease begins." To find the proper physiological analogies for diseased processes is the task of modern pathology; and I do not think that there is, in the whole range of science, any better kind of intellectual exercise than to expose the working of the ordinary laws of structure and function under the mask of disease. The physiological idea is, indeed, the hope and inspiration of pathological science, as it is also of medical practice. But there is no reason why I should attempt to say again what has so often been well said before. Members of the Association who heard Professor Michael Foster, at the Cambridge meeting, discourse on the "Relations of Physiology to Pathology," will not have forgotten how he proved that the difference between these two sciences was merely a superficial difference, whether as regarded method or subject-matter. We shall, most of us, also recall Professor Huxley's lucid exposition before the International Medical Congress, of the "Connexion of the Biological Sciences with Medicine," wherein he showed that pathology was that branch of biology which concerned itself with perturbations of the normal life.

That view of pathology is one that we all share; and as I have endeavoured, according to my opportunities, to work out physiological analogies of disease in particular instances, I shall not be suspected of any want of sympathy with the general principle. But I am none the less confronted with the difficulty that a great deal of pathology appears to be quite different in kind from any physiology known to us. What are the physiological analogies of the infective and constitutional diseases, and how large a part of pathology do the diseases of that class stand for?

There is, I believe, a serious difficulty here, and a difficulty that made itself felt in the very first system of physiological medicine that was given to the world. Broussais was the author of the first attempt at a physiological scheme of disease; and it was only a year or two ago that Professor Charcot was claiming for his brilliant countryman the credit of having broken down the dualism of health and disease, and of having eradicated that old and pernicious habit of

regarding disease as a separate entity. But Professor Charcot said nothing of the rock on which Broussais is generally accounted to have made shipwreck. The author of the first physiological medicine was thorough-going, and it was because he endeavoured to be comprehensive and consistent that he failed. He left out no great disease from his physiological scheme, not even typhus nor Asiatic cholera; they were all perturbations of the normal life, and a good many of them were forms of gastro-enteritis. Professor Charcot may be right in claiming the physiological medicine of Broussais as the example for all subsequent times; but it is quite certain that it served also as a warning to those who next took the physiological medicine in hand. They were careful to lighten the ship by throwing overboard Asiatic cholera, typhus fever, and, in fact, the whole of the acute and chronic infections. Just about the time when the thorough-going system of Broussais had provoked the inevitable reaction, Professor Henle had made his suggestion about minute parasitic organisms being the causes of the specific infective diseases; and it is curious to read, at a distance of forty years, in the first volume of the German *Archives of Physiological Medicine* (page 88), how Griesinger, one of its sponsors, promptly availed himself of the parasitic hypothesis of Henle in order to account for all those diseases which had been prudently omitted from the physiological programme.

But I venture to say that, when we congratulate ourselves upon the physiological basis of pathology, we do not always reflect how much of disease is thus excluded from the class of disturbed physiological processes, and how small a fraction remains to fill the physiological categories. There are several passages in Sydenham's works in which he gives his estimate of the proportion that the species of disease—the *morbi typo induti*—bear to the rest; he estimates diseases of a specific type at two-thirds of the whole; and it will be admitted, I think, when we look abroad as well as at home, and when we read history as well as contemporary records, that this estimate shows his fairness of mind and his sense of proportion.

The serious difficulty, then, which I spoke of—the difficulty that must have been present to the mind of Broussais, and must occur more or less to everyone—is that a physiological medicine, which leaves out the larger and more formidable half of disease, is hardly worthy of the name. The doctrine that morbid processes are after all merely perturbations of normal processes, or, as Hunter said, "a perversion of the natural actions of the animal economy," is the great principle of scientific pathology; but we shall have to speak less enthusiastically of it, if it should appear that it has no place for the long list of infective diseases—for plague, for cholera, for yellow fever, for typhus, for small-pox, for leprosy, for syphilis, for cancer, for consumption. If the physiological idea is to be good for anything, it ought to be good for those; for they are the real difficulties of pathological science, and the real *opprobria* of the medical art.

I am sanguine enough to believe that the physiological doctrine will one day be shown to be as large in its application as it is rational and hopeful in its spirit. It is for that reason that I have decided to use this public opportunity that has come to me—and come to me most unexpectedly and, I feel, most undeservedly—in order to speak of certain aspects of the specific infections, which are perhaps not the aspects most commonly brought before us at present. One would wish to think of these diseases, strange and terrible though they be, as still joined in continuity with the common disorders of structure and function; and I am accustomed to express for myself this connexion by a formula, which has no other value than belongs to a mode of thought or a form of words, but may still serve as a convenient or empirical standing ground for those who seek to observe a certain unity and sequence in their study of disease.

I shall endeavour, then, to discover some relation between common aberrations of structure and function and the specific infections, or a relation between disordered states of the body and the self-existent species of disease; and I shall make this attempt with two or three representative instances. It will be convenient to begin with cancer, for the reason that the suggestions that I have to make arise most naturally out of the study of cancer.

Cancer is an infection, although its infective power does



not extend, except in heredity, beyond the individual body in which the disease takes its rise. I do not forget that some pathologists consider cancer to be no more than an overgrowth of epithelium. But we shall find it difficult to explain to a patient with cancer that he is suffering merely from an overgrowth of his epithelium. All the world knows what cancer is, and no microscopic analysis will ever persuade men that cancer is anything but the devouring thing, the implacable enemy, that the common eye sees it to be. What the microscope does show us, is that a cancerous tumour has not always been cancerous. If we take any of the common seats of cancer—the stomach, or the uterus, or the breast,—we shall find that the disease may be traced back to a point at which it comes within the category of structural and functional irregularities. I say structural and functional, because it seems to me that if we attend only to the structural features of the disorder, as some of our German colleagues are content to do, we are likely to miss the central idea of the deviation from the normal. In the favourite seats of cancer, the secretory function is not always or altogether what we often take secretion to be. Under certain circumstances, solid products, or cells, form part of the secretion, and those cells do not always get carried off, as the cells do in an ordinary catarrh, by discharge from the surface, or by way of the lymphatic drainage, but they may stagnate and accumulate in the deeper textures of the organ or part. So far, there is nothing in the morbid process for which we may not find close physiological analogies. In some of the secretions of the invertebrata, and even in certain glands of the higher animals, the secretion retains its solid or cellular character for a considerable time. Again, the heaping up of the solid or bye-products of secretion in the spaces of the underlying connective tissue is found to occur in the breast as a perfectly natural incident.

Still further, the free space of a gland may become filled with cast-off epithelial cells; or the epithelial lining may be raised into wart-like growths. Even a whole gland, like the breast, or a whole lobe of the gland, may be uniformly affected in the way of overgrowth, producing an adenomatous condition, or the condition of simple glandular tumour. There is nothing cancerous in all this; we are still within sight of the line of health. The cancerous element comes in usually after a particular time of life, and it consists in the implication of other tissues than the glandular or secreting structure, whose irregularities were the exciting cause. Epithelial cells that have not been used for secretion can become mischievous as infecting cells, and if we now examine the region of disease, we shall find the marvellous spectacle of an epithelial kind of structure springing from the tissues around where there is no epithelium naturally; a little later, the same epithelial pattern is, as it were, carved out of the parenchyma of lymphatic glands, or of the liver, or in the deeper layers of the skin, or even in still more unexpected places. The pattern of this widely distributed structure is always the same in a given case, and there is always something in it which reminds us of the primary seat of glandular disturbance. An intelligible disorder of structure and function, not without its close analogies in physiology, has acquired a kind of individuality or independence, and a power to reproduce itself throughout the body; or, in other words, it has become a ravaging cancer.

I shall not delay here to go into the particulars of this extraordinary process, or to enter upon any controversial matters. I take cancer as a striking instance of a disease which may be traced along the track of physiological perturbations for a certain distance, after which it becomes what all the world knows it to be—a semi-independent life, an *imperium in imperio*, a power inseparable from the general life of the body, compatible even with blooming health for a time, but in the end sure to gain the mastery.

In taking a full and fair view of cancer, of its physiological beginnings, and its ultra-physiological course, we cannot but admit that there is some truth in that hard saying of Paracelsus: "In such a disease, a man is himself and another; he has two bodies at one time, enclosed the one in the other, and yet he is one man." This kind of Platonic mysticism is not what one would choose to import into exact science. But we are bound by a regard for facts; and I do not see how the facts of cancer, whether they be microscopic or clinical, can be done justice to, unless we

admit that a state of the body may be raised to the power and dignity of a life of semi-independence. I purpose speaking, in the sequel, of this semi-independence under the name of autonomy; and I shall endeavour to show, in the case of two or three other representative infective diseases, how a perturbation of the physiological life has acquired its autonomy, or what the pre-autonomous stage of those infections may have been. This doctrine of acquired autonomy and the pre-autonomous stage is the formula in terms of which I would express the relation between ordinary perturbations of structure and function and the specific infections, the relation between disordered states of the body and the self-existent species of disease.

If cancer has always been the great popular instance of a disease enjoying a kind of life of its own within the body, consumption hardly yields to it in its relentlessness, and it far exceeds it in its prevalence. Is it possible, in the case of consumption, to show that a wasting infection has arisen out of common disturbances of the physiological life? Before so critical an audience, I shall not have the hardihood to speak of consumption in general—of the disease about which so great masters in pathology as Laennec and Virchow have differed widely. But there is a form of tubercle, the bovine form, in which the facts are much less ambiguous, and much easier to deal with, and, as it happens, more familiar to myself; and for bovine tubercle, or, as it is sometimes called, the pearl-disease, I shall venture to inquire whether the small beginnings of it may not be found in a certain kind of disturbance of ruminant nutrition, just as we find the pre-cancerous stage of cancer in certain irregularities of the apparatus and process of secretion. Those beginnings would correspond to what I have called the pre-autonomous stage; while the autonomous life of the disease, as a semi-independent thing, would be shown in its infectiveness.

Bovine tubercle is a more complete example of infection than cancer. It is a constitutional disease pervading the whole body; it is likely to end in wasting and cachexia; it is very liable to be inherited by the offspring; it can be given to other animals, by inoculation or by feeding, in experiments, and probably also by accident; and there are recorded cases in veterinary practice, which lead us to think that it hangs about a stall, or spreads from stall to stall by volatile contagion. There is, in fact, no disease, in human or veterinary pathology, that shows a more complete autonomy; it is constitutional, hereditary, infective, and contagious.

The pearl-disease is peculiarly a ruminant malady, and it is curiously limited within the ruminant order itself. It does not occur in the sheep, nor, as far as we know, in the deer; and by far the larger number of cases are found in the domesticated bovine species, in which it is, indeed, much too common. I have been on the outlook for specimens of it among the animals that die in the Zoological Gardens in London, and my experience hitherto has been curious and suggestive. I have hitherto found the peculiar anatomical characters of this form of tubercle in only three species: the eland, a large South African antelope, like a cow; the nilghau, a large Indian antelope, whose name means "the blue cow"; and the prong-horned antelope from America, another of those half-way animals between the bovines and the antelopes, which the late Mr. Forbes, the Prosecutor at the Zoological Gardens, took much interest in as a transition species. It is certainly a remarkable thing that those antelopes, which resemble the bovines so closely in zoological characters, should resemble them also in their liability, under confinement, to a distinctive kind of new formation. This kind of tubercle is not only an affair of the ruminant order, but it is an affair of a small group of ruminants, mostly belonging to one genus.

What, then, are the distinctive anatomical characters of this distinctively ruminant disease? The morbid anatomy of bovine tuberculosis has been written with as little reference to theory or preconceived opinion as could be wished. It has been, in great part, observed by those whose business lies with cattle; and the popular names of the disease in all countries will show us how it has presented itself to the common observer. The various names show that it is primarily an affection of the serous membranes; the Germans have called it the "pearl-disease," from the rounded whitish nodules attached to the abdominal and



thoracic surfaces; the French have named it "pommelière," from a fancied resemblance of the nodules to clusters of potatoes; in England, it has been called "the grapes"; and in Scotland, "angle-berries." I am merely repeating the language of all authorities, including Professor Virchow, when I say that the disease is primarily one of the serous membranes—a growth of multiple nodules, usually small and flattened, often suspended by a stalk, and sometimes as large as a cherry or an apple. These are the beginnings of the disease; but it extends from the serous membranes, by infection, to the lymphatic glands, which become changed into the same mortar-like substance that is found in the degenerated nodules. The lungs, also, are very apt to get infected, as they so often do with new formations of a sarcomatous nature; and the infection may, in the end, reach most of the organs, as well as the bones and joints, causing the animal to die of general cachexia and wasting.

Such is the usual sequence of events where the disease is originally acquired; but in the cases of inheritance—and these are now estimated at more than one-half—there may be some departure from this order; in them, the formations in the lymphatic glands, lungs, and other viscera, may be more conspicuous than the serous-membrane nodules; but even in the inherited disease, the pleural or peritoneal surfaces will usually show characteristic traces of the primary new formation. Some allowance must be made for certain modifications in the order and distribution of the disease, when it is communicated directly to the offspring by a sire or dame which had acquired it; and it is all the more necessary to be clear on this point, since, at the present day, the hereditary taint would seem to be so widely distributed throughout the bovine stock as to obscure somewhat the original characters of the disease. In what I have to say, I must speak of the disease as it is primarily acquired, and as it is described in the earliest writings, and by its popular names.

It starts, then, as a multiple nodular condition of the abdominal and thoracic serous surfaces, it acquires the character of a constitutional disease, it goes all through the body, it passes directly to the offspring, it may be inoculated upon healthy animals or communicated to them by feeding, and it is not improbable that it passes by volatile contagion. The infectiveness within the original body, and the faculty of passing to other animals, is what I would call its autonomous life, and I would look for its pre-autonomous stage in the peculiar groups of multiple nodules on the serous surfaces. What, then, is the origin of these nodules? In what relation do they stand to any known disorders of ruminant nutrition, or, rather, of the nutrition of those ruminants that are closely confined, artificially fed, and over-milked?

I am not aware that the suggestion which I have to make has occurred to anyone before, and I put it forward, therefore, with some diffidence. This suggestion arises out of a consideration of the forms and favourite seats of the nodules, and of their structure, and degenerations. One cannot help observing that these multiple nodules are especially apt to grow in the seats of fat-formation, and to assume the external form of deposits of fat, either the stalked and pendulous form, or the flattened form of confluent lobules or patches. Now, the bovines are somewhat peculiar in the way in which they lay on fat. They have not so much of subcutaneous fat as the sheep or the pig, but they are very apt to have internal formations of adipose tissue, sometimes in situations where one would imagine that it could serve none of the ordinary purposes of fat. Besides the common deposits of fat about the abdominal organs and in the thorax, there may be lumpy masses of it even on the pleura covering the ribs, and on the diaphragm; and, in highly fed animals, it is not unusual to find a lobulated layer of the same tissue all over the surface of the spleen, and even on the surface of the liver. It can hardly escape us that those serous surfaces which are invaded in the course of this excessive fat-forming habit are just the localities where the pearl nodules are found. There is, indeed, one rather important exception to this rule, namely, the borders and surfaces of the lungs. I cannot say whether a border of fat ever occurs round the margins of the lungs in cattle as it occurs round the spleen and liver, or under the pulmonary pleura, as it is found under the costal pleura; but, if that should be the case, the analogy with the pearl-disease would be complete, so far as situation goes; otherwise, we must explain the

nodule of the pulmonary pleura on the hypothesis of secondary infection. As regards form, the resemblance between the physiological and the pathological formations is most striking; in both cases we may find either a finely lobulated stratum of translucent tissue, or coarser lumpy masses, or pendulous nodules.

But, after all, the diseased nodules of the serous membranes are not fat, or, at all events, they are not composed of adipose tissue throughout most of their extent. They are not multiple lipomata; but it would be strictly correct to describe them as multiple fibromata, or sarcomata with a deficient blood-supply, or rather as a multiple tumour-formation containing a mixture of those two kinds of tissue, growing in the seats of fat-formation, and assuming the lobulated, or lumpy, or pendulous forms of the sub-serous fat.

I do not think that I have gone beyond the facts in this statement of the naked-eye characters of the primary new growths to which the bovines are so liable, and I cannot help thinking that there must be some connexion between them and vicissitudes in the nutrition of those animals as manifested in that tissue which would be most affected in nutrition, namely, the fat-tissue. The facts may be explained in two ways, both of which may be applicable, although I would regard one of them as more probable than the other. Either the formations on the serous membranes are atrophied or degenerate masses of fat in which the blood-supply has failed to a great extent, or they are radically new growths which have sprung up in the old lines of fat-formation, or where fat may once have been. The description in a veterinary text-book of retrogressive changes in the multiple lipomata of the serous membranes, reads very much like a description of some of the bovine tubercles that we meet with; the oily contents of the fat-cells disappear, the connective tissue hardens and thickens, calcareous matter is deposited, and a mortar-like substance takes the place of what once was fat. But there is another and perhaps better way of accounting for the fact that the morbid growths are found in some of the favourite seats of the internal fat and in its peculiar shapes. It is a well-known zoological characteristic of the bovines that their fat is naturally apt to come and go from time to time, in the wild state, according to the periodicity of the seasons, and in the domesticated state, according to a multitude of artificial practices in the management of dairy and farm stock. Nothing can be more artificial, for example, than the conditions which cows in town dairies are subjected to; the close confinement, the unnatural feeding, and the excessive milking. It is quite conceivable that an animal, under those circumstances, and more especially when it is growing old, would depart from its natural fat-forming habit, and put on, instead, an embryonic kind of tissue, which is neither fat nor anything else of a physiological kind, although it occupies the old seats of adipose tissue, runs into the familiar mould, as it were, and grows to the old pattern.

Whether we take the one explanation or the other, or the two together, there is, I think, a pretty strong chain of evidence that bovine tubercle begins as a disorder of nutrition. It is oftenest acquired by animals that are farthest removed from their natural conditions—by cows imprisoned in town dairies; and the disease that those animals are so peculiarly liable to begins as a kind of multiple morbid growth, which occupies the very seats of the internal fat and runs into its very shapes. Now, the abdominal and thoracic fat is precisely the tissue that might be expected to show the effects of malnutrition in the way of structural changes. The tubercles are simply collections of embryonic tissue in which the formation of bloodvessels has been inadequate, and in which degeneration has inevitably followed; and anyone who has studied the development of fat will readily admit that the same embryonic cells growing in the particular localities might have become fat-cells if the blood-supply had been sufficient.

Whether I have indicated truly or not the circumstances in which we should seek for the beginnings of this peculiar kind of new growth, I am confident, at least, that we must look for these beginnings in some physiological disorder or other within the small group of ruminants, and not elsewhere. Disordered nutrition appears to me to be able to account for this kind of multiple tumour-disease, just as I believe that disordered secretion can account for the



beginnings of cancer. Disordered nutrition shows itself in various ways within the body; but there is only one tissue that it specially affects, and that is the adipose tissue, just as the glandular tissue is the proper seat of secretory disturbances. In the one case as in the other, the disorder of function finds a structural expression; it acquires length, breadth, and thickness; or, in other words, it results in a tumour. The functional disease thus acquires the degree of individuality which may be ascribed to a tumour, and that must be the beginning of its life of semi-independence within the body. In both cases the pre-autonomous stage is a common disorder of structure and function—of secretion in the one case, and of nutrition in the other; and each goes on to acquire the mysterious power of infection. But they become autonomous in different ways, or under different circumstances. I have already spoken briefly of cancerous infectiveness, and I have elsewhere endeavour to trace the connexion between it and the antecedent glandular disturbances. In bovine tubercle, I should ascribe the infectiveness to the *multiplicity* of the primary nodules, and to the fact of their being seated on the serous membranes, which are so fundamental a part of the lymphatic system. Multiple tumours of the serous membranes are favourably situated for infecting the lymphatic glands, and the infection of the lymphatic glands is only the beginning of an autonomous career. Professor Virchow has shown, in his great work on morbid growths, how the lobules of abdominal fat may become multiple stalked lipomata, each lobule becoming a kind of individual tumour, and growing as such; and he adds the following remarkable words: "There is no doubt that this kind of multiplicity does not differ altogether from what we find in malignant tumours or in an infective dyscrasia." And if that can be said of multiple lipomata still retaining the proper structure and nutrition of fat, it can be said, with even greater truth, of those multiple growths of the abdominal and thoracic surfaces which we have good reason for taking to be rather the degenerations or substitutes of the fat.

There is one other point to be noted in connexion with bovine tubercle. It may or may not be primarily due, as I have supposed, to an error of nutrition in the abdominal and thoracic deposits of fat, but its morphological characters are certainly peculiar, and they belong, in a sense, to the bovine organisation. If I may so speak, it has sprung out of bovine soil, and the marks of its bovine origin never quite leave it, even when it is set up in the bodies of animals widely removed from the ruminants. A mere condition or state of the ruminant body can be abstracted, as it were, from all other ruminant conditions, and made to live in another body; and that is an extreme instance of what is meant by the autonomous life of the specific infections, or of the semi-independent existence of the species of disease.

Having presented cancer, and one of the varieties of tubercle, in this light, I shall next inquire whether this formula of an acquired autonomy may not be applied to a third great disease, representative of another class of infections—I mean small-pox. Small-pox may be looked at from more than one point of view without losing sight of its main features. Our great English dermatologist, Willan, looked upon small-pox as a skin disease; but Willan was also one of the first to investigate the history of small-pox epidemics throughout the world, and he was not likely, therefore, to underrate its importance as a pestilence. Hebra also ranks small-pox among the cutaneous disorders, and the authorities of the Allgemeine Krankenhaus at Vienna have given practical effect to Hebra's doctrine so far as to place the small-pox wards under the department for diseases of the skin; and I can testify, from an experience of the Vienna small-pox wards, that the disease does not lose any of its contagious power by being classified among skin diseases. An experience gained under those circumstances is apt to make an impression, and from that time I have never been quite able to think of small-pox except as an ill-smelling condition of the human skin which one person may impart to another. It is a skin disease which has been reproduced with the greatest accuracy and fidelity in millions of copies for hundreds of years, and the extraordinary closeness of the mimicry has given rise to the opinion that the disease is really the uniform effect of some unknown poison. But the anatomical structure and evolution of the pock is too

elaborate to be the simple and direct effect of an extrinsic poison; it is not like a flea-bite, or like the nettle-rash which comes out in some peculiarly constituted persons after eating shell-fish, or, as I have known, even from eating a single wholesome strawberry. The pock is a complicated affair, and there is a history written in it, a history of characters acquired bit by bit, as in the evolution of living things, a history which has been transacted within the body; and the stages of this history are run through with more or less completeness in every case of the communicated disease. The papules had developed fluid in their summits, they had grown in a peculiar way to the breadth, the original centre had become a distinct depression; and, in the course of this evolution, certain partitions had been formed in the interior of the pock. Further, the pock is more deeply rooted in the skin than most skin diseases known to us; for its base goes down to the vascular layer of the corium, and, when it scabs, it leaves a considerable defect of substance (more particularly in those localities such as the face, where the vascular layer of the corium is well developed), a peculiarity among skin diseases which can hardly be matched, unless it be in some of the tropical forms of impetigo. This skin disease is ushered in by much constitutional disturbance or fever; and, as in some other skin diseases which are not contagious, the fever abates when the eruption has come out, and the subsequent constitutional disturbance is exactly in proportion to the number of the pocks.

The remarkable thing is that all this complexity of anatomical structure, of stages of evolution, and of characteristic fever, should have preserved its unity and individuality through so many transmissions, in all sorts and conditions of men, and in all parts of the world. The disease possesses what I would call autonomy in a high degree, and, from that point of view, it becomes a matter of no ordinary interest to inquire into its pre-autonomous history.

Professor Hirsch, in his "Handbook of Geographical and Historical Pathology" (a work which we are soon to have in an English dress), concludes an elaborate review of the historical evidence about small-pox with the opinion that we have to go to tropical countries, to Hindostan and to the interior of Africa, for its original seats, and to go back to a remote antiquity to find the beginnings of it. Lichtenstein, one of the early explorers of Africa from the southern end, found small-pox to be prevalent wherever he penetrated, and he found it among tribes who professed to have got it from nations still farther from the sea. According to Pruner, the disease is peculiarly an African disease. We may take it, therefore, that small-pox was originally a disease of the black skin, and it is in keeping with that historical and geographical induction to find that the black-skinned races are by far the most susceptible of the disease even nowadays, when it is set up only by contagion.

It is impossible to speculate to any purpose on the rise and development of small-pox out of some common and frequent disorder of the black skin under such influences as tropical heat and moisture, or under the peculiar conditions which obtain among the swarming populations of tropical countries. One naturally thinks of a complex form of "febrile lichen," a skin disease which Dr. George Gregory admits that he could not always diagnose from small-pox; and if we imagine a widely prevalent kind of febrile lichen to follow somewhat the same development that Willan describes in a remarkable case of lichen agrius, we should have a not very remote analogy for what I should call the pre-autonomous stage of small-pox, both in the structural characters and in the constitutional fever. We are, at least, justified in thinking of some form of tropical skin-disease, widely spread within a certain zone, very apt to recur in the individual, and with each recurrence to become more inveterate, and to develop a more complex structure. Given a number of people suffering from such a cutaneous disorder at one time, and some great migration or invasion, and we shall probably have the circumstances under which the skin disease would become communicable, would pass by contagion to the skins of those who had never incurred the disease by natural causes, and pass all the more easily to them if they belonged to an entirely different race, or presented the ordinary contrasts of civilisation and barbarism, of white skin and black.



I do not say that it is an easy thing to construct the circumstances under which this disease of the black skin acquired, what I would call, its autonomy. It was probably a gradual process; its semi-independence must have been hardly won and slowly consolidated, until, at length, it was ready to start on its devastating campaigns. Small-pox has been a disease on so stupendous a scale, that it must seem to be mere hardihood to speak of it as a condition of the skin, originally acquired in the tropics, which has been passed on from one body to another. But, even if history and geographical distribution had told us nothing, the loathsomeness, the peculiar odour, and the no less peculiar scars of small-pox, might of themselves suggest another skin than ours; and I have seen too many instances of the minute mimicry that goes with every infection, to feel any surprise that a disease, which is native under a tropical sun, should impress upon its victims in every country something even of the primary ethnological characters.

And now let us compare the autonomous disease, as we know it, with the original skin disease out of which it must have grown. The contagious small-pox is distinguished by what Sir Thomas Watson calls "the very curious fact" that it generally occurs but once in a person's life. "In this," says Watson, "the contagious disease offers a remarkable contrast to inflammations, which, having happened once, are, for that very reason, more apt to happen again; and he goes on to show the impropriety of ranking small-pox under the head of cutaneous diseases; it would "more rightly be called a blood disease." But there need be no antagonism between the view of small-pox as a cutaneous disease, and the view of it as an infection. This formula of an acquired autonomy, and of a pre-autonomous stage, which I have been recommending as a sort of nostrum for our intellectual difficulties, appears to me to be a means of reconciling those antagonistic opinions which have arisen, not so much in connexion with small-pox, as in the controversies about some other infective diseases, which are supposed still to develop *de novo* from time to time. Small-pox, in its pre-autonomous stage, would be precisely that kind of skin disease which, having happened once, is, for that very reason, more apt to happen again; it would recur in the same spots, as in the early stages of leprosy, and it would become more rooted and more inveterate each time it came back. The inveteracy of this morbid condition of the skin, due in part to neglect, would be its first step towards acquiring that remarkable power of semi-independence within the body, which I have been endeavouring to illustrate under the name of autonomy; it is this acquired power that enables it to pass to another person's skin as an individual state of the body, which can be, as it were, abstracted; and its individuality is proved by the best of all tests of what constitutes an individual—the test of parentage; for the skin disease that springs up in the contaminated body is exactly like the skin disease which must have been originally acquired. But the infected or impregnated body runs through all the stages of the malady—papule, vesicle, pustule, scabbing, and scarring—in rapid succession in two or three weeks, and it is thenceforward done with that particular form of skin disease for ever. This autonomous form of the disease is a brief abstract and chronicle of its whole protracted development or evolution; it sums up the past, and just as it sums up the past, so it anticipates the future.

Small-pox appears, then, to be a clear case of a morbid condition of the body—namely, a cutaneous condition—which has been enabled to lead a kind of independent life. But small-pox is one of those diseases that always pass directly from one body to another, and the direct succession of cases does not appear ever to have been broken. There is, however, another large class of infections, corresponding to Pettenkofer's division of the exogenous contagia, which are not only able to subsist for long periods outside the human body, but which even require a certain amount of external putrefaction in order to make them potent. Cholera is one great example of a disease of the exogenous group, and yellow fever is another; and I shall ask your attention for a few minutes to some facts relating to the latter disease; for here, at least, it must seem as if we had got quite away from common disorders of structure or function, and into an absolutely separate region of disease, where the physiological principle does not serve us.

Yellow fever is one of those maladies in which historical

and geographical facts are of even greater importance than microscopic or chemical, and hardly less important than clinical; and, as I have been lately occupied in turning into English the German sentences of Professor Hirsch's treatise on Geographical and Historical Pathology, I have had occasion to reflect upon the more salient facts in the history and geography of yellow fever. The first point that strikes one is, that it appeared in the seventeenth century as a new disease. For more than a century after the Spanish conquest of America, and for many years after the first English and French colonisation in the West, there was no yellow fever, and, when it did come to Guadaloupe and Barbadoes, it was recognised as something quite different from the ever-present malarial fever. The next point is, that there is something quite peculiar in its geographical distribution. At the present day, we are apt to think of yellow fever as the fever of the Gulf of Mexico and Brazil; but it had been the scourge of Philadelphia, and even of New England, for many years before it broke out in New Orleans at all (1796); and its first appearance at Rio was in 1849. In reading Bancroft's treatise on this disease, published in 1811, it is curious to notice how much yellow fever has shifted its ground; it has always remained true to certain shipping places in the West Indies, but the other great centres in Bancroft's time have absolutely ceased to be the seats of yellow fever; and some of the places that are among the worst seats of the fever now are not even mentioned in Bancroft's pages. In fact, it is not latitude and longitude that explains the peculiar distribution of the disease. There is only one thing that covers its history, and its geography and the remarkable changes in its distribution, and that is the slave-trade. Disregarding its occasional and widely ranging excursions, and confining the attention to the localities where it is or has been, at one time or another, endemic or repeatedly epidemic, these are found to be the creeks and wharves and low shipping-quarters of the ports of debarkation of the slave-trade, together with a few much less endemic, but not less significant, spots in Spain and on the West Coast of Africa—the places to which vessels engaged in the contraband slave-trade had gone on their return voyage. The single exception to this curious rule is Peru; but Peru is hardly an exception, when we bear in mind the many points of resemblance between its Coolie trade across the Pacific and the old African slave-trade.

It was an inquiry into the disastrous outbreak at Barcelona in 1821, in which 5000 persons died, that gave the first clue to the connexion between yellow fever and the slave-trade. The circumstances were investigated by Dr. Audouard for the French Government, and the same physician was sent again in 1823 to inquire into a more limited epidemic at a small port in Biscay. The facts were very much the same in the two outbreaks: ship-carpenters, engaged in repairing vessels that had arrived some time before from the West Indies, were seized with a prostrating illness, which they attributed to putrid emanations from the bilge-water, and they became the first victims of an epidemic which proved to be yellow fever. Dr. Audouard found that the vessel which started the infection in the 1823 epidemic was a slaver; and, on recalling the facts of the Barcelona outbreak two years before, he found that the two vessels chiefly concerned in it were also slavers, in proof of which, he said, they might still be seen with the irons for securing the slaves fixed in the planking of their holds. It was ascertained also that one of them had had an extraordinary amount of dysenteric sickness and mortality among her human cargo on the previous voyage. He calculated that about sixty Spanish vessels had been engaged in this contraband trade in 1820, that they had taken out about 15,000 slaves from Africa to the West Indies, and had returned to Spain with merchandise before going down to the African coast for their next cargoes. This was, in fact, the time of the irregular slave-trade, when the vessels were not adapted for it, and the crowding and sickness on board were at their worst; and this period corresponds to the remarkable outburst of yellow fever, both in America and in Spain and on the West Coast of Africa, from about 1790 to 1820.

It is a perfectly well-known fact, admitted equally by Lind and Bancroft, that the slaves on board a slave-ship did not suffer from yellow fever, although they suffered much from dysentery and from what used to be called the "horrors



of the middle passage"; so that a slave-ship would arrive at her destination with no contagious fever on board, but saturated with the filth of her human cargo. The facts discovered by Dr. Audouard in two Spanish outbreaks suggested to him a general theory of yellow fever; it was a peculiar form of typhus, due to the emanations from the putrid dysenteric discharges of the negro, and the fever owed its well-marked specific type to the fact that the matters which excited it could be traced to the negro body. There was something, he said, quite peculiar in the negro constitution, and it was not surprising that the discharges from his sick body should be able, when fermented, to produce in others a typhus fever of a peculiar type.

Dr. Audouard's papers were communicated to the French Royal Academy of Sciences, and accepted for publication. They Academy, however, did not adopt his opinions, and he pointed out, after the manner of academies, that his facts related to only three slave-ships and to only two outbreaks. But the author had shown that a great part of the West Indian trade with Spain was carried on by ships engaged in the contraband slave-trade, and that the same circumstances which led to the epidemics investigated by himself must have arisen often at all the Spanish ports where yellow fever was an almost annual occurrence. Not only so, but the whole history and geography of yellow fever in America was on his side; seaports where cargoes of slaves had been landed year after year had presumably become saturated with the peculiar filth of the trade, and it is just the landing-places and shipping-quarters of those ports that are the foci of infection. In some of them, such as Vera Cruz, the poison seems to have become peculiarly fixed in the soil, so as to defy all attempts at getting rid of it. But in the great cities on the Atlantic seaboard of the United States, the fever was practically eradicated soon after the importation of negroes ceased. During the sixteen years after that date (1808), yellow fever appeared only seven times in the different ports of the Union, whereas in the sixteen years preceding the abolition of the traffic it had broken out fifty-eight times.

In the Spanish seaports also, the great epidemics of yellow fever are an almost forgotten tradition. But in Brazil they are of recent date, the first of them as recently as 1849, and Brazil was then, and had been for some time, the great market for the African slaves, when the ports of other countries except Cuba were closed to them.

A still more unlooked-for confirmation of Dr. Audouard's theory may be discovered in the establishment of yellow fever in the seaports of Peru within quite recent times; the first outbreak having been at Callao and Lima in 1853. An account of it was sent from Lima to the *Edinburgh Medical Journal* by Dr. Archibald Smith, who says: "The first cases of the Lima fever were vulgarly attributed to the excessively crowded shiploads landed at Callao of poor and sickly Chinese, who were ill-fed, ill-clothed, and badly cared for on the voyage from their native country. But," he adds, "I, as a practitioner, could not trace any symptoms of this fever to them." But Dr. Smith's objection to the popular explanation of the yellow fever in Peru is precisely the strongest argument in favour of it: the Chinese, like the negroes, did not suffer from yellow fever, and they are said, indeed, never to take it on shore; but they suffered from those dysenteric and other non-contagious ailments which were the antecedents of yellow fever. The disease, since that time, has appeared at various other ports on the Peruvian coast; its outbreak at one of them, in 1868, was so sudden that the populace attributed it to an earthquake; but a communication sent to the French Foreign Office more reasonably connects it with the Chinese immigration, which, as the report says, has profoundly changed the sanitary condition of the whole Peruvian coast.

But there is another argument for Dr. Audouard's theory, which he makes hardly any use of. It is the immunity of the negro from yellow fever, notwithstanding his great liability to cholera and the common forms of typhus, including ship-typhus. This immunity is perhaps not so striking now, when the negro blood is less pure, but all the earlier authors were much impressed by it. Thus, Doughty, who saw much of yellow fever in Jamaica at the beginning of the century, says: "In the natives of Africa, the constitution appeared to me as secure against yellow fever as a person who has had the small-pox"—and he might have said the yellow fever itself—"is against its recurrence." Fenner, a

more recent authority in New Orleans, says: "It is a well-established fact that there is something in the negro constitution that affords him a protection against the worst effects of yellow fever, but what it is I am unable to say." Mr. Clarke, the author of a paper on the "Topography and Diseases of the Gold Coast," in the first volume of the *Epidemiological Transactions*, says: "I have heard and read of negroes taking yellow fever, but in no case did it happen at Sierra Leone during its prevalence in 1837, 1838, 1839, 1847; nor, so far as I understand, in 1859; and no example of it occurred to any of my medical brethren in the course of their practice." This is certainly a remarkable testimony, when we consider that ninety-nine hundredths of the population of Sierra Leone are negroes. And to show that this is the immunity of negro blood, and not of acclimatisation, I take the most remarkable experience of all, that of the French expedition to Mexico from 1862 to 1866. There was a heavy mortality from yellow fever among the motley gathering of troops at Vera Cruz in the summer of 1866; not only the French soldiers, but Arabs from Algiers, Indians from the interior of Mexico, and Creole troops from the West Indies, were decimated by it; whereas, in a body of 400 negro soldiers from the West Indies, there were only three cases, with one death; and in a black regiment of 500 men raised in the Soudan and Nubia, there was not a single case.

If, then, we put together the facts of this remarkable disease: when we consider that its advent into the world coincided with the rise of the slave-trade; that its habitat is or has been the ports of debarkation of the slave-trade, and those places in Spain and the West Coast of Africa to which slave-ships went on their return voyage; that its exacerbations have coincided with the most lawless period of the negro traffic; that it gained a footing in the ports of Brazil in 1849, when the slave-trade flowed into that channel; and that it has become endemic subsequent to 1853 on the Pacific coast of South America, in those ports of Peru which were the seat of an infamous Coolie traffic—we cannot but see in all this concurrence of testimony a proof that Dr. Audouard was right in describing yellow fever as a peculiar form of typhus, originating at all its endemic centres in the filth of slave-ships, just as he showed that it had so originated, as a matter of fact, in two of the Spanish outbreaks. But if that evidence should not be enough, we have only to add the fact that the negro cannot take the disease, although it rages most in the very quarters where negroes live. The yellow fever still lurks about the wharves and shipping quarters of towns where cargoes of slaves used to be landed; and every few years, when the weather is at the hottest, it rises into a pestilence, as if it were the ghost of the slave-trade walking. But it passes by the negro, as if it recognised the ties of blood; and I want no other fact than that to prove that even this infection, belonging to the exogenous group, is but one step removed from perturbations of the normal life, and that it carries with it the indelible stain of its origin.

The connexion between yellow fever and the dysenteric and other discharges of the negro body, is only a part of that general connexion between dysentery and typhus which has often been noticed in wars and famines. It formed the subject of a debate, in 1861, before the Epidemiological Society, in which the late Dr. Murchison gave an outline of the argument that he afterwards maintained with so much learning and research in his treatise on Continued Fevers. The celebrated cases of gaol-fever, in which prisoners brought up at the assizes gave typhus to the judges, and counsel, and jury, are full of pathological interest; and it may be well, at the present day, to recall the fact, which arrested the attention of Lord Bacon, that the prisoners were not suffering from typhus themselves. But we need not go farther back than twenty years ago, nor farther away than the city of Liverpool, for proofs of the *de novo* origin of a specific fever; no more striking proof was ever given of the genesis of typhus out of dysenteric and other filth than in the case of the Egyptian frigate which came from Alexandria to the Mersey in 1862 to be refitted. There were 400 Arabs on board, who had suffered a good deal from diarrhoea and dysentery; they had met with rough weather all the way from Alexandria, and the hatches had been battened down for two or three weeks continuously. When the ship arrived in the Mersey, the 'tween decks was in a disgusting state of filth, and the pilot who took the vessel up the river remarked



to his wife when he went home that that ship would be heard of again. He was himself the first victim, for he was seized with a fatal form of hæmorrhagic typhus about a week afterwards. More than one hundred of the crew were on the sick-list, chiefly from dysentery, but it was carefully ascertained that none of the cases were typhus. Most of the Arabs went to a public bath in their filthy state, and in a few days typhus broke out among the bath attendants. Some of the crew were admitted into the Southern Hospital for various non-contagious disorders, and there also typhus broke out.

All the facts of this most interesting case were communicated to the Epidemiological Society by the late Dr. Duncan, medical officer of health. It was Dr. Duncan's opinion, and also Dr. Cameron's, the present President of the Medical Section, that the outbreak was clearly traceable to the Egyptian ship and her filthy crew, but that it was not traceable to pre-existing cases of typhus, whether on the voyage, or in Alexandria before sailing.

There is one other class of cases which I shall just mention—the cases in which the mere contact of human beings in an average state of health and cleanliness sets up various epidemic disorders among the inhabitants of remote islands, where strangers rarely come. Mr. Darwin, in his narrative of the voyage of the *Beagle*, quotes instances of this in the South Seas, on the excellent authority of Williams, the missionary; and it is to typhus that Mr. Darwin compares these cases. "It would almost appear," he says, "as if the effluvium of one set of men shut up some time together was poisonous when inhaled by others, and possibly more so if the men be of different races."

I shall take one other illustration of the doctrine of acquired autonomy, and I shall take both the facts and the doctrine from Sir Thomas Watson. The English troops that served in Egypt in 1801, under Sir Ralph Abercromby, suffered much from the ophthalmia of that country, which is always brought on by exposure to cold after being heated, by the glare of the white and parched ground, by the dust in the air, and such-like causes peculiar to the climate of Lower Egypt. No one, in those days, thought that Egyptian ophthalmia was a specific infection. But some of the British soldiers returned with it uncured, and it soon became contagious in the home garrisons; and it was found, after a lapse of eight or nine years, that there were no fewer than 2317 soldiers pensioners upon the public bounty from blindness in consequence of ophthalmia. Those who knew the disease as it occurs in Egypt denied that it was contagious, and those who saw it in England were as positive that it was contagious. Watson reconciles the two views. He says that "there is nothing absurd nor unlikely in the supposition that diseases may first arise from some other source, and then become capable of spreading by contagion"; and he says elsewhere: "My own creed upon the matter is this—that the disease may, and often does, arise independently of contagion, from the agency of ordinary causes of inflammation; and that, having so originated, it acquires contagious properties, which develop themselves only under circumstances that favour the propagation of most of the contagious complaints." A parallel to the Egyptian ophthalmia of 1801 may be found in certain cases of syphilis described by Baron Larrey in his surgical history of the same campaign. The Alexandrian syphilis, which the French troops contracted freely, was peculiarly free from "grave symptoms" and "easily cured"; but it proved very "obstinate and difficult to destroy" in those who brought it back with them to France.

In choosing to speak of infective diseases from a standpoint which is not the dominant standpoint of the time, I fear that I have laid myself open to the charge of taking advantage of a public opportunity in order to get a hearing for a somewhat peculiar view; but the words which I have just quoted from Sir Thomas Watson will show that this doctrine of common disorders acquiring specific power has not been absent from the thoughts of those who lived in the philosophical period of medicine. Nothing would be more agreeable than to adduce other instances of the same kind from the history of medicine, and I especially regret that time will not permit me to say something of this principle of autonomy, as it was held by the thoughtful and talented writers who were known in Germany fifty years ago as the natural history school. But in anything that concerns the natural history of disease, we may go direct to

Sydenham, who was the author of the phrase, and in Sydenham we shall find a very explicit statement of the doctrine of an acquired autonomy, and a pre-autonomous stage in the specific diseases. Sydenham uses the language of the humoral pathology of his time, but that matters little. The humours, he says, may, under certain circumstances, be raised to the dignity of a substantial form or to a species, a specific disease being one that takes its rise in this specific exaltation or specification of some juice of the body; and he expressly mentions the antecedent condition of the humour before it had put on its species—*antequam hanc induerat speciem*. If I have preferred to speak of the acquired autonomy of a disease, and of its pre-autonomous stage, I mean no more than Sydenham means here, as the context of the passage would show.

Sydenham compares these species of disease to the species of animals and plants, only that their life is an integral part of the general life of the body; and as we have an Origin of Species for animals and plants, it is natural to think of the origin of disease species. But there is a difficulty in the latter which the Darwinian problem is free from. In the origin of species, we are dealing with individual things, each with its well-rounded, independent life; but where is the individual life in disease? In my humble opinion, the germ will not serve our purpose, for, according to the great Darwinian analogy, the germ is always a part of the individual, and always presupposes the individual. The germ, or the sperm, is no doubt a peculiarly important part, and it is charged with the most marvellous representative powers; but it is always representative of the individual, and it derives its powers from the individual. Such, at least, is our only analogy.

If, then, we must have the individual to start with, before we can apply the "origin of species" to disease, we come back to the old question, how a morbid state of the body can become a semi-independent thing, how it can exist, not in absolute independence of the body, but autonomous within it, an *imperium in imperio*. This is the perplexing question which I stated at the outset with reference to cancer, a disease which in the popular estimation is almost synonymous with a semi-independent life, and I quoted the words of Paracelsus: "In such a disease, a man is himself and another; he has two bodies at one time, enclosed the one in the other, and yet he is one man." I have spoken to several metaphysical friends of the difficulty of conceiving how a mere state of the body, a complex or integrated morbid state, can become an individual existence with the power of propagating itself; but I cannot say that I have got anything satisfactory out of them. We shall probably have to settle this question within our own science as a part of the subject-matter of pathology. Pathology is indeed varied enough in its subject-matter. It studies disease on many sides, as the founder of this Association planned that it should be studied—the side of its anatomy and its physiology, of its geography and its ethnology, of its history and its natural history. Its aspects are as various and attractive as the fruit trees in the Mohammedan paradise. But there is nothing in all this boundless field of inquiry that is more likely to occupy the mind of the profession for years to come, as it has occupied it in times past, than the difficulty for conceiving how a state or condition of the body can become a species of disease.

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GENERAL ECZEMA.—Treating of a case of general eczema covering the whole body of a child, Dr. Draper, of the New York Hospital, stated that he had found the following to be a good local application, being both a protective and stimulant:—℞. Zinc oxyd., olei juniper, adipis, aa ʒj. This was spread over the whole surface, and when the epidermis had been removed a layer of lint was put over the part, and the ointment spread over this. Opium was also used for the relief of the itching and sleeplessness. "In any disease where we have itching and wakefulness, there is a loss of nervous tone from deprivation of rest, which aggravates the disease. Good rest must therefore be procured first. I hope, gentlemen, that the day is not far distant when some of you will distinguish yourselves by curing a case of general eczema; for curing this disease will give you more reputation than almost any other achievement. And it can be cured by patient and long-continued efforts."—*Phil. Med. Reporter*, July 14.



## AN ADDRESS

DELIVERED AT THE OPENING OF

## THE SECTION OF OBSTETRIC MEDICINE,

*At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.*

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## THE QUESTION OF FOOD IN OBSTETRIC AND GYNÆCOLOGICAL PRACTICE.

I TAKE advantage of this opportunity to present to you a few observations on a matter which has for some years deeply interested me, and concerning which I have arrived at conclusions which, to me at all events, appear to possess a certain value, viz., The Question of Food in Obstetric and Gynæcological Practice.

Now, it may appear unnecessary at this period of medical history, and in the present advanced state, as it is considered to be, of medical knowledge, to insist on the importance of food in maintaining a healthy activity of the vital processes. But a lengthened experience has convinced me that the public at large have no practical knowledge of this, and that the most disastrous effects result in multitudes of cases from this ignorance of simple physiological laws.

Engaged as I have been more particularly in obstetric and gynæcological practice, the non-observance of these important physiological laws in connexion with the occurrence of diseases of the uterus, disturbances of the functions of the uterus and ovaries, and the diseases incidental to childbed, has forced itself on my notice. It is pretty certain that the generalisation which applies to these classes of disease extends, or would be found to extend, to diseases of other organs of the body, for it is the merit of a true generalisation that it is of wide application.

There are certain terms in general use by the public and by the profession which are often employed in a vague, unmeaning, and indefinite manner—such as “weakness,” “delicacy,” etc.—whereby it is intended to designate a condition very frequently met with, but the essential nature of which is, as my experience has shown me, very imperfectly apprehended. It is well recognised that this weakness, delicacy, or what not, is very commonly observed not only in young women coming under the notice of the gynæcologist, but also in women who have arrived at adult age, and suffering from disorders in connexion with pregnancy, parturition, and childbed. My observation has in a particular degree been attracted to the presence of this condition. I have taken every opportunity in my power for analysing its nature and ascertaining its essential cause. One conclusion arrived at is, that this general weakness is very far more common than is supposed as an antecedent in cases coming under our notice as gynæcologists, and it may even be said that it is almost invariably present in a marked form in such cases. Another conclusion is, that the “weakness” is associated with and caused by a long-continued inadequate dietary, and that it is essentially what may be termed “chronic starvation.” The rational view of the matter is, that this “weakness” is, in the very large majority of cases, preventable; that it should be regarded as the first stage of a serious possible disease; that it is mostly the result of chronic starvation; that it is curable, to a greater or less degree, in most cases; and that it is of the highest importance that it should be formally and carefully treated, as other diseases are, instead of being allowed to smoulder on until the constitution is thoroughly undermined, or until some ailment distinctly classified in our nosology makes its appearance.

It is a remarkable circumstance that so little as yet seems to have been done in the investigation of the effects of an insufficient dietary, looking at it from the quantitative point of view, although the effects of complete deprivation of food are well known. Thus, in the last edition of Parkes's well-known work on Hygiene, it is stated that little is known on the subject of the effects of insufficiency of food; and the space devoted to the consideration of this matter is less than one page.

It is curious that the physiological law and the popular impression (shall I say, in too many instances, the “medical”

impression) are found widely different. Physiology teaches the necessity for a continuous supply of a certain quantity of food. The popular impression is, that some people do not require so much food as others; and, consequently, important quantitative diminution in the supply often escapes attention. I must confess that, not very many years ago, I shared in the popular impression. What induced me to form the opposite conclusion was that, in the first place, I was struck with the fact that, in almost every case coming under my notice, a state of what was termed “weakness” by the patient had been notably present; and, secondly, that, on inquiry, this weakness was almost always found to be associated with a notably deficient dietary. For the last six or seven years I have tested the accuracy and applicability of these generalisations, by carefully inquiring into the past history of patients—mostly suffering from some uterine or ovarian disease, or some affection incidental to childbed; and these conclusions have stood the test of this long-extended inquiry. I have to state the important conclusion, that a continuous insufficiency of food, or what may be termed a “chronic starvation,” more or less intense in different cases, was found to have existed almost universally. Consequently, I have naturally been led to consider chronic starvation as a most important factor in disease, certainly in those classes of cases which have come more particularly under my notice.

A few typical instances were given, as—

A young married lady, aged twenty-four, consulted me for a severe retroflexion of the uterus, which appeared to have set in shortly after her first labour, some months previously. She underwent treatment for this affection; and, in the course of it, one day her mother came with her, and inquired of me why it was that her daughter had become liable to this affection. I replied that, in all probability, it was due to a previous condition of weakness, and insufficiency of meat as an article of food. “Yes,” said the patient, “that is very likely true; for when I married, and could please myself, being very fond of sweets, I took little ordinary food during the first year, but lived chiefly on sweets, and ate little or no meat at all.”

A young lady, aged eighteen, suffered much from menorrhagia, and her condition became finally one of complete inability for exertion. It was ascertained that this patient had lived regularly as regards her diet, but that her diet consisted principally of bread and puddings; and, having a marked aversion to meat, she had taken very little for two or three years previously; and it is the fact that I was afterwards consulted by two of her sisters presenting uterine symptoms, and with a corresponding history as regards the previous dietary.

I have been much interested in observing, also, the effects of previous insufficiency of food in apparently predisposing patients to attacks of puerperal septicæmia. In the cases of this disease which I have seen in consultation, I hardly recollect having seen a case where the patient so affected had, during the pregnancy, lived fairly well; and the worst cases have been those in which the patients fed badly and insufficiently during the pregnancy, and had been fed on a gruel diet after the labour was over. In cases where severe sickness during the early part of the pregnancy prevents the proper nutrition of the patient, the system is liable to become much impoverished, and an insufficient dietary may be, and often is, the preliminary to a dangerous childbed.

With very few exceptions, and those exceptions only tending to prove the rule, it is, I hold, impossible to find patients suffering from chronic uterine disease, who have not undergone, at some former period, what may be termed a starvation process; and careful inquiry generally elicits the fact that the quantitative deficiency in the diet extended over a considerable period. In many cases, the patients are found to be still under the influence of a deficiency in this direction, and to be “eating,” as the expression is, “next to nothing.”

The period of life during which quantitative deficiencies in the dietary are most common, is the two or three years immediately following the arrival of puberty. The girl is at school probably, her appetite is bad, or the food is not palatable, or is deficient in important particulars, or, as I have found in some cases, she eats little in order to keep thin; the strength fails, the appetite diminishes, and a habit of taking little is formed—particularly little animal food is taken. Three or four years of the most critical stages of life



are thus passed—a time at which the body should be growing fast, and to maintain this growth in adequate vigour, large supplies of nutritious material are required; instead of which, the supply is far below the normal standard. The result is a general impairment of vigour and of vital action. On the generative organs, the effect is, as I have observed in numbers of cases, most decidedly injurious; and the effect, in most instances, is of this kind, that the tissues of the uterus lose their normal firm, healthy consistence.

It is generally admitted by authorities on the subject of diet that nitrogen is the most essential of all foods, and that a certain amount—about three hundred grains—should be taken daily. In cases of chronic insufficiency of food, it appears that the diminution in quantity of food most frequently affects the nitrogen. Meat is the article of diet which, as a rule, is the source of the greater part of the needed amount of nitrogen, for, in England, at all events, meat is the popular article of food; and, in cases of chronic starvation, we mostly find that the quantity of meat taken is exceedingly small. “Never a meat-eater,” “Do not like meat,” “Have got out of the habit of taking meat”—such are common replies made to interrogations of patients under these circumstances.

No doubt, meat can be replaced dietetically by other foods containing nitrogen in sufficient quantity; but practically, owing to the habits of families, good substitutes for meat are not easy to find. The weakly one of the family is too often allowed to take her own course, and, if she does not take meat, often gets nothing sufficiently nitrogenous to answer the same purpose. Of all the nitrogenous foods, meat is admitted by all authorities to be the most easily digested, most easily assimilable, and most rapid in its nutritive action. Milk is, of course, a most valuable alternative food; but, in these cases of absence of sufficient meat, we do not find it has ever been taken in any such quantity as to make up for the deficiency; and the quantity of bread consumed, even supposing it to be pure and of good quality, is in such cases entirely inadequate to supply the required quantity of nitrogen. I need not allude to the effect of deficiency in the other constituents of the diet. It is sufficient for my present purpose to show that the nitrogenous elements, while they are of all the most important, are those which are markedly absent in the cases now under consideration.

There are few observations bearing on the subject now under discussion which can be quoted from published works. Professor Voit (“*Untersuchung der Kost*,” Munich, 1877) mentions an interesting fact. In a public institution, a home for girls, on which, he reports, the diet included an average quantity of 170 grains of nitrogen only, the girls appeared healthy, but their muscles were found to be weak, and menstruation was found to be delayed in many cases until the sixteenth or seventeenth year.

Parkes states that when the nitrogen is reduced to from 70 to 100 grains daily, the body gradually lessens in activity, and passes into a more or less adynamic condition, which predisposes to the attacks of all the specific diseases, especially malarious affections, typhus, and pneumonia, etc.

It must be assumed from what is known that if the minimum quantity of nitrogen—which, for the sake of argument, we may put as low as 250 grains in the case of a young woman—be not given, a condition of weakness will soon be induced, and with greater or less rapidity, according as the quantity of nitrogen falls much or little below this 250 grains per diem. Thus it is easy to understand why, in a year or two, with an average daily consumption of only 100 grains of nitrogen, for instance, important modifications of the nutritive processes are effected, whereby there is produced a direct predisposition to disease.

It is now some sixteen years ago since I first publicly discoursed on the importance of nutrition in the treatment of disease. I have made it the basis of my practice for some years past; and four years ago I described the condition to which I have now again referred as “chronic starvation.” In the United States, Dr. Weir Mitchell has employed a system of rapid feeding, assisted by massage and electricity, for the cure of weakly, nervous sufferers—a system which has been found most successful; and Dr. Playfair has done good service in introducing Dr. Weir Mitchell’s method into this country. The method in question is essentially a rapidly acting means of introducing nutritive material into the system, and it is dependent for its success on the fact that

the principle of the curative influence and action of food adequately recognised.

The conclusion which is obviously suggested by the foregoing considerations, is the necessity for a greater attention to the question of diet, in the bringing up of families, than appears at present to be given to it. We all know that health and a good appetite usually go together. But it seems to be too frequently the case that, when the appetite is absent, such absence is taken as a matter of course, and receives no notice. It results, from what has been stated, that absence of appetite may lead to most serious results. It is not immediately dangerous, but it is the first step possibly in the downward course. A continuously bad appetite constitutes a grave condition, and should be seriously regarded.

If it be a rigorously proved fact, that the human body is dependent for its existence, in a state of vigour, on an adequate and regular supply of food, it behoves us to take all possible opportunities of enforcing this great principle; and in making it known as a great and universally applicable measure and precaution in the prevention of disease.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(Continued from page 91.)

### MALARIAL CACHEXIA—Continued.

*Treatment of Splenic Disease.*—If there be great pain and tenderness, evidence of splenic peritonitis, we apply sinapisms freely, and keep the bowels gently open, guarding quinine with ipecacuanha, and always bearing in mind that *to relieve spleen we must remove fever*; and that, *as long as the spleen remains unaffected by treatment, fever is liable to recur, and vice versâ*. The use of frequent doses of purgative medicine was a leading feature in the old showy heroic practice of physic in the East. A course of treatment which caused daily shrinking of the mass recommended itself to everyone. When a patient with recent splenic enlargement happens to get an attack of diarrhoea, this result is often strikingly remarkable.

Considering that Twining points out that in splenic disease “intractable diarrhoea appears to be the most common precursor of death in Bengal,” it is strange that purgative spleen mixtures held their ground for some twenty-five years longer, well into my own time—nay, even up to the present day. Knowing that, in these cases, it is self-evidently our business to nourish and strengthen the patient, and to protect him from all causes of bowel irritation, I always eschewed these evacuant “spleen mixtures,” giving plenty of quinine and iron, and the best food, maintaining gentle, steady pressure by a broad flannel bandage, and frequently employing sinapisms, and, where the case was very obstinate, the galvanic current. Here the great probability that antiscorbutic treatment is needful must never be overlooked.

Soon after my retirement, a few years ago, I was requested by an old professional brother to see a civil officer, a relative of his, who had returned from the North-Western Provinces of India in a state of splenic cachexia. He had contracted fever and spleen while engaged in his favourite amusement, search for wild fowl—he being an ornithologist, and one of a class, in all times numerous in India, who, not satisfied to wait until fever comes to them, spend much of their leisure in deadly marshes and jungles practically in search for it. I found a middle-aged man, much anæmiated, with a somewhat contracted liver, a *splen ingens*, and a moderate amount of ascites. He had more than once vomited a large quantity of blood. I was told that his urine was albuminous; but either this was a mistake or the condition was transient. I therefore said that we could not use diuretics against the dropsy. He had not long since suffered from dysentery. Hence I forbade the use of strong purgatives, knowing how extremely liable these patients are to fatal intestinal flux. Here was what I have been in the habit of calling a “constitutional fix.” I, however, said that I thought much could be effected by employing moderate but sustained



counter-irritation over the spleen and liver, by bandaging the abdomen, by maintaining normal cutaneous action, and especially by the steady use of quinine. I, however, found everyone's hand against me. "Remove the dropsical effusion by cathartics," said a young Indian surgeon; and an old and great London physician (since deceased), who had served for a short time in India, entirely agreed with him. They were clearly of the opinion (which has a very restricted validity in English cases) that drastics are effectual agents in abdominal dropsy,—whereas the axiom, *drastics are deadly in Indian dropsies, which, whether we use purgatives or not, commonly terminate by intestinal flux*, is the outcome of my experience. The patient also, oppressed by a sense of abdominal weight, craved for strong purgatives. I and my opinions were, consequently, set aside. I must admit that, as I was informed after his death, he seems to have borne a system of drainage by purgation longer and better than I expected. He lived for many months, being apparently a man of strong constitution; but I believe that he would have recovered had he followed my plan, indicated above, to which, had I found the kidneys healthy, I should have added the use of very moderate diuresis, and a course of ipecacuanha in small doses directed to the liver, the condition of which was, doubtless, one of the causes of the ascites.

The local inunction of an ointment of the biniodide of mercury has the high recommendation of excellent authorities. I may have given it an insufficient trial. The ointment was rubbed over the whole surface corresponding with the enlarged organ, and the native patient was directed to lie with the abdomen exposed to the sun. The pain was so great, and the raw surface left so extensive, that I abandoned the treatment after having employed it for a short time in a few cases. Dr. Francis Day has seen it salivate in Elephantiasis. Long before I went to India, the internal use of mercury in cases of spleen was reprobated by Twining in European practice—unhappily not in that of the native Kobirajes. It produces the most terrible salivation, and often cancrum oris. Those who are the subjects of malarial cachexia are very liable to be salivated by small doses of mercury. When I was inexperienced in the country, I prescribed a grain or two of calomel, in a purgative dose, to a high native official, of unhealthy appearance, who complained of slight hepatic disorder. Severe salivation, promptly checked, and a strong self-inculcated lesson to the prescriber, were the results.

Early in 1852 a middle-aged East Indian, stationed in a very malarious spot near Chittagong, and who had several times been under my care for obstinate attacks of intermittent fever, resulting in very considerable enlargement and induration of the spleen, was attacked with epidemic cholera. He was actively treated with mercury by a native doctor. He recovered, but with fearful salivation. I found him greatly reduced, and perfectly blanched by profuse and constant hæmorrhage from the gums, which were sloughing extensively, and exhaling an insupportable fœtor. Every styptic known to the native doctor had been employed in vain. I prescribed an iodine gargle, with nourishing diet and port wine. The hæmorrhage was almost immediately arrested, and recovery was speedy, and as complete as could be expected in one who had suffered so long from malarious influence. It did not appear that the teeth were at all injured.

I had great success in the use of a wash of from two to five drachms of compound tincture of iodine to eight ounces of water, both as a prophylactic and as a cure, in mercurial salivation. Just as the fame of mercury was expiring in India I published the result.(a)

Early in 1854, at Howrah, I was called to see a poor European woman, perhaps not of pure blood, who had been attacked with cholera during the preceding night. I had before attended her for hepatic congestion supervening upon chronic dysentery; and she had, for a considerable time previously, suffered from enlargement of the spleen. I found her much collapsed, and the spleen could be felt for a hand's breadth below the ribs. Calomel was then the remedy for cholera, and it certainly appeared to have much to recommend it. Five or six pills containing calomel had already been given by Mr. Burgess. I recommended that, notwithstanding the presence of splenic disease, a grain of calomel should be continued every half-hour. Altogether, about

twenty grains were given. The result was favourable; but, although a gargle containing three drachms of the tincture of iodine to eight ounces of water was very early employed, moderate salivation set in. The tincture was afterwards increased to five drachms; the mouth remained slightly sore for about a week: at the end of that period the spleen had become reduced to about one-half of its former size, and she expressed herself as feeling better than she had been for a considerable time previous to the attack. I carefully examined the urine, but could not succeed in detecting the presence of iodine.

Some idea of the prevalence of splenic enlargement among the native poor in the neighbourhood of Calcutta may be formed by driving out upon the main roads in the early morning. Crowds of natives, wearing only the dhotee around their loins, come in tottering under enormous basketsful of vegetables carried on their heads, their spindle shanks bending æsthetically in all but the right directions. They are active, but generally emaciated, and nearly every one has his epigastrium and his left hypochondrium thickly beset with flat, shiny cicatrices, each of the diameter of a half-crown. These are consequent upon deep eschars produced by the application, generally in childhood, of a hot *gool*, a round mass, prepared from charcoal, by which the tobacco is kept alight in hookahs. Certainly this formidable remedy effects many cures. How many deaths it causes, is only to be judged of by the not infrequent occurrence of cases like one which was admitted to my ward shortly before I left India. A poor moribund native boy, in extreme splenic cachexia, with a hole completely through the abdominal parietes, caused by sloughing following the application of a *gool*. In like manner, in English practice, blistering over the spleen was often useful, but was found to be very liable to cause sloughing. The natives, considering that a demon has taken up its abode in the spleen, endeavour to kill the intruder by a rude mode of acupuncture, the introduction of iron skewers—H. H. Wilson said, red-hot. I recollect that an ancient rhinoceros, at Barrackpore, was in considerable repute among the natives, who bought and drank his urine as a spleen-cure.

In Calcutta the Kobirajes frequently give strong sulphuric acid as a cure for spleen. The acid used is generally impure, but it chars whatever it touches. I had four cases at different times. In one, a man took about half a drachm of the plain acid on his tongue. His fauces were whitened. This quantity of fluid, when swallowed, scarcely reaches the stomach. He remained in the hospital for a few days without any bad symptom. More usually, the acid is enclosed in a sweetmeat, capsule-like, and so swallowed. A mother and daughter, with spleen, who had been thus treated, were under my care. They were nourished, for about six weeks, wholly by enemata. The daughter, but for her cachectic state, might apparently have recovered. In the mother, the corrosive had evidently been propelled by the stomach's action against the pylorus, which was so extremely contracted by firm and even cicatrization as scarcely to allow the passage of a goose-quill.

When a well-to-do European becomes the subject of splenic enlargement he generally comes to Europe. In some cases the enlargement, although considerable and very obstinate, refusing to subside under any treatment, appears to give little or no trouble. Some months ago I watched a brother officer on his way down Regent-street, thinking that England did not contain a more healthy-looking, active, red-blooded man of sixty or upwards. Being an ardent sportsman, he got a huge hard spleen in the jungles of Balasore. This, to my knowledge, remained unreduced for at least twelve years of efficient service in India.(b)

Of late years, removal of enlarged spleens in cases of leucæmia, etc., has been recommended and practised. Twenty-nine years ago I published my opinion ("Medical Jurisprudence for India," page 462), that surgeons should be prepared to perform this operation, which I had practised upon the dead body, in traumatic cases; but, even with the record of Credé's and Franzolini's apparently successful cases before us, I am not convinced that we are justified in removing the spleen in any condition of disease.

(To be continued.)

(a) *Indian Annals of Medical Science*, No. 2 for 1854, page 604.

(b) Valuable papers on Splenic Disease in India, by Twining and H. H. Wilson, will be found in *Bengal Med. and Phys. Trans.*, vol. iii.; and by J. O. Voigt, *Ind. Jour. of Med. and Phys. Sc.* for 1836, page 569.



## ON FEEDING BY THE VEINS AND ON INTRAPERITONEAL INJECTION IN THE COLLAPSE OF CHOLERA.

By BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(Continued from page 125.)

THE process of injecting warm saline solutions into the veins during the collapse of cholera cannot be expected to prove of more than temporary service. But the passing effects are of a kind never to be forgotten by those who have once seen them. They indicate clearly that the plan is important in principle, faulty in detail. If a person apparently dead from the collapse can be raised back to consciousness and to other signs of renewed life, why should not the re-animation be sustained?

The general impression as to the cause of failure has been that the injected fluid is thrown—if I may use such an expression—into a leaking vessel. The fluid fulfils certain purposes of life for a short time: it supplies warmth; it dilutes the condensed blood; it enables the blood to course more freely through the vessels: and upon these changes the phenomena of reanimation are presented. But, as the temporary recovery from the collapse becomes developed, so, following upon it, the symptoms and cause of collapse recur. In other words, with the recovery there is return of the profuse discharge from the alimentary canal. In Mr. Ansell's case we had no doubt at all that during the last collapse which passed into death we could have brought back a short flickering of life, and as the tube for injecting was still tied in the vein we were much tempted to do it. We were stopped by the feeling that it were both useless and cruel to wake up the practically dead body to momentary existence, and permit it, with pain and fear, to die again. So we withheld our art because it was like a broken reed.

It is worthy of notice that in almost all—according to my own observation, in all—cases of collapse the discharges from the alimentary canal cease some time before death; and from this calm I have two or three times seen an altogether unexpected recovery,—patients who have been left as hopeless making slow but safe return to health. The fact here named has strongly impressed many of our best observers, and has led some of them to feel that, taking it all in all, a patient in the last stages of collapse may have better chances of recovery by being left to what seems his fate than by being subjected to a doubtful line of restorative treatment.

For my own part I agree with the view thus expressed so long as the treatment remains doubtful. The question we have to solve is, Can the doubtful be made the certain or more certain?

In studying this question, the fact of the calm which accompanies the approach to death, and of the occasional recovery under such condition, should be added to the facts previously stated in reference to the action of warm saline solutions injected into the veins. The one series of fact throws light upon the other.

The cessation of the drain from the alimentary surface is due to the state of the tissues and of the blood of the affected. The blood extremely condensed, and the tissues deprived of water, the discharge ceases by necessity. Then the condensed blood, if it can circulate at all, greedily reabsorbs water, and gaining, very slowly, more volume, restores, also very slowly, the vital functions, leaving the alimentary canal free from pressure of fluid, and in a state of rest, favourable to recovery. When, in the stage of collapse, we inject a warm saline solution, we very quickly revivify the heart by the warmth, we dilute the condensed blood, we increase the volume of blood, and we put direct pressure immediately upon the alimentary surface; and, thereupon, we reproduce the discharge.

It is like producing a secondary hæmorrhage.

There is an experimental fact which I once before published in this journal, and which bears directly on the point now in hand. I showed that if we take an animal that is just dead from chloroform, and inject warm watery solutions into its circulation by the aorta, the abdominal viscera, as

the parts the least resistant, are the parts which receive nearly the whole of the injection, the intestines alone receiving more than half the weight of the fluid. So when we inject the veins in cholera, if the fluid be carried over the lungs to the left heart, it is injected by the left heart mainly into the intestinal surfaces, from whence, in cholera, it finds instant escape from the body.

The two sets of facts—the one of occasional slow spontaneous recovery, the other of temporary rapid reanimation under injection of saline solutions—throw light, I repeat, on each other. They indicate too, as it appears to my mind, not that we should throw up the process of injection, in despair, as a remedy worse than the disease, but that we should gather from what we have observed the lesson that injection by the veins must no longer be a process of forcing so much fluid direct into what is practically a bleeding body, but that it must be performed as a process of feeding—a slow process in respect to operation; a sustaining process in respect to supply of fluid.

Our problem is to find a fluid which, being gradually and steadily infused, will just keep the animal fire alive while time is given for the alimentary affection, whatever the nature of it may be, to run its course and cease—a result which is all but certain in the majority of cases when time is obtained.

What shall the fluid be?

*Injection of Blood.*—The mind first refers to blood as the fluid which of all fluids would answer the purpose. The objections to it are too many to permit of its recommendation as a practical method.

In the first place, during the existence of an epidemic people are so panic-stricken the physician can never depend on supplies of blood from the unaffected. In the next place, it is not by the injection of a large quantity of blood at one time that the service which is required can be insured. In the third place, blood in its total is not the fluid that is wanted. If, while being injected, the blood coagulate ever so slightly, if it form ever so small a clot, it sets up the risk of causing a general coagulation in the blood, already in trembling equilibrium, of the patient. Again, in the blood remaining in the body of the patient, there is still the corpuscular material and the fibrinous, so that more corpuscle and more fibrine are not wanted, but a fluid that will gradually dilute, and restore, and utilise what remains in the vessels. Could we by some excellent device separate the serum of blood flowing from the vein of a healthy person, and slowly infuse the serum only, we might expect the best results. That would be a scientific procedure. Could we add chyle to the serum the procedure would be theoretically perfect. We should then, as we injected, be giving the collapsed man an external alimentary system, and should be putting him into a condition in which it would be difficult for him to die. He has, for the time, lost his alimentary system. We have lent him one.

(To be continued.)

**THE PERCHLORIDE OF IRON IN SKIN DISEASES.**—Dr. Casarini, in the *Spallanzani*, states that the external employment of perchloride of iron is highly useful in many chronic diseases of the skin, employed as an ointment consisting of one, two, or three parts to thirty of lard, or as a lotion mixed with two or three parts of water. The diseases in which it is most efficacious are subacute and chronic psoriasis, eczematous lichen, and eczema—after all acute symptoms have subsided. From the cases he has employed it in he draws these conclusions:—1. The perchloride is a highly efficacious remedy in the treatment of simple and hæmorrhagic purpura. 2. It is very useful in the chloro-anæmic condition which often accompanies certain skin diseases, such as rupia, ecthyma, and impetigo. 3. It is employed externally with promptly efficacious results for ulcers dependent on scrofula and constitutional syphilis. 4. Used as an ointment it modifies in a most efficacious manner the squamous skin diseases, and especially psoriasis. —*Presse Méd. Belge*, July 29.

**OBSTINATE HICCUGH.**—Dr. Martin Burke reports in the *New York Med. Record*, June 30, two cases of very obstinate hiccough, in which, after various remedies had been tried in vain, the hiccough was arrested by firm compression of the heaving ribs made by means of the hands.



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Medical Times and Gazette.

SATURDAY, AUGUST 11, 1883.

THE position of an orator chosen and appointed to discourse to a well-disposed audience upon a subject which he may fairly call his own, is, in many respects, an enviable one: enviable, in the first instance, as indicating eminence amongst his fellows, but still more enviable in the opportunity which it brings to him of presenting in the most favourable light, and without fear of dissent or contradiction, views upon this or that phase of his subject which choice or accident may have given him the means of elaborating in private. The opportunity, further, is open to him to bring forward new observations, new facts, and new deductions from them, in such a way as to secure immediate and complete publicity. Dr. Creighton has not missed his opportunity. His address is full of interest. It is admirably arranged, and contains not only many new observations, but numerous suggestions which, however much we may be disposed to disagree with the conclusions to which they are made to point, are full of value in themselves. The main conclusion that the orator would have us draw is one that is altogether difficult of acceptance. Briefly, the object of Dr. Creighton's address is to assert the proposition that disease is not in itself an entity, apart in its origin and development from the human organisation, but rather that all morbid processes have had their origin in some disturbed physiological process, and to extend this view to the infective diseases, and more especially, by way of illustration, to some of those for whose origin a different explanation has of late years found very general acceptance. A normal physiological process—as, for instance, the regeneration of epithelium—may become so modified as to give rise to an excessive production of normal cells at any given point. For a while this may go on, and still be regarded as being within physiological limits. No disturbance of function takes place. With the extension of the process a new feature appears. The overgrowth of epithelium is found to occur in other epithelial tissues in vascular continuity with

That the great weight of evidence, as we at present possess it, inclines rather to oppose than to support the theory which he promulgates, is undoubted, and no good purpose could be served in adducing it here in opposition thereto. Our purpose should rather be to regard the question from the point of view of its author. The study of bovine tuberculosis, which he selects in preference to that of the disease as it affects human beings, is, and will doubtless continue to be, particularly associated with Dr. Creighton's name, and his views upon its origin and development possess, therefore, special value. He inclines to the belief that bovine tuberculosis is, in its origin, a disorder of nutrition. The chain of evidence by which he is led to this conclusion presents many points which are new to pathology. One of these, and the most important, arises out of the observations which he has made of the physiological peculiarities of the tissue in which the nodules of tubercular material are generally found. In many of the bovine animals, and especially those in confinement under unhealthy conditions, he has observed that deposits of fat are apt to occur in places where fat is seldom present, and that this abnormal distribution of fat corresponds very closely with the distribution of the tubercular nodules. Under conditions of artificial feeding and over-milking, these abnormal and apparently purposeless deposits of fat are apt to appear and disappear, sometimes with considerable rapidity. The microscopic structure of the tubercular nodules suggests the view that they are in reality only unsuccessful efforts at fat formation, and hence that the process of their formation is one of disturbed nutrition. Infection of other parts in no way connected with fat formation, or even with lymphoid proliferation, takes place from these centres. In other words, the disease, from a starting-point of disturbed nutrition, rapidly acquires autonomy. The theory is ingenious, and so far the observations on which it is founded stand alone. In the form of tuberculosis affecting man no such connexion can be traced. Fatty deposits upon the serous membranes are less common, but it is worthy of remark that the fatty deposits upon the heart, which also may vary in extent with the general nutrition of the body, show no tendency to develop or degenerate into centres of tubercular infection. From the starting-point of a disorder of function, the progress to the development of autonomy is clearly made out as far as regards the individual subject. The steps by which a disease that has become so autonomous acquires the power of infectiveness—the power of completely reproducing itself in some other individual body—are left out of consideration. Both with respect to small-pox and to yellow fever Dr. Creighton shows us that some reasonable grounds exist for supposing that they are both diseases which have at some period enjoyed a pre-autonomous stage—but that is all. Small-pox, coming originally from



uncivilised countries, can show nothing but its own singularly complex rash in support of the view that its origin has been one of disordered nutrition of the skin. Yellow fever, about the etiology of which many most interesting and valuable facts are collated, appears to have owed its origin to the dysenteric and other excreta of negro slaves—following doggedly, as it appears to have done, the progress of the negro slave trade throughout the world. The one point in its history to which Dr. Creighton triumphantly points as a proof of the origin of the disease having existed in disturbed physiological processes, is the fact that the negro slave to the present day appears to enjoy immunity from the ravages of yellow fever, even under circumstances most fatal to other races.

Interesting as Dr. Creighton's address is, it must still be questioned whether this theory of acquired autonomy of specific diseases does not present more difficulties to the average intellect than the view of their complete independence. Be the origins of small-pox, of yellow fever, or of typhus what they may, the conditions under which they now occur to us are, as far as can be at present proved, conditions of complete independence, and it is only by due recognition of this fact that they can be practically dealt with. As an attempt to check for a moment the overwhelming tide of opinion as to the parasitic nature of many of the specific fevers, of which it makes no mention whatever, the address may be looked upon as a praiseworthy effort, although we cannot regard it as sufficiently strong in argument or convincing in proof to obtain any marked measure of success.

#### THE ADDRESS IN SURGERY AT LIVERPOOL.

MR. HARRISON'S address was practical and common-sense in character rather than brilliant or ambitious. He had set himself to his task with the determination of accomplishing a useful, not a speculative result; of examining facts, instead of playing with theories; and of stating his case in clear, simple language, without striving for effects of rhetoric or attempting flights of oratory. The address deals with that special department of surgery to which the orator has devoted so much, and is now devoting nearly the whole, of his time and professional thought, and in which he has made himself an acknowledged authority—namely, the surgery of the urinary organs; and it was listened to by a very large audience with an amount of interest and attention which, whilst complimentary and gratifying to the speaker, showed also an appreciation of the views and practical knowledge set forth by him. He first pointed out, as was fitting, that the city then receiving the Association had in its hospital records evidence of the ardour with which surgery had been studied and practised there in times gone by; and therefore, he remarked, that in our desire to push forward it was now and then of value to look back and reflect upon what has been achieved in the past. Such reflections do not fail to be of service in reminding us that surgery is not entirely of modern creation, that almost in every direction much of what we are apt now to think new has been anticipated or thought over before; and in the case of Liverpool they bring to our remembrance the honoured names of Park and Alanson. Excision of the knee will be for ever a brilliant memorial of Park, who was Surgeon to the Royal Infirmary from 1767 to 1798; whilst Alanson, who was Park's colleague, and Surgeon to the Royal Infirmary from 1770 to 1794, is and will be remembered by his treatise on amputation, and the great diminution in mortality which his method of amputating effected.

After referring to the remarkable diffusion of surgical progress, and the widespread and thorough trial that any

addition to or modification of the usual surgical methods of treatment nowadays receives, Mr. Harrison commenced the consideration of his subject by a review of the more recent advances and work in connexion with the surgery of the kidneys. Sir William Lawrence, we believe, used to begin his lectures on the urinary organs with the remark, "Thank goodness, the kidney is an organ with which operative surgery has nothing to do." To-day the operations on the kidney form one of the leading subjects of surgical thought and discussion; and Mr. Harrison drew attention to an article in a recent number of the *American Journal of the Medical Sciences*, which contains an analysis of 100 cases of nephrectomy alone. His comment on this is: "Until quite recently, the diseases of these organs were regarded as belonging almost exclusively to the province of the physician, and probably they would have remained so had preventive medicine obtained fuller development. A more extended acquaintance with the pathology of the kidney has brought to light conditions in which the work of the physician requires to be supplemented by that of the surgeon." But Mr. Harrison, far from being carried away by an enthusiasm for this new surgery, balances it in the scales of good and evil, and concludes—(1) that nephrectomy has been the means of saving many lives under circumstances where no other method of treatment was likely to be of service; (2) that this operation has been practised in cases where the probability of a successful termination appeared to be very remote; and (3) that a method of effecting the removal of the organ different from that which was selected, or a procedure less heroic, might, in some instances, have tended to increase the chances of success.

With reference to the other operations on the kidney—nephro-lithotomy, nephrotomy, and the treatment by laying open of large hydatid cysts of the kidney—Mr. Harrison has nothing special to say: he alludes to them by implication, but nothing more. Yet it is here, we think, that the value of renal surgery will prove itself to be greatest. Calculus and its results, and the collection of large quantities of fluid in the pelvis, or in a new-formed cyst of the kidney, are not uncommon conditions, and are very amenable to relief by operation; but the tumours of the kidney are few and far between in comparison, and their removal is attended with more risk. Moreover, nephrectomy will be shirked by many practitioners, who might and would prudently perform the less formidable operations; and it must further be borne in mind, even by the most adroit and boldest of surgeons, that there are many cases of diseased and suppurating kidney in which complete extirpation of the organ even in the post-mortem room is an absolute impossibility, and in which, therefore, the only relief obtainable (and it is, not seldom, very great) is by means of nephrotomy, irrigation, and drainage.

Passing to the surgery of the bladder, Mr. Harrison first points out that whereas the surgical mind had begun to waver as to the value of lithotripsy, as practised on the lines laid down by Civiale, in all but cases of the simplest kind, two important communications, following closely one upon the other, and both of them emanating from America, have enormously advanced the position of lithotripsy, and increased the estimation in which it is held. The first of these communications was that by Otis, showing that the male urethra was capable of safely receiving far larger instruments than had previously been employed; and the second was Bigelow's writings and demonstrations on crushing and removing vesical calculi at a single sitting. That Bigelow's method of procedure is a great step in advance, and has extended the limits of lithotripsy and curtailed those of lithotomy, must be freely admitted, though we must not suppose it capable of universal application, or that the finality of



its perfection has been attained. Justice to lithotomy does not escape the author of the address, who says, "There is no great operation in surgery which furnishes more successful results than this. Taking the experience of the two hospitals in this city with which I have been associated, I find there have been within my recollection 102 cases of lithotomy in persons of all ages, but chiefly in children. In only five of these cases could I ascertain that a fatal result followed." Mr. Harrison's figures confirm the opinion long and generally held respecting lithotomy in persons not beyond puberty. From a consideration of the cases in which the bladder has been opened for the removal of tumours, he thinks it might have been better had the operative proceeding terminated with the detection and exploration of the growth by the finger; and it must be allowed that experience has shown the chance of rupturing or tearing away the walls of the bladder, and of inducing uncontrollable hæmorrhage, to be real dangers which ought to be well weighed before attempting to remove bladder-growths—more especially as many of them are capable of only very partial or incomplete removal. When their removal is to follow upon their discovery, and when it is not, must be a matter for future consideration and decision. Good service has, the orator considers, been done by giving prominence to the employment of digital exploration of the bladder, and in furnishing illustrations of the great advantage that this proceeding is capable of affording in suitable cases. In this opinion we cordially agree, and the last two numbers alone of the *Medical Times and Gazette* have contained the records of cases which amply and clearly justify it.

How to deal with the ill-consequences of enlargement of the prostate, when the comfort that catheterism is often capable of affording has ceased to be attainable, is considered, and preference is given, on the grounds of safety and comfort, to establishing a drain for the urine by an incision through the perineum on the lines of Syme's and Cock's operations. Attention is, however, favourably drawn to the method of puncturing the bladder through the enlarged prostate, which has afforded very gratifying results in Mr. Harrison's practice, and has received the approval of the distinguished and venerable Professor Gross. The proceeding consists "in passing the trocar through the gland, and retaining it in the perineum, so as to afford a permanent as well as a convenient drain for the urine." Mr. Harrison further advises that in cases in which a prostatic bar is obstructing or complicating micturition, it should be early divided at the neck of the bladder through an opening made into the membranous urethra, rather than by means of a cutting instrument made to traverse the whole length of the canal after the manner of Mercier. He considers the operative treatment of enlarged prostate, when it obstructs micturition to a degree that cannot be overcome by the use of the catheter, is yet open to considerable improvements; and avers that the partial and complete excision of the gland is an operation of much promise. He refers to a case in which he very successfully excised the whole of the prostate for malignant disease in a middle-aged man, by cutting down upon it in the median line, and cleanly enucleating it with his finger; the benefit which followed far exceeded Mr. Harrison's expectations, and eight months after the operation the patient was still in fair health and quite able to attend to his business.

Passing to the surgery of the urethra, Mr. Harrison refuses to follow Otis in his views relating to the performance of internal urethrotomy as a means of treating strictures, and thinks the operation is losing, instead of gaining, ground in the opinion of many who have ample opportunities of judging fairly of its merits. He says, and, as we think, rightly, that it is an operation neither necessary nor

safe in the early stages of stricture, and in none does it give a greater immunity from recurrence than other operations. His remarks on this subject of the treatment of strictures afford a good example of the individuality, comprehensiveness of view, and common sense which we see running through the whole of the address. With respect to Otis's work in reference to the dimensions and dilatability of the urethra, Mr. Harrison adds, "If he had done no more than contribute to the improvement of lithotripsy—and this cannot be questioned—we should still be largely in his debt."

We need not follow the orator in his thoughts about brain-strain and the probable effects of nerve-tension on the urinary organs, nor notice his remarks on instrument designers and makers, chloroform, and antiseptics, but will conclude by saying that he has very well pointed out in this address the prominent improvements and features in the treatment of a most important class of the surgical affections.

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#### KING'S COLLEGE HOSPITAL AND ST. JOHN'S HOUSE.

It has for some time been rumoured that the relations between the Sister-Matron of King's College Hospital and the Lady Superior of St. John's House, on the one hand, and the Medical Staff and the Committee of the Hospital on the other, were dangerously strained; and matters have come to a crisis. It appears that some months ago the Sister-Matron, otherwise called the Sister in Charge, at the Hospital forwarded to the Committee of the Hospital a report complaining of the behaviour and language of one of the medical officers to a patient in the obstetric department, adding that the complaint was one of long standing and of frequent recurrence. The Hospital Committee caused an investigation to be made into the matter, and, as a result of this, they informed the Sister that a sub-committee had reported that the evidence laid before them was entirely insufficient to sustain the charge brought against the medical officer; that the Committee had therefore informed him they entirely exonerated him from it, and that they regretted the charge should have been made. This might, in happier circumstances, have ended the matter; but it must be supposed that the relations between the Sister-Matron and the Medical Staff had not previously been all that was to be desired, for the Medical Board made use of the complaint and its results to urge the removal of the Sister-Matron, alleging that she had for some time past adopted a line of conduct adverse to the harmonious working of the Hospital, and prejudicial to the interests of the Medical School. The Council of St. John's House recognised the justice of the complaint made by the medical officers, in so far that they took steps for removing the Sister-Matron, and informed the Committee of the Hospital that she would retire. It appears, however, that the Sister in question never had expressed any intention of retiring, and that, in fact, she positively declined taking any such step. She was supported in her determination, we understand, by the Lady Superior of St. John's House, and by all the Sisters nursing in King's College Hospital; and, as the Council of the House were in accord with the authorities of the Hospital as to the matter in dispute, they could not yield to the Sisters. The result has been that the Lady Superior, the late Sister-Matron, known as Sister Aimée, and some thirty others of the Sisters, have sent in their resignations, and withdrawn from all connexion with both St. John's House and the Hospital. Such a dispute and its results are very deplorable. But if lady nurses, whether they belong to a religious sisterhood or not—and St. John's



House is not a religious sisterhood in the special sense of that term,—will so magnify their office as to set their authority above that of the medical staff of a hospital, or of the medical attendants in private cases, mischief must come of it. As our contemporary, the *Times*, remarks in commenting on this quarrel, “So long as the medical staff and a nursing sisterhood can work in harmony, everyone would admit that their co-operation must redound to the vast benefit of the hospital in which they serve. . . . Medical men would be the last to undervalue or despise their salutary and beneficent influence.” But they, as regards medical men, must be second, not first. “The moment the question is raised, whether in the last resort the sisters or the doctors are to rule, there is but one answer to be given. The final authority must rest with the medical staff.” In the case in question the Sisters appear to have put themselves hopelessly in the wrong; they set their own opinions above those not of the Medical Staff only, but also of the lay authorities of the Hospital and of the Council of St. John’s House. The governing authorities on both sides—the Hospital as well as the House—have, we believe, been very earnest in trying to induce the Sisters to take a less exalted and more practical view of their office and functions, and have shown great patience in the matter; but in vain. We believe that the Council of St. John’s House even invited the protesting Sisters to state on what conditions, if any, they would reconsider and withdraw their resignations; but that the terms proposed in reply were so preposterous as to show that all further negotiations would be utterly hopeless. We have a notion that one of the conditions was that the St. John’s House should boycott King’s College Hospital for ever and aye; but that seems too ludicrous to be true. It is true, however, that the rupture between these ladies and St. John’s House and the Hospital is complete and final. Fortunately, the consequences have not been serious for those institutions. The nursing of the Hospital has been perfectly carried out, and the Sister-Matron’s duties have been entrusted to other and competent hands; while the St. John’s House continues and will continue its great work of striving to improve the qualifications and to raise the character of nurses for the sick in hospitals, among the poor, and in private families, by providing for them professional training, together with moral and religious discipline.

## THE WEEK.

### TOPICS OF THE DAY.

AN influential deputation from the members of the London Vestries and the Metropolitan District Boards, last week waited upon the Home Secretary, with whom was the President of the Local Government Board, in order to make certain representations relative to the increased charges now being made by the water companies of the metropolis. Mr. W. H. Smith, M.P., in introducing the deputation, remarked that recently, and particularly within the last six months, the water companies had greatly increased their charges under the powers which they possessed. If not impossible, it would at any rate be most difficult for the individual occupier of a house to resist their demand, and, moreover, in doing so he would have to face very heavy legal expenses, which would be greatly in excess of the increased charge he was called upon to pay. Under these circumstances the deputation had come to the Home Secretary to solicit the relief to which they believed themselves entitled. Mr. Farrer then explained at some length the whole circumstances of the case, and showed that the vestries had no organisation among themselves by which they could bring the question before Parliament, and they therefore felt that the Govern-

ment should take the question up. In replying to the deputation, the Home Secretary promptly availed himself of the occasion as offering him an excellent opportunity for delivering a satirical lecture on the present misgovernment of London, and in his own peculiar style he proceeded to inform them that the Government did not intend to attempt the municipal administration of London, so that, while fully recognising the evils of the system they had come to complain of, he refused to hold out any hope that the Government would interfere in the matter. It has to be remembered that Sir William Harcourt was foremost in the opposition to the water-supply scheme of the late Conservative Government, and it is greatly owing to his exertions upon that occasion that the water companies now enjoy a net income exceeding by £30,000 a year the interest on the gross sum they would then have received for their rights, privileges, and plant.

At the last meeting of the City Commission of Sewers a letter was read from the Home Secretary, calling the attention of the Commission, as the sanitary authority for the City of London, to the especial expediency of putting into early operation, wherever it might be necessary, the provisions of the Artisans’ and Labourers’ Dwellings Acts, 1875-82. Also suggesting that the Commissioners should give directions to their Medical Officer of Health to examine, at his earliest convenience, the district under his charge, and to make official representations to the Commission of all such areas as he should consider to be unhealthy, with a view to the Commission making them the subject of improvement schemes, to be confirmed by Parliament in the course of next session. The letter was ordered to be referred to a committee, the Medical Officer having the matter already before him. The Sanitary Committee next brought up a report in regard to the suggestions recently made by the Medical Officer of Health in reference to various sanitary arrangements necessary to guard against cholera. They recommended that most of the suggestions should be adopted, especially in regard to the flushing and disinfecting of sewers and catchpits, the removal of refuse, the cleansing of the various alleys and courts, the disinfection of stables, the examination of cisterns and the water-supply, the prosecution of offenders under the Smoke Act, the increased vigilance in detecting and seizing unsound food, and lastly, in the event of an outbreak, a house-to-house visitation by medical men. Dr. Sedgwick Saunders reported that the total quantity of meat brought into the Central Markets at Smithfield during July had been 16,383 tons, of which twenty-five tons were seized as unfit for human food. Urgent complaints, he said, continued to reach him regarding nuisances arising from gullies and sewer ventilators in the public streets. The rate of mortality in the City for the previous week was only 14·19 per 1000, as compared with an average of 21·3 per 1000 in the twenty-eight great towns of England and Wales. Several cases of choleraic diarrhoea, of which one had proved fatal, had been treated in the City, and most of them were directly traced to the eating of unsound food. The fatal case was said to have been caused by eating bad pork; while a whole family had been dangerously ill through eating tainted fish.

Recently, at the Hammersmith Police-court, Mr. Jones, clerk to the District Board of Works, applied to Mr. Partridge for an order to the relieving officer of Fulham to bury the body of a child who died from measles on the 17th ult. He stated that the body remained in the same room with the mother and four other children until the 23rd ult., when Dr. Collier, the Medical Officer of Health, caused it to be removed to the mortuary for the safety of the family. Mr. Jones now applied, under the twenty-seventh



section of the Sanitary Act, for an order to be issued on the relieving officer, requiring him to bury the body. Mr. Partridge wished to know why the body had not been buried before, and remarked upon the dangerous delay. Mr. Jones said an application was made to the relieving officer by the mother and the Board's inspector, but he refused to move without an order from a magistrate. Mr. Partridge remarked on this as very extraordinary conduct. He granted the order for the interment of the child, and desired that the case might be brought to the notice of the Board of Guardians, as the relieving officer appeared to have dangerously neglected his duty.

The Stockton and Middlesborough Water Board is about to carry out one of the great works it has authority to construct for the provision of an additional supply of water to the district. The Board was formed seven years ago, when the consumption of water was decreasing, owing to the dulness of trade, but within the last four years the consumption has advanced so rapidly that it now exceeds the legal maximum the Board has power to pump, viz., 60,000,000 gallons weekly. The present supply is drawn exclusively from the river Tees, and there have been complaints for a long period as to the polluted nature of that source, and power was given seven years ago to construct large works in Upper Teesdale. One part of this scheme is now about to be carried out, viz., the construction of the Hury and Blackton reservoirs at an estimated cost of about £365,000. By it an ultimate addition of 46,000,000 gallons per week is expected to be obtained; but it would be by the construction of the reservoirs as compensating reservoirs only, the additional supply being pumped from the river. The cost of the Hury reservoir alone, which is expected to give 32,000,000 gallons of water weekly, is estimated at £286,000.

The west wing of the West London Hospital, Hammer-smith-road, was opened on Saturday afternoon last by Her Royal Highness the Duchess of Teck. The charity is fortunate in having the Prince of Wales for its patron, and the Duke of Devonshire for its president. The new portion, formally opened on Saturday, has been provided chiefly through the liberality of the Homage Jury of the Manor of Fulham, and of a lady whose name is not disclosed. The former gave £2000, and the latter £500. The total cost of the present extension, including furnishing, is set down at nearly £6000; one of the new wards is to be appropriated to children, and will contain about thirty cots. Another is to be devoted to male surgical, and a third to female surgical cases.

At the final meeting of the British Medical Association, at Liverpool, Dr. Fitzpatrick (West Derby) moved that the Parliamentary Bills Committee be instructed to oppose any attempt to repeal the Contagious Diseases Acts, and to endeavour to induce the Government to resume the working of those measures. Surgeon-Major McCormack seconded the motion. Amid great uproar, Dr. E. Whittle (Liverpool) supported the repeal of the Acts. The meeting ultimately refused to hear him, but he succeeded in moving that no action be taken in the matter. Another speaker against the Acts failed to obtain a hearing; and eventually Dr. Fitzpatrick's motion was carried.

#### THE CHOLERA IN EGYPT.

THE reports from Egypt continue to improve as regards both the number of deaths from cholera and the rate of mortality. The telegram from Alexandria, of date August 8, gave the deaths recorded during the previous twenty-four hours as at Cairo 70, at Minieh 27, at Girzeh 24, at Zagazig 21, at Tantah 18, at Kafrzayat 17, at Alexandria 17, at

Rosetta 15, at Atfeh 14, and in the rest of Egypt 416. The total loss by cholera among the British troops had been brought up to 123 officers and men. The latest telegram stated that the improvement in the condition was progressing at all the stations: there had been only one fresh case of cholera among the troops, and one death from cholera since the previous day. A correspondent of the *Times* speaks in the highest terms of the devotion the officers were showing to their men; transforming themselves into sick-nurses, sitting day and night with their men, carrying them in their arms, and performing all and any services for them. We regret to learn that Superintending Sister Jones, well-known for her work among the sick, has been instantaneously killed in a carriage accident at Helouân.

#### THE HEALTH OF LONDON.

THE Registrar-General's return for the week ending July 28 showed that in London the deaths were 165 below the average numbers in the corresponding weeks of the last ten years. The annual rate of mortality from all causes, which had steadily increased in the six preceding weeks from 16.9 to 23.5, declined again in the week ending July 28 to 21.2. The deaths attributed to diarrhoea and dysentery, which had been 72, 167, 327, and 351 in the four preceding weeks, declined to 254, and were 66 below the corrected weekly average; 237 of these deaths were of infants and children under five years of age. The deaths of 8 infants and children and of 1 adult aged sixty-three years were referred to simple cholera or choleraic diarrhoea. In the Outer Ring, 38 fatal cases of diarrhoea (including 11 in the West Ham district, and 5 in Richmond sub-district) were recorded. Last week, i.e., the week ending August 4, the rate of mortality from all causes had further declined to 19.3. The deaths included 168 from diarrhoea and dysentery, and 6 from simple cholera and choleraic diarrhoea; this total was 126 below the corrected weekly average; 150 of the deaths attributed to diarrhoea and dysentery were of infants and children under five years of age. The deaths of 4 children and 2 adults were referred to simple cholera or to choleraic diarrhoea. In the Outer Ring, 29 fatal cases of diarrhoea were recorded, 10 of which were returned in the West Ham district.

#### COMMUNICABILITY OF SYPHILIS TO ANIMALS.

THE last number of the *Wiener Mediz. Woch.*, No. 29, contains two papers on the above subject. One is from the pen of Dr. Köbner, who worked at this subject many years ago, and has again devoted some labour to the question. The other originates with Neumann, an account of whose still recent researches we had occasion to give in abstract on page 619 of our first volume for the present year. Both investigators again arrive at the conclusion that true syphilis cannot be transmitted to animals. Köbner obtained positive results with inoculations performed with scrapings from a soft chancre on rabbits. Frequent inoculations with pus from simple and scrofulous buboes always gave no result. Köbner concludes that there is a specific contagium in the pus from a soft sore. Something more is necessary than mere contact if successful inoculations with the pus from a soft chancre are to be made. There must be a wound; and the deeper this goes, the greater the certainty of a successful result. Experiments were chiefly performed on the conjunctival sac of rabbits. Klebs, Aufrecht, Birch-Hirschfeld, and Morison have found bacilli in syphilitic new growths, but Köbner has to confess that, in spite of trials with all the new methods of staining, he has been unable to find the bacilli in excised papules of the skin and indurations where the surface was quite unbroken.



THE WATER-SUPPLY.

FOR a considerable time Colonel Bolton, in his monthly water reports, has drawn attention to the fact that, as regards organic pollution of the London water-supply, the most frequent and dangerous sources are the cisterns and butts in which the water is stored. On his suggestion, the water companies have arranged to give notice to every householder of the great importance of having all cisterns, butts, and other receptacles for the storage of water thoroughly cleansed. The companies will send out some 650,000 notices to that effect.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirtieth week of 1883, terminating July 25, was 1002 (553 males and 449 females), and of these there were from typhoid fever 32, small-pox 12, measles 16, scarlatina 5, pertussis 15, diphtheria and croup 24, dysentery 2, erysipelas 3, and puerperal infections 4. There were also 50 deaths from tubercular and acute meningitis, 181 from phthisis, 12 from acute bronchitis, 64 from pneumonia, 131 from infantile athrepsia (40 of the infants having been wholly or partially suckled), and 29 violent deaths (20 males and 9 females). The health of Paris continues satisfactory, the deaths from all epidemic affections being relatively rare. The number of admissions for typhoid fever has diminished from 127, three weeks since, to 64. The births for the week amounted to 1221, viz., 560 males (411 legitimate and 149 illegitimate) and 661 females (491 legitimate and 170 illegitimate). The female births, contrary to the normal rule, have greatly exceeded the male births this week, and it is possible that there may be some error in the returns: 97 infants were either born dead or died within twenty-four hours, viz., 61 males (43 legitimate and 18 illegitimate) and 36 females (21 legitimate and 15 illegitimate).

MOLLUSCUM CONTAGIOSUM GIGANTEUM.

UNDER this name Dr. S. Laache, of the Anatomico-Pathological Institute of Christiania, describes, in a recent number of the *Nordiskt Mediciniskt Arkiv*, a tumour extirpated from the nape of the neck of a female, aged fifty-six. This tumour, which had lasted for thirty years, but had increased considerably for the last four years, was of the size of the fist, with nodulations or unequal protuberances on the surface; it was covered at its base with normal skin, sending tongue-like ramifications over the whole tumour, and which were transformed at last into a delicate membrane, half pellicular and half granular, covering the whole mass except at the summit, where there was a flat crateriform depression. Under this incomplete covering there was the mass of the tumour, which, as it were, undulated against the surface. The cut surface, equally composed of nuclei of unequal size, separated by septa of cellular tissue, presented a granular aspect, but without the knife being covered with adipose matters. Examined by the microscope, the lobules contained, in the circumference, cellules evidently resembling epidermis, while in the centre were seen a considerable quantity of corpuscles with an adipose or waxy lustre strongly resembling amyloid tissue. In all other respects they resembled the corpuscles of molluscum, with which the author compared them. In his remarks on the case, Dr. Laache discusses the differential diagnosis between molluscum and epithelioma or cancrroid, to which last the tumour was at first referred. From cancrroid, however, the molluscum in question was distinguished by its definite form and its tendency to grow outwards, besides by its being covered entirely by a kind of delicate skin without any apparent ulceration. It was, however, the presence in

considerable quantity of corpuscles of molluscum which determined the diagnosis. The author admits, however, that, as regards prognosis, the tumour could not be regarded as being so benignant as ordinary molluscum, and he therefore thinks he ought to consider it as a transitional form between the malignant epithelial tumour and the benignant one. He observes that there was no relapse at the end of more than six months. In conclusion, Dr. Laache considers the presence of nuclei in several of the shining corpuscles as a proof in favour of the opinion that the corpuscles of molluscum are the results of a peculiar degeneration of pre-existent epidermic cellules.

BRITISH MEDICAL SERVICE.

THE following is the list of the marks gained by Surgeons on probation in the Medical Department of the British Army at the close of the Netley examination (August, 1882). The order of position of these gentlemen is not affected by marks they have gained at the Netley examination:—

	Netley marks.		Netley marks.
1. D. Bruce . . . .	2975	8. P. J. Gallwey . . .	1699
2. H. C. Gordon . . .	2320	9. R. R. H. Moore . .	2000
3. H. L. Bell . . . .	2186	10. P. J. B. O'Shaughnessy	1455
4. J. Riordan . . . .	2285	11. J. R. S. Robertson	1965
5. H. A. De Lom . . .	2101	12. A. E. Tate . . . .	2050
6. R. H. Firth . . . .	2460	13. C. E. Faunce . . .	1792
7. G. Nelis . . . . .	1990	14. W. H. Lendrum . .	2200
15. H. J. Wyatt . . .	1613	Netley marks.	

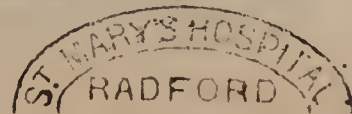
The first-named gentleman gained the Montefiore Second Prize.

PROFESSOR OWEN, C.B., LL.D., F.R.S., F.R.C.S.

THE members of our profession and the public generally will be glad to hear that at a meeting of the Council of the Royal College of Surgeons, held on the 9th inst., the Honorary Gold Medal of the College was unanimously awarded to Professor Owen, in recognition of his very numerous and important contributions to biological science, and of the valuable services which he rendered to the College while he was Conservator of the Museum, and Hunterian Professor of Comparative Anatomy and Physiology. By some this honour may be considered a somewhat tardy recognition of laborious services, seeing that the learned Professor must be almost, if not quite, an octogenarian, as he was admitted a Member of the College so long ago as August, 1826, and was elected an Honorary Fellow of the College in the first batch of Members upon whom that honour was confirmed—viz., December, 1843. He has done eminently good suit and service in the College, having been elected Assistant-Conservator of the Museum in 1827; and Conservator from 1842 to 1852, when he retired on receiving the appointment of Keeper of the Natural History Department in the British Museum. He was for some years Hunterian Professor of Comparative Anatomy and Physiology in the College, to which office he was elected in 1835. This medal was established in 1800, when it was awarded to Professor James Wilson, and has only been presented six times, the other recipients of it being—Mr. James Parkinson, in 1822; Mr. Joseph Swan, in 1825; Dr. George Bennett, F.R.S., in 1834; Mr. William Lodewyk Crowther, F.R.C.S., in 1869; and Dr. Thomas Beville Peacock, in 1876. (The gentlemen whose names are printed in italics are still living.)

THE CONVICT DR. GALLAHER.

THE *Philadelphia Medical News* (July 14) states:—"Dr. Thomas Gallaher (not Gallagher, as usually written), who has recently received a life sentence as one of the leaders in the dynamite conspiracy in London, is a regularly edu-





cated physician, having graduated at Bellevue Medical College in 1879. Soon after taking his degree he made his residence at Greenpoint and joined the King's County Medical Society. His appearance was not that of one fitted for stratagem and conspiracy; he was quiet and retiring in disposition, apparently. It is generally believed that he has fallen into this distressing position on account of the lot falling to him under the arbitrary rule of some secret society with which he had become entangled."

#### DISTINCTIONS TO ARMY SURGEONS.

"A SURGEON-GENERAL" writes to the *Times* of last Wednesday to corroborate the statements that have been made as to the unfair treatment to which medical officers in the Army are subjected. We have always deprecated any sort of pursuit of honorary titles by medical men; but there are occasions when the non-bestowal of such titles becomes not merely an injustice and a wrong, but a positive insult. Such a case is that related by the *Times'* correspondent in the following terms:—"Dr. —, C.B., V.C., compulsorily retired, after nearly forty years' service in all parts of the empire, including the entire Crimean campaign and several cholera epidemics; was twice in medical charge of an army in the field, and repeatedly mentioned in despatches, as well as specially recommended for some mark of Her Majesty's approbation for distinguished conduct in the field, where he was frequently under fire in the execution of his duty, and a second time earned the Victoria Cross and received the thanks of the Government for special services; has been twice recommended by the general officer under whom he served for promotion in the Order of the Bath, of which he has been a C.B. for twenty-eight years; and, notwithstanding his services in two subsequent wars, is still, as far as honours are concerned, in the same position, while his juniors in the order in all branches of the Service have been promoted over his head. I venture to think there is no officer in any other branch of the Service whose claims have received such scant justice, and would suggest that some independent member of Parliament should call for the correspondence in this and similar cases." We commend the concluding remarks to the notice of Sir Lyon Playfair, of Dr. Cameron, and of Sir John Lubbock, whose constituency includes a larger number of medical men than that of perhaps any other English member.

#### KAIRIN.

AN excellent series of clinical observations on the anti-febrile action of kairin has been contributed to the *Berliner Klin. Woch.*, No. 31, by Paul Guttman. The number of experiments made upon forty-two patients was seventy-two. These included cases of pneumonia, measles, phthisis, typhoid fever, scarlatina, pleurisy, peritonitis, erysipelas, ague, and septicæmia. It is understood that the experiments were only made when the fever in the above diseases was present and likely to remain so. This principle was carried out as far as possible, and the drug was administered in the latter part of the morning, and continued till the end of the afternoon. In the majority of cases the temperature ranged from 39.5° to 40.5° Cent. when the experiment was commenced. It was shown that kairin, administered in hourly doses of one-half to one gramme, was soon followed by a gradual fall in the temperature of the body: so that in from three to four and a half hours after commencement, in the majority of cases, a considerable reduction had taken place, and in several the register indicated a normal body heat. By repeated doses of a gramme of the kairin the normal temperature may always be gained—this is vouched for by Filehne and Guttman. The course of the downward curve

is sketched. In many patients a notable degree of perspiration was met with—especially in cases of phthisis. As the temperature falls the pulse becomes less frequent. No unpleasant symptoms were caused by the kairin, which was used freshly prepared; older specimens may give rise to cyanosis and collapse. The antipyretic effect of kairin is not weakened through repeated use; each new dose is followed by the usual result. Kairin is incapable of shortening the disease or altering its phenomena. Greenish colouration of the urine appears about twelve hours after the administration of the drug, and lasts generally for about twenty-four hours. A contrast is made between the effects of quinine and those of kairin. The latter acts more rapidly, but is of shorter duration; the former is just the opposite. Kairin given in hourly doses of one gramme, after the employment of three to four grammes, has a more powerful and constant anti-febrile effect than quinine in doses of one and a half to two grammes. Owing to the high price of the new remedy, it is probable that its extensive introduction must be postponed.

#### INDIAN MEDICAL SERVICE.

THE following is the list of Surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley examinations (August, 1883). The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—

	Combined marks.		Combined marks.
1. J. M. Young . . .	5680	3. M. A. T. Collie . .	5225
2. G. Jameson . . .	5257	4. W. H. Quicke . .	4733
5. A. O. Evans . . .	4691	combined marks.	

The first-named gentleman gained the Herbert Prize, the Martin Memorial Gold Medal, the Montefiore Medal, and the Parkes Memorial Bronze Medal.

#### THE EISTEDDFOD.

THIS great Welsh festival, which is said by its adherents—or, at all events, by some of them—to date from the fifth century, is changing with the times. It now, through the Honourable Cymmodorion Society, adds science, art, and literature to its programme. Last year, Dr. Richardson, by invitation of the Council of the Cymmodorion, opened the proceedings with an address on the subject of "Race and Life on English Soil." This year he presides over the Science Section, and inaugurated it on Thursday morning, in the Town Hall, Cardiff, with a presidential address on "Science in Every-day Life."

#### COLLECTIVE INVESTIGATION IN GERMANY.

A COMMITTEE has been formed in Germany for the purpose of organising the collective investigation of disease, in a manner analogous to that which, through the initiative of Professor Humphry, has been adopted in this country. It has commenced its work by sending out, to all qualified medical men, a card of inquiries concerning phthisis. This disease has been chosen on account of the great interest excited by the recent discovery of a supposed tubercle-bacillus. The card concerning phthisis contains four sets of questions, which relate—(1) to its inheritance; (2) to its contagiousness; (3) to its curability; and (4) to the passing of pneumonia into phthisis. These are preceded by a number of general questions concerning the case. The inquiries are very detailed, and, if adequately and correctly filled up, a very large body of facts will be at the disposal of the committee. The committee consists of the following names:—Bernhardt, Blumenthal, Ewald, Fraentzel, Frerichs, S.



Guttmann, Jastrowitz, Kalischer, Klatsch, Leyden, Litten, D. Loewenthal, W. Lublinski, Riess, F. Strassmann, Wernich, Zander. The secretaries are Dr. S. Guttmann and Dr. W. Lublinski, of Berlin.

#### THE DOINGS OF THE METROPOLITAN ASYLUMS BOARD.

At the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last, a motion was considered, expressing the opinion of the Eastern District Hospitals' Committee that an additional fever hospital in the East-end of London was necessary, and requesting the Local Government Board, should they also be convinced of such necessity, to authorise the Managers to take the necessary steps in the matter. The Board, after a long discussion, decided to adopt the motion. The General Purposes Committee was also empowered to elaborate a scheme for the provision of such hospital buildings, upon land about to be acquired at Darenth, as would form the nucleus of accommodation for 1000 convalescent small-pox patients; and upon the recommendation of this Committee it was decided to apply to the Local Government Board for power to raise upon loan the sum of £10,000, the estimated cost of converting the *Castalia* into a floating hospital for the reception and treatment of small-pox patients. The returns from the small-pox asylums showed that during the fortnight 10 patients had been admitted, 18 had been discharged, 45 remained under treatment, and there were 177 beds available. Compared with the returns of the previous fortnight, these figures showed a decrease in the total number remaining under treatment of 8. The returns from the fever hospitals showed that during the fortnight 96 patients had been admitted, 8 had died, 49 had been discharged—leaving 347 still under treatment, and 524 beds available. These figures give an increase in the total number remaining under treatment, as compared with the preceding fortnight, of 35. The 347 cases under treatment were composed of 296 scarlet-fever patients and 51 enteric-fever patients.

In answer to a question from Sir Trevor Lawrence, in the House of Commons, on Monday, Mr. Gladstone said that it is undoubtedly the intention of the Government to proceed with the Medical Act Amendment Bill. It had come down from the House of Lords, and precedence was given to other Bills; hence the delay in proceeding with it.

In view of the possibility of an outbreak of cholera in Paris, the City Municipal Council have voted 480,000 fr. for the erection of wooden buildings in the bastions of the fortifications, to serve as hospitals. Ultimately, these will be used for patients suffering from other contagious diseases.

THE Woolwich Board of Guardians has increased the medical fees for lunacy cases from ten to twenty shillings.

A sad event happened on Saturday last, at Normansfield, Hampton Wick. Lieutenant Everleigh Down, the eldest son of Dr. Langdon Down, accidentally wounded himself in the thigh with a chisel. In spite of all that could be done to arrest hemorrhage, he died the same evening. We are sure that the profession will deeply sympathise with Dr. and Mrs. Langdon Down in their heavy bereavement.

WE regret to see announced the death of Professor Parrot, of Paris. He is known to fame by his writings, chiefly upon the subject of children's diseases. It will be remembered that a few years ago he demonstrated before the Pathological Society of London, during the presidency of Mr. Jonathan Hutchinson, the osseous lesions which he had found in cases of hereditary syphilis.

## ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(From our Special Correspondent.)

LIVERPOOL, August 4.

THE second general meeting was held on Wednesday morning: the business was formal and brief. The President of the Council read out the names of those who had been elected to serve on the Committee of Council, and then stated that, in response to a very cordial invitation from the profession at Belfast, the next meeting would be held there, and he moved that Dr. Cuming be nominated President-elect. This was carried by acclamation. The Address in Surgery followed (which has already appeared in these columns in full).

An important though scanty meeting of Volunteer Surgeons was held, at which Surgeon-Major Parsons presided. Surgeon-Major Evatt read a paper on Volunteer Medical Organisation. He contended that if the Volunteer Medical Service was to be worth anything at all it must be properly organised, should have its own uniform, and undergo a systematised course of instruction. He recommended that, besides being attached, as at present, to regiments, they should be organised into a department resembling that of the regular Army, and wear a similar uniform. Doubtless, some such organisation will become incumbent on the Volunteer Medical Service; and the Government would do well to encourage it warmly. The regular Medical Department is much too small to meet the requirements of active military service, and they are compelled to accept the help of anyone who volunteers. If a Volunteer Medical Department of properly trained men, accustomed to discipline, and from which they could select, were at their disposal in war time, the advantages to the Army would prove of the highest importance and value. Militia Surgeons also held a meeting to discuss their own concerns, and chiefly their grievance about the retiring pension on reaching the age of sixty-five years, which an Act of Parliament of George II. allows them, and which has lately been disallowed, although the Act has never been repealed. A third general meeting, which subsequently resolved itself into an extraordinary meeting, was held on Thursday, at which the proposed alteration in the by-laws and in the articles of association were further discussed and agreed upon. With a view to meet certain technical details, the resolutions will have to be confirmed at a second statutory extraordinary general meeting, and this it was decided to hold in London on the 17th inst., when the new by-laws, to which I alluded in my last letter, will actually become law, though they do not come into force until the annual meeting next year. This being settled, some further ordinary business was transacted. The most important of this referred to the work of the Collective Investigation Committee. The report showed that some seven subjects are under consideration—the communicability of phthisis; acute pneumonia, its epidemic prevalence, communicability, and association with other diseases; chorea; rheumatism; diphtheria; and syphilis—truly a goodly list. Votes of thanks to the various sub-committees who are engaged in analysing these reports were passed. I am pleased to be able to say that it has been decided to pay these gentlemen for their services. The reports, if they are to be worth anything, will necessitate a vast amount of work, and it would hardly be fair to expect those who undertake it to do so without some remuneration. Of all their work which the Association has at present initiated, there is none, in my opinion, equal in importance to this. Our American and also our continental brethren have started a similar work, and it is modelled on the plan laid down by the Association. It may be hoped, therefore, that real good will result in the course of time. I trust, however, that the Committee will not be led to hurry these investigations, on the false principle of having something to show for the money which must be spent out of hand in setting the investigations a-going.

On Friday morning the third and last of the addresses-in-chief was delivered before a large and interested audience by Dr. Creighton. I shall not—especially as I cannot agree with him in his arguments—attempt offhand a



*resumé* of an address which was so obviously the outcome of much thought and research. Following on the lines of his observations as to the nature of cancer, he argued that the specific fevers are but "modifications of healthy states, deviations from the beaten track, perturbations of the normal life, or shortcomings of the physiological standard." The Scientific Grants Committee presented their report for the past year. They also propose a very important new departure, viz., that with a view to more effectual and larger encouragement of scientific medical research two scholarships, of the annual value of £150, be founded. They are to be tenable, at the discretion of the Committee, for three years. They reported also that a fully equipped physiological laboratory had been placed at their service, but that they had not yet had time to consider this proposal. It was thought its acceptance would involve the Association in an expenditure of about £400 per annum. The reports of the Medical Reform Committee, of the Parliamentary Bills Committee, of the Habitual Drunkards Committee, were all read and approved, and formal votes of thanks to all those who had contributed to the success and pleasure of the Liverpool meeting brought the business of the meeting to a close.

I will now try and give a bird's-eye view of the medical work which was done. This, as you know, was subdivided into ten sections. Subjects of interest were selected for special discussion in nearly all the sections; and, on their conclusion, papers of general interest were read. I am bound to say that the former attracted the larger share of attention. In the Medicine Section, Wednesday was devoted to the consideration of papers on the Nervous System. Dr. Gairdner commenced, by reading an elaborate paper on Aphasia, which occupied a considerable part of the sitting. Drs. Jackson, Broadbent, Drummond, Ireland, Allbutt, Wahltuch, and others took part. Subsequently, Dr. Broadbent opened up the subject of Arterial Tension, and drew attention to its causes and consequences. Later on, papers on Phthisis and other lung diseases were read; and on the Friday, Dr. Stephen Mackenzie discussed the nature of Purpura in an able and suggestive paper, of which the following is a brief abstract:—He thought all would agree with him that the nosological position of purpura was unsatisfactory. If in a case the cause was known, or there were definite concomitants, it was looked upon as symptomatic; whilst of so-called genuine or idiopathic purpura little or nothing was understood. The first question he would ask was, "Are there any pathological changes peculiar to, or characteristic of, purpura which connect the cases, presenting the clinical features of this disease, by such a tie as to give them a close relationship, however dissimilar some of their features?" He then proceeded to review what is known of the conditions of the blood, bloodvessels, and vessel-regulating mechanism, in cases of purpura; and considered that, whilst there are proved or probable alterations in the blood, bloodvessels, and nervous system in certain cases, no one of these is sufficiently constant to unite all forms of purpura in such a way that we can regard them as different varieties only of one common process; and as there is no etiological factor common to them, he concluded that we cannot assign to purpura the position of a clinical entity. The next question he asked was, "Is the hæmorrhage that is the one characteristic of purpura an isolated phenomenon, or do we not see hæmorrhage associated with various other morbid processes going on in the skin and elsewhere?" In this connexion he discussed briefly purpura papillosa, purpura urticans, hæmorrhagic herpes and pemphigus, erythema, etc. For his part he looked upon purpura in all cases as a symptom, not of one but of various morbid states. This view had the advantage that when encountered we have in purpura, as in oedema, jaundice, etc., to endeavour to trace its cause or explain its meaning. After some remarks as to influences combining to produce purpura, he passed on to say that, regarding purpura as a symptom, it was still useful to attempt an arrangement of the cases in which it occurred. He alluded to a classification proposed by Dr. Du Castel, but himself suggested the following arrangement:—1. Hæmic purpura. 2. Toxic purpura. 3. Mechanical purpura. 4. Neurotic purpura. Under the head of hæmic purpura he would place all cases in which there is some known or supposed blood disorder, as the specific fevers, idiopathic, splenic, and other forms of anæmia, leucocythæmia, scurvy, jaundice, etc. In the category of toxic purpura (drug purpura) he would place all cases in which purpura arises from adventitious matters entering

the system. Though such matters, no doubt, entered the blood, we do not know in many cases whether they act directly through the blood, through the nervous system, or in some other manner. Besides, etiologically, they are so distinct that it is advantageous to separate them from class 1. Under purpura from mechanical causes he would place that arising in connexion with feeble circulation, purpura from varicose veins, paroxysms of coughing, thrombosis of venous trunks, and (probably) senile purpura. In the category of neurotic purpura he would place all cases in which the nervous system is primarily at fault, as tabetic purpura, purpura in connexion with disease of the central nervous system and neuralgia, purpura urticans, and neurotic eruptions becoming hæmorrhagic.

In my last letter I briefly mentioned the discussion on the treatment of Intestinal Obstruction. Mr. Rushton Parker led off, and was followed by Dr. Waters, Mr. Morgan, Sir Spencer Wells, Mr. Gould, and many others. The value of Plaster-of-Paris Bandages in the treatment of recent fractures was introduced by Mr. Heath; while Mr. Croft demonstrated a ready mode of applying them. On Thursday afternoon the discussion on Surgical Diseases of the Kidney, and the operations for their relief, was opened by Mr. Clement Lucas. The following is an abstract of the paper. His contention was that all one-sided disease was amenable to surgical treatment. He commenced by alluding to the new interest which was awakened in these diseases by Professor Simon, of Heidelberg, and spoke of the rapid growth and recognition of renal surgery as the most remarkable occurrence of this decade. Casting a glance over the various diseases of the kidney, he said it was evident that those affections which attack equally the two organs (such as the various degenerations included under the generic term of Bright's disease) must ever remain outside the province of surgery, but most of the diseases which were unilateral would be found to lie within the region of surgical relief. Painful movable or floating kidney was a disturbance of a mechanical nature, only to be treated by mechanical means. Probably, simple exploration through the loin, and replacement of the kidney in position, would be found sufficient to cure the greater number of cases; the adhesion resulting from the healing process serving to bind the kidney in position. A slightly severer operation was that of Dr. Hahn, called nephroraphy, which consisted in exposing the kidney through the loin, and stitching its capsule to the margins of the wound. Eight cases in which this has been performed recovered and were relieved. There might still be cases where the symptoms were of a severe character, or where other means had failed which would justify nephrectomy. Martin, of Berlin, had extirpated six floating kidneys, operating each time through the peritoneum; four were cured and two died. Hydronephrosis was another affection which admitted of surgical relief. After discussing the origin of the two forms, congenital and acquired, the author advised first aspiration, then tapping and drainage through the loin, the cyst being exposed and its edges being stitched to the margins of the wound. Should the sinus fail to close, the contracted cyst might be excised through the loin. These cases had been mistaken for ovarian tumours, and operated upon as such. Some might think it advisable to remove these dilated kidneys by abdominal section, but the plan recommended was safer. Isolated cysts of the kidney should be aspirated, and, this failing, should be drained through the loin. The kidney structure was not diseased, except by pressure. Hydatids of the kidney were rare, and had a tendency to discharge through the pelvis. Aspiration or syphon-tapping was usually sufficient to effect a cure. Pyonephrosis, which resembled hydronephrosis anatomically, but contained pus instead of watery fluid, if one-sided, was to be relieved by surgical means. The double pyelitis, with distension and suppuration resulting from stricture, enlarged prostate, and calculus, was inappropriately named "surgical kidney." He suggested the term "reflux" pyelitis, would better express this condition. When pyonephrosis existed on one side only there was some obstruction to the ureter. Calculus and strumous pyelitis were frequent causes of one-sided pyonephrosis. Pyonephrotic tumours had been successfully removed by abdominal section, but the risk of drawing out a bag of pus through the peritoneal cavity was such that the author could not recommend this proceeding. He advised that the abscess-



cavity should first be opened through the loin, disinfected, and drained, which would be sufficient to cure a large number. Should a sinus remain, the kidney might be excised through the loin. In this case the capsule should be left behind, otherwise the peritoneum or colon was liable to be torn open in endeavouring to separate the adhesions. Out of twenty-eight cases in which nephrectomy had been performed for pyonephrosis there had been seventeen recoveries and eleven deaths; but it was a thing most worthy of note that in six of these cases the abscess-cavities had previously discharged themselves through the loin, and all these six recovered. Calculus of the kidney would most often suggest operation. The diagnosis was the chief difficulty. Strumous kidneys would be often explored on the supposition of calculus, but antiseptic exploration through the loin was a trivial operation, the wound healing primarily without rise of temperature. Two cases explored by the author were quoted in illustration. Several cases of nephro-lithotomy were published in the *Clinical Society's Transactions*, and the operation had been twice successfully performed in Guy's Hospital during the present year. Neoplasms of the kidney, when large, would have to be removed through the peritoneum. In these cases, Langenbuch's excision on the outer edge of the rectus was the best. Injuries to the kidney, though not included under the title of this paper, were alluded to as occasionally suggesting nephrectomy. After entering into details on certain points in the operations, the author said a combination of two incisions (which he had employed) would be found to give the most room when operating through the loin—viz., an oblique incision parallel with the last rib, higher than the colotomy incision, within about half an inch of the rib; and a vertical incision on the outer edge of the quadratus lumborum, commencing at the upper edge of the last rib, and extending to the iliac crest. In conclusion, he urged that antiseptic exploration of the kidney through the loin was a simple and not at all a dangerous operation, which may be undertaken without anxiety in any case where a calculus is suspected; that it is generally safer to tap and drain fluid tumours before proceeding to remove them; that, when nephrectomy is decided upon, the extraperitoneal operation through the loin should always be chosen for any tumour it is possible to withdraw through the limited space at disposal; finally, if this course be adopted, the transperitoneal operation will be reserved for large solid tumours, and perhaps some floating kidneys.

Many other papers of interest were also read. Among them may be mentioned one by Mr. Malcolm Morris on the advantages of Scarification over Scraping in the Treatment of Lupus; and one on the Removal of the Tongue, by Mr. Morratt Baker.

In the Section of Children's Diseases, Dr. Gee opened the proceedings by a brief review of the earliest literature on this subject. It appeared to be very scant; only one or two works being of any consequence, or held in any estimation at the present time—of these Glisson's "*De Rachitide*" was by far the most important. Dr. Gee thought one fact stood out more prominently than any other, viz., this: that none of his authors appeared to have been a specialist. He congratulated himself on being connected with an adult as well as a children's hospital, and believed that his knowledge of children's diseases was more extensive in consequence. Dr. Barlow opened a discussion on Rheumatism and its allies; he took a broad view of the subject, and directed attention to the less serious sequelæ as very important. Dr. Ashby followed with a paper on Scarlatinal Rheumatism, contending that the symptoms were those of pyæmia rather than true rheumatism. The discussion occupied the whole afternoon. Dr. Ballard introduced the subject of Infantile Diarrhœa—truly a very important and pressing subject just at the present time. Dr. Gee also contributed a suggestive paper on Albuminous and Purulent Urines in Children. The moral was, always to examine the urine when any severe but obscure symptoms developed themselves. Dr. Bury read a case of Osteomalacia in a child. The signs of ordinary rickets were almost entirely absent. The author seemed to regard the case as true osteomalacia, and identical with the disease as seen in adults. Mr. Baker opened a discussion on Epiphysal Necrosis and its consequences. He said that he would confine his remarks to the subject of inflammation and necrosis of the epiphyses of long bones and the

neighbouring tissue, leaving out of consideration, however, their inflammatory or other conditions which are the result of specific diseases—as rickets, syphilis, or scurvy. He suggested the following as suitable points for discussion:—

1. The frequency of acute inflammation and suppuration within joints (especially the knee-joint) as a result of necrosis of an epiphysis, or the bony texture in its neighbourhood.
2. The good result of free incision into the joint with efficient drainage.
3. The simulation of necrosis of the shaft of a long bone by tracking of pus beneath its periosteum for some distance from its origin, in disease of an epiphysis.
4. The frequency with which necrosis of the epiphysis of the head of the femur is the cause of hip-joint disease; and the special propriety of excision at a later stage in such cases.
5. The difficulties in regard to diagnosis in cases of disease of an epiphysis, attended by secondary inflammation of the neighbouring joint, but without direct communication between the abscess in the epiphysis and the interior of the joint.
6. The relation between subperiosteal suppuration and necrosis.

In the Pathological Section, Dr. T. H. Green's opening address chiefly had reference to the Pathology of Phthisis—the relationship of germs as causes, and the social questions which naturally arise out of this. Dr. Dreschfeld opened a special discussion on Micro-organisms. He contended that in some cases the organisms were clearly the *fons et origo* of disease, while in others they only appeared to develop in the course of disease. Mr. Symonds opened a discussion on Chronic Inflammations in Bone. A reference to the subjoined abstract will show how he considers that the bone-substance remains passive under all circumstances, while the periosteum is the source of the diseased process:—The author first explained that the paper had arisen out of a study of thickened bones found in museums, and the object was to inquire into the causes which led to this change, and to single out from the numerous examples variously described as hyperostosis, osteoporosis, hypertrophy, etc., such as could be unmistakably referred to recognised causes, and to use the information thus acquired for the elucidation of the more obscure affections. In order to facilitate the inquiry, the long bones were first considered; afterwards those of the cranium. Amongst causes in the first group, chronic simple inflammation was taken as the most frequent, and the manner in which enlargement was brought about was explained. Reasons were stated, in support of the view that all increase in diameter was due to a surface addition from the periosteum, in opposition to the generally received opinion that a bone could be also enlarged from expansion. Copies of Mr. Stanley's drawings, plates from Sir James Paget's work on Pathology, and specimens from the museum at Guy's Hospital (kindly furnished by the curator, Dr. Goodhart) were used to illustrate the subject. The disappearance of the compact tissue was explained as due to its cancellation from osteitis, or to its physiological remodelling as a consequence of having become embedded by new bone. It was urged that the use of the term "expansion," as applied to the effect of inflammation in bone, was misleading, and based upon an incorrect interpretation of the appearances found. The causes leading to enlargement in long bones were stated to be—1. Chronic inflammation due to syphilis, struma, and irritation from a sequestrum. 2. Chronic congestion, and subsequently chronic inflammation, of the periosteum under an ulcer; and, as coming under the same heading, the enlargement occurring in chronic œdema, as in obstructed lymphatics, and in the elephantoid condition seen in the leg. 3. Hypertrophy. This, it was suggested, accounted for but few examples, except those of elongation; and this effect was suggested as due rather to an epiphysal overgrowth. 4. Osteitis deformans. This disease, it was thought, differed from common inflammation in the mode in which it produced its effects, and was suggested as owning a method of increase peculiarly its own. It was suggested that no specimens could be attributed to the effect of rickets or osteomalacia. The various forms of thickened crania were divided into four groups. In the first were placed those with a normal structure, but thick; the external and internal tables thin and distinct. Specimens considered by Paget to illustrate concentric hypertrophy, but suggested as representing either the adult rachitic skull or one in which early closure of the sutures occurred from an arrested growth of the brain. In the second, the skull found in osteitis deformans. So far as



is known, this is the only disease leading to the production of the appearances found. Reasons were given for denying that osteomalacia ever produced such appearances, and it was suggested that in these cases the thickening of the skull was a coincidence of a normally thick skull with osteomalacia. In the third group were placed those thick skulls of greater density than any of the preceding, and showing besides nodular outgrowths on the inner table. In the last, those associated with a similar change in the facial bones, and known as leontiasis ossea. To this, it was suggested, Mr. Bickersteth's specimens probably belonged.

I have not nearly exhausted the list yet—but I have already far exceeded the limits of a letter. It will be seen that work is the order of the day at these annual meetings. I only regret my inability to have been in all the sections at the same time.

After the serious part of the work was concluded, a day was, as usual, devoted to pleasure. Excursions to Chester and Eaton Hall, to Conway and Llandudno, to Southport and Blackpool, and to Lancaster, offered a pleasing variety of attractions. Some excursions, I believe, attracted larger numbers of visitors than had been arranged for, but all who went found themselves welcome. They were conceived in admirable spirit, and it was the more to be regretted, therefore, that the details of carrying them out were in some respects faulty. There was a want of punctuality, as well as a general deficiency of oversight and leadership, which made itself especially felt on starting. Thus, in one of the river excursions, owing to the want of punctuality, the tide had run out so far that the steamer could not get into dock, and the announced object of the party was defeated. I do not refer to this in any ungrateful spirit, but in the hope that in future excursions punctuality will be insisted upon if a few visitors who are unpunctual are left behind, this will be better than to disappoint the whole party. I regret to find that an accident occurred in connexion with the Conway excursion. Some men who were about to welcome the party with a *feu de joie* on their arrival at Conway got seriously damaged. In attempting to reload the cannon while it was still hot the powder exploded. One man lost his arm, and another his sight in part, while others were less seriously injured. The visiting party subscribed forty guineas towards their immediate wants. The weather during the whole meeting was simply charming, and added much to the pleasure of this very successful meeting.

**CONTUSIONS OF THE BRAIN.**—Dr. Lidell, late Surgeon to Bellevue Hospital, in an elaborate practical paper upon this subject in the July number of the *American Journal of the Medical Sciences*, discusses this large and very important class of injuries. While much is said in our text-books on the subject of cerebral concussion—of its dangers and importance—but small, if any, mention is made of the contusions of the brain, which so very often complicate the concussions, and impart to them whatever of gravity, be it much or little, that they possess. And still less mention is made of contusions of the spinal cord. No wonder, then, that bruises of the brain-structure and spinal-cord substance occur much more frequently than is generally supposed, that the relationship which exists between these injuries and concussion is not well understood, and that the bruises of those organs often escape even all suspicion during life. That slight or even moderate concussion of the brain sometimes, perhaps not infrequently, occurs without being complicated with contusion of the brain, Dr. Lidell does not doubt. Contusion of the brain is therefore, he believes, not synonymous with concussion; but, at the same time, all the evidence now collected tends to prove that the severe instances of cerebral concussion are always complicated with cerebral contusion. Concussion, however, derives its chief importance from the fact that it is very often associated with contusion; and, in examining a case of cerebral concussion, the question of most importance for the surgeon to decide is whether or not cerebral contusion is also present. These are points of doctrine which practically have much interest for patients as well as practitioners because of the influence they are likely to exert in procuring a correct diagnosis and a wise treatment; for in the disorders of no other parts of the body is it more sure that an accurate diagnosis begets a wise plan of treatment than in those of the brain and spinal cord.—*New York Med. Jour.*, July 14.

## ARMY MEDICAL SCHOOL, NETLEY.

THE summer session of the Army Medical School terminated on Monday, the 6th inst., when the prizes at the disposal of the Senate of the School were handed to the successful competitors, before a large assembly of distinguished officers and other visitors, by Sir Galbraith Logan, K.C.B., who was Director-General of the Army Medical Department between the years 1867 and 1874. During the period Sir Galbraith Logan occupied this high official position, he always exhibited a strong personal interest in the School, and took an active part in its administration; and, as he mentioned in commencing his address, when he acceded to the request of the Senate to distribute the prizes, and to deliver some remarks on the occasion, he had been chiefly prompted to do so by the strong desire he felt to show publicly the great value he still attached to the establishment.

At the commencement of the proceedings, the lists of the surgeons on probation who had passed successfully through the courses of special instruction for the Medical Departments of Her Majesty's British and Indian Armies were read by Surgeon-General Longmore, C.B., together with various reports on the results of the examinations intended for the information of the Secretaries of State for War and India.

A notable feature of the present session has been that all the prizes, with a single exception, have been carried off by one of the surgeons on probation—Mr. J. M. Young, of the Indian Medical Service. This gentleman, we are informed, acquired his professional education at Glasgow and Vienna. In handing to Mr. Young, in succession, the Herbert, Martin, Parkes, and Montefiore medals and prizes, Sir Galbraith Logan made some happy references to the special advantages that might be hoped for, to the public service, from the superior ability which Mr. Young had manifested in the various branches of professional knowledge which the rewards represented; and he dwelt also with much feeling on the exalted characters and distinguished services of Dr. Parkes and Sir Ranald Martin, with both of whom he had been on terms of intimate friendship, and to perpetuate whose memories the medals bearing their names had been founded. He said he could not imagine two nobler patterns of life to set before the young surgeons for imitation than the lives and careers of those eminent members of the medical profession in the two branches of the military service, the British and the Indian, to which Dr. Parkes and Sir Ranald Martin had respectively belonged. We cannot place before our readers the whole of Sir Galbraith Logan's address, which extended over a wide range of subjects, and was listened to with marked attention, but one fact that he mentioned in the course of his remarks has not perhaps been noticed generally, and to the degree which it deserves, though it has been dwelt on in our pages. In speaking of the excellent manner in which the Medical Service was conducted during the recent campaign in Egypt, as shown by the professional results, and when particularly alluding to the changes that had taken place in the manner of treating Egyptian ophthalmia, Sir Galbraith stated that, as was now well known, not a single case of blindness had resulted from the late campaign. On the other hand, in the earlier campaign under Sir Ralph Abercrombie, not only was an enormous expense entailed on the State in pensioning the very large number of soldiers who became deprived of sight from the disease, but, beyond that, the ophthalmia acquired such a pernicious character, and proved so infectious among the men who escaped from the extreme result of blindness, that, as regarded some of the regiments which served in that war, the disease was not eradicated from them for five-and-twenty years afterwards. Thus a great additional cost was entailed on the country, both in the disability for service and necessary hospital treatment to which the persistence of the disease led, as well as in the invaliding and discharge from the army which its consequences in numerous instances rendered unavoidable.

After the proceedings in the lecture-room of the School were concluded, the company was entertained at luncheon by the officers of the Army Medical Staff in their spacious mess-room.



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, AUGUST 2.

*Vaccination.*—In reply to a question from Mr. Hopwood as to the propriety of vaccinating within a few hours after child-birth, Mr. G. Russell said that the motion had been referred by the Guardians of St. Pancras to a committee, who had stated, in their report, that they regarded the question as one solvable by medical men only, and they suggested a reference to the Local Government Board. The Board of Guardians approved the report, and carried out the suggestion; and the Local Government Board had replied that they had nothing to add to their letter addressed, in June last, to the Resident Medical Officer of the St. Pancras Workhouse, which was to the effect that, while providing for the inmates of the workhouse in its several departments such revaccination as is proper in order to guard each department from danger of small-pox, it is undesirable to allow the accidents of the lying-in room to become confused in the minds of patients with the results of vaccination; and that the medical officer would do well to hold this consideration in view, as affecting the question of revaccinating women within a short period after labour.

*Cholera Hospitals for Ireland.*—In reply to a question from Colonel Nolan, Mr. Trevelyan said: It rests with the several sanitary authorities, and not with the Local Government Board, to provide temporary hospitals for cholera patients, and the Board have not portable hospitals at their disposal, nor have they power to take sites compulsorily for such hospitals. The matter had been brought under the notice of the sanitary authorities by a recent order of the Local Government Board.

*Diseases Prevention (Metropolis) Amendment Bill.*—Sir C. Dilke, in introducing this Bill, which was read a first time, said the main object of it was to provide a second central body for dealing with cholera and other infectious diseases, in addition to the local authorities, of which there were thirty-eight in the metropolis. He was glad to say that authority was the Metropolitan Asylums Board. The general health in the country was very satisfactory, but in London there was a large mortality from diarrhoea among children from one year upwards. It was desirable, therefore, that additional precautions should be taken, as the danger of cholera would not be passed until about six weeks from the present time.

FRIDAY, AUGUST 3.

*Increase of Venereal Disease in Naval and Military Hospitals.*—In reply to Mr. Hopwood, the Marquis of Hartington said it was not easy to fix the naval population on which hospital ratios at Plymouth have to be formed, as it fluctuates from day to day by the arrival and departure of vessels. But his statement on July 30 was based on the following actual returns. As regards the military forces, the admissions to hospital for venereal diseases in the ten weeks ended July 20, 1883, were 183, on a force of 2859; while for the corresponding ten weeks of 1882 the admissions from the same causes were 116, on a force of 2457 men. With reference to the Navy, the return could not be procured at once by weeks, but it was found that on July 21, 1883, there were 121 venereal cases in hospital, on a force of 7309; while on the corresponding day of 1882 the number was 47, on a force of 7334. The total admissions to hospital for military patients for the ten weeks was larger in 1883 than in 1882, the number rising from 312 to 460, the venereal patients accounting for 67 out of the increase of 148. The total in hospital as regarded naval patients similarly increased, from 463 in 1882 to 357 in 1883, the venereal patients accounting for 74 out of a total increment of 94.

MONDAY, AUGUST 6.

*The Water-Supply of London.*—In reply to a question from Mr. Broadhurst, Sir C. Dilke said that the number of services of the New River Company on the constant supply system is 19,464 out of a total of 138,650, and is practically confined to Shoreditch and parts of the City. All new houses in the district are required to be provided with water-fittings adapted for the constant supply system. The Local Government Board were not empowered to compel the Metropolitan Board of Works to act in the matter. He added that the

total number of supplies to houses, etc., by the London water companies is 653,000, and that the houses having the constant service are about one-third of that number. A further question on the subject was put to the chairman of the Metropolitan Board of Works, who replied that the Board had not called on any of the water companies to give a constant supply, because it can only be given subject to regulations which the Board consider unnecessarily expensive and harassing to the owners of houses. But the Board had never offered any obstacle or objection to a water company introducing the constant system into its district whenever circumstances appeared to render it desirable.

*The Pollution of the River Thames.*—In answer to a question from Mr. Firth, Sir C. Dilke said that the statement in the *Nineteenth Century*, to the effect that the water supplied by five of the London water companies consists of Thames water mixed with the sewage of more than half a million of human beings, bears the signature of Percy Faraday Frankland, not of Professor Edward Frankland, the analyst of the Local Government Board. The Conservators of the River Thames state in their last report that the Thames and its tributaries within ten miles of the river are placed under constant supervision, in order that any effluent consisting of sewage or of offensive and injurious matter may at once be detected and stopped. The towns on the Thames above the inlets of the water companies which supply the metropolis have spent large sums in diverting their sewage, and that part of the river may be considered practically free from sewage pollution. The Local Government Board had referred to the annual reports made to them by Dr. Frankland for several years past, but did not find that in any of them he had stated that "minute organisms, calculated to promote zymotic disease," are to be found in the water supplied by the London water companies, and that, in order to avert another epidemic of cholera, "the rivers Thames and Lea must be wholly abandoned as sources of water-supply." The Board found that on two occasions only in 1882 were living organisms detected by him; and he stated that this showed increased care on the part of the companies in the treatment and filtration of water.

*Overwork of Brain and the Increase of Lunacy.*—Mr. Leighton asked the Vice-President of the Council whether he could state on the authority of the Lunacy Commissioners whether there had been during the last ten years a material increase of brain diseases and lunacy among the children of schools and teachers in schools.—Mr. Mundella replied: He had asked the Commissioners, and they said that children sent to asylums are usually idiots, and that it is only occasionally an insane child is met with. The number of children under fifteen admitted, so far from increasing of late years, has fallen from 306 in 1872 to 286 in 1882, notwithstanding an increase of two millions and a half to the population in the interval. So far as teachers are concerned, the Commissioners referred him to their report of last year, which states that of the group described as teachers, schoolmasters, schoolmistresses, governesses, professors, and lecturers, out of 127,140 persons classed under this head in 1871, 154 only were committed to asylums in 1881. This is a lower proportion than in almost any other profession. The clergy, the legal and medical professions, the Army and Navy, civil engineers, and others all showed a much higher average. Out of 746 teachers applying to the Education Department for pensions since 1875, incapacitated from continuing their profession, 24 only are returned as suffering from brain affections in any form. The statement made by him on a former occasion—viz., that the death-rate of children between five and fifteen years of age had fallen fully 19 per cent. since 1870, and that the death-rate from brain diseases was 0.5 per 1000—had been incorrectly reported, the latter rate having been put as 5 per 1000.—Mr. Donaldson-Hudson asked whether the Vice-President would consider the expediency of making such modification in the new Code as would admit of a percentage of children being excused examination, without diminishing the grant to the whole class, in cases where some of the children are naturally incapable, and where it is injurious to their health to be pressed forward for examination.—Mr. Mundella, in reply, said: The Code, as it stands, is more fair and more liberal than the proposal made, as it allows any number of children to be withheld by managers from examination when a reasonable excuse can be established. If a fixed percentage were laid down, it might work unfairly in different



schools. In the instructions to Her Majesty's inspectors of schools, as to the scholars who may be withheld from examination, all that is reasonable and just both to teachers and scholars is, I think, provided for.

**Vaccine Lymph.**—In reply to questions on this subject from Mr. A. O'Connor, Mr. G. Russell said: Government have nothing to do with any lymph but that supplied from their own establishment. This is of two kinds—the one collected from children's arms by approved vaccinators in various parts of the country, and examined at the Board offices; the other cultivated from calf to calf at the Board's station in Lamb's Conduit-street. These are known as the humanised lymph and the animal lymph (of the Establishment) respectively. Watch is always kept for every indication of the quality of the lymph supplied. No reason appears for supposing that any variety of it can cause any disease except vaccinia, or any other result than to protect from small-pox. Public vaccinators are required, under penalties, to keep a record of the source from which they obtain their lymph. Government do their best to secure that all lymph they supply shall be free from suspicion; and I do not see that there could be any more positive "guarantee" of its purity.

**Honours to the Medical Profession.**—Replying to a question from Colonel King-Harman, Mr. Gladstone said: There are three medical bodies in this country—one in England, one in Scotland, and one in Ireland. It is true that in England there have been recently conferred upon two distinguished gentlemen of the medical profession the honour of baronetcies, and upon one gentleman of distinguished position the honour of knighthood. In Ireland one distinguished member has received the honour of knighthood; and in Scotland there has been no honour at all. But great efforts have been made, and further efforts are in progress by means of a Bill in this House, to make the profession in the three countries one in standard, and one in authority. We attach great importance to that Bill. We regard the profession as one, and the question of the nationality of the persons selected for the honour is a secondary consideration, to which we can give nothing but a secondary importance. I do not, in advising the Crown with respect to honours of this kind, proceed upon my authority alone, but I endeavour to inform myself by very full consultation with those who are known and regarded as the heads of both the medical and the surgical branches of the profession—heads not in a formal sense, but as probably being the most eminent persons in those branches. It was upon full consultation with them that I advised the Crown on the recent occasion. Mr. Gladstone further observed that knighthood is a very considerable honour, being held by the judges of the land and by the law officers of the Crown.

TUESDAY, AUGUST 7.

**The Burial Acts.**—Mr. Richards asked the Home Secretary whether, considering the difficulties experienced by local authorities in providing new cemeteries, he would next session introduce a Bill to amend the Burial Acts.—Sir W. Harcourt said that nobody was more conscious than he was of the difficulties of attempting to settle this question; the difficulties came before him every day. He hoped that in the course of next session something would be done towards the settlement of a question felt by everybody to be now in a most unsatisfactory state. He would carefully consider the matter, and see how far the Government could endeavour to deal with it.

**The Diseases Prevention (Metropolis) Bill.**—The report of this Bill was received; and the Bill was read the third time

**PATHOGNOMONIC SIGN OF FRACTURE OF THE CERVIX OF THE FEMUR.**—Prof. Bezzi, after showing, in the *Spallanzani*, the difficulties and uncertainties which often attend the diagnosis of this accident, observes that at the Milan Hospital a traditional practice exists of exploring, whenever fracture of the neck of the femur is suspected, the short space between the trochanter and the crest of the ilium. In place of the considerable resistance which is there produced in the sound limb through the tension of the tensor muscle of the fascia lata, there is found, when the injury has occurred, a deep depression, due evidently to the diminution in the tension of this muscle, owing to the approximation of its points of attachment.—*Presse Méd. Belge*, July 29.

## FROM ABROAD.

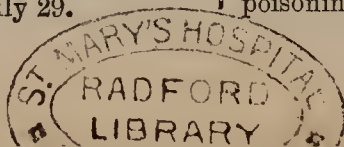
### CHLORAL POISONING.

IN a clinical lecture delivered by Prof. Da Costa at the Pennsylvania Hospital (*Phil. Med. Times*, March 24), after describing the case of a man who had taken seven drachms of chloral, he proceeds:—

"What are the remedies to be applied in acute chloral poisoning? They are principally designed: (1) to sustain the action of the heart, such as ammonia and brandy; (2) to keep up the breathing by artificial respiration; (3) to keep the patient warm; and (4) to use electricity as a cutaneous stimulant. Thus far you would treat a case as an ordinary one of narcotic poisoning. But is there no remedy that will counteract the depressing effect of the chloral upon the nervous centres, and particularly the respiratory centre? Yes; the remedy for this purpose is strychnia, which antagonises the chloral. It may be used hypodermically: one-sixtieth of a grain every three hours at first (and it would have been given oftener in this case, but it was not needed). Strychnia is the physiological antidote: it stimulates the centres which have been depressed. When recovery takes place it is usually rapid.

"A few words on the subject of chronic chloral poisoning may be of interest. Since the introduction of this valuable but seductive remedy, people have gradually learned that chloral produces sleep, and relieves the condition of "nervousness" or restlessness that is so common a cause of insomnia; and they now resort to it just as they do to opium, to get relief from any inconvenience. In this way they form a chloral habit that may be as injurious as the opium habit. Chloral, when it is thus taken for a length of time in ordinary or small doses, will give rise to peculiar symptoms which you should be able to recognise. These symptoms are principally indicative of disorder of the nervous system and the circulatory apparatus. As these features are peculiar, and of general interest, I will discuss a few of them with you. First let us consider this question: Can a man become habituated to the use of chloral as he may to the use of morphia? There is a good deal of difference of opinion among observers, and, I think, a great difference, in this regard, in individuals. It has been my experience to find in some people great susceptibility to chloral, which does not pass away. Some persons are always affected by small doses, while others require the amount to be increased in order to keep up the effects, until enormous doses are used. [A case was referred to in which the prolonged and increased use of chloral gave rise to all the symptoms of delirium tremens, showing that in some persons the system becomes habituated to larger and larger doses of chloral, the smaller doses failing to produce the desired effect.]

"Among the more striking features of chronic chloralism is muscular weakness, which is particularly manifested in the legs. There is such marked debility, that in attempting to walk the patient appears to be paralysed. There is no special group of muscles that is affected, but there is a general loss of power in the limbs. This paresis may also manifest itself in the upper extremities. As regards other symptoms, there are some in connexion with the circulation and nervous system that deserve discussion. There is feeble action of the heart, with cold extremities, and a tendency to profuse sweating. The pulse is accelerated, but weak; arterial tension is reduced. The nervous phenomena are very remarkable. Active delirium, like that from alcohol, has already been mentioned, but there is also a less marked condition of the mind which is even more significant. The patient becomes constantly dull and dreamy; the will-power seems completely wanting; the judgment and intellectual faculties are impaired. The vaso-motor centres lose, to a certain extent, their functional powers. This is partly shown by the condition of the cutaneous circulation; the extremities become cold and blue, and there is also a strange tendency to cutaneous eruptions. I have noticed erythematous blushes come and go with great rapidity, and I have seen papular eruptions more or less red and itching—not always the same. Therefore, in addition to the alteration in secretions (the perspirations already referred to) we may have various inflammations of the skin as a result of chronic chloral poisoning. Sugar may appear in the urine, although it is





not constant—at least, I cannot say that I have found it so. In some cases the bodily nutrition is well maintained, and the appetite remains good; but the contrary is the case of others. Digestion is not materially influenced, except that there may be relaxation of the bowels in place of the constipation accompanying opium.

“What should be the treatment of chronic chloral cases? Suppose that a patient like this says that the habit is growing upon him, and comes to you for advice, what course should you pursue? I would answer that you must reduce the dose gradually. As large doses are only given exceptionally, there will be less difficulty on this score than with opium; but as you reduce it, I would strongly advise you to give strychnia or nux vomica, for its effects on the nervous system. It antagonises the effects of the chloral, and acts at the same time as a tonic. Those nervous centres which are reduced in their activity by the paralysing effects of the chloral are stimulated by strychnia. If you use strychnia, you may stop the chloral almost at once, without any bad effects being observed.”

## GENERAL CORRESPONDENCE.

### THE SANITARY LESSONS OF INDIAN EPIDEMICS.

LETTER FROM INSPECTOR-GENERAL R. LAWSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—While thanking you for the readiness with which you inserted my letter of July 26 in the *Medical Times and Gazette*, I deem it necessary to offer the following remarks on one point in the observations you appended to it. You refer me to page 101 of the Report on the Cholera Epidemic in the United States in 1873, to show that the disease at New Orleans was not of the type common in India, or which now rages in Egypt, but resembled the severe diarrhoea which prevails everywhere in hot weather among insanitary surroundings; and from this you consider that not only my conclusions, but my premises, fall to the ground. Now, the disease commenced in February, and up to the beginning of April, when the weather could not be called hot, there had been “thirty-one cases, of which two (2) were recoveries” (Report, page 97). This does not indicate a slight form of disease, to begin with, whatever it became subsequently as the usual season for diarrhoea came on.

Again, as to the relation in which the first cases stood to the subsequent spread of the disease, and as to its nature, I refer you to page 1 of the Report, where it is stated that in 1873 cholera prevailed throughout the valley of the Mississippi, commencing at New Orleans, from which it extended northwards, and became epidemic at all points attacked. The vast majority of the medical men who were engaged in combating the disease were unanimous in pronouncing it Asiatic cholera. A second class—respectable, both numerically and intellectually—recognised the disease to have been cholera in a fatal form, but of American origin; while others regarded it as a pernicious bilious or malarial form of fever. The general consensus of opinion, then, was that the disease was a fatal form of cholera—a conclusion which few who have perused the Report carefully will be inclined to doubt.

These facts place my premises regarding the outbreak at New Orleans beyond question, and I must leave your readers to form their own opinions as to whether my mode of treating these premises, or that you seem to recommend, is most in harmony with the modern spirit of research, or most likely to enable them to clear away the obscurity which now envelopes the mode of origin and of spread of cholera.

I am, &c.,

ROBERT LAWSON,

London, August 6. Inspector-General of Hospitals.

### THE RECENT LUNACY APPOINTMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—The appointment, recently made, of a successor to Dr. Nairne, on his retirement from the Lunacy Board, ought not to be allowed to pass unchallenged in your pages, if for no other reason than that it may not be said in its defence that so great an injustice was not protested against at the time in the columns of the medical journals. The ground

of complaint which is felt by all practising lunacy is this: that the office has been given to one who has not made the subject his study, yet upon whom devolves the duty of ascertaining whether the asylums of this country meet the special needs of the insane, whether those who are confined in them are labouring under insanity, and whether their discharge would prove dangerous to society. Many are the delicate questions which from time to time arise between the superintendents and the patients, in which the character of the former and the interests of the latter are alike at stake, and in regard to which the report of a Commissioner will be of the gravest import. Between seventy and eighty thousand lunatics are now confided to the supervision of the Lunacy Commissioners, and common humanity, one would have thought, might have induced the Lord Chancellor to appoint some physician acquainted with the peculiar necessities of the insane, and familiar with the arrangements of asylums. So long as the British taxpayer has to provide for Commissioners in Lunacy, he may be excused if he demands that well-qualified men should be appointed. Unfortunately, this is not the first time such a mistaken appointment has been made, and, strange to say, this very fact is adduced as a reason—a precedent—for repeating it. It might have been expected that the present Lord Chancellor would have seized the opportunity afforded him of rising to a higher standard, and would have shown that he at least does not think it a matter of indifference to whom the needs of the insane are entrusted. As well might a man ignorant of sanitation be appointed to examine the drainage in a locality where fever has broken out, as a man who has never made lunacy his study be appointed a Medical Commissioner in Lunacy. The audacity of such appointments is only equalled by the boldness of the men who, knowing their ignorance, are willing to seek and take them. Were it not that a gentleman thus appointed voluntarily brings discomfort upon himself, we should pity the Commissioner who, having to visit asylums and criticise the action of their superintendents, must face the resentful antagonism of those who feel acutely having to receive as an inspector one who is unqualified to form a just opinion on the questions which arise affecting their conduct.

I am, &c.,

August 7.

MEDICO-PSYCHOLOGICUS.

THE TAMPON IN PLACENTA PRÆVIA.—Dr. Curtis Smith, of Aurora, Indiana, in a paper in the *Phil. Med. Reporter* (July 14), after adverting to the circumstances in which the tampon is indicated in these cases, goes on to speak of its mode of application. “We have tried several methods. A very good plan is to take small bits of fine muslin and pack them on bit by bit until the vagina will not receive any more, making it very tight. This form is very annoying to remove, because of the necessity of such frequent returns to the vagina for the pieces composing it. A better way is to take long narrow strips of soft muslin and pack it tightly. This is easily removed. Common cotton-wool answers well; also tow, when well cleaned and soft. When a speculum is at hand it should be used, as by it the vulva is protected. But a speculum and long forceps are rarely at hand in cases at the moment most needed. If the tampon material is well soaked in cold water it will have a tendency to check the flow, and the water will fill the meshes so that it will take up less blood. Besides, it can be packed tighter when wet than dry. I have by some of these methods tamponed the vagina so tight that not a drop of blood could escape, and the tampon would not be soiled to half its depth. A tampon of any of these materials will, of course, absorb some blood, but if it is wet when introduced, and packed *very tight*, it cannot absorb much, and will hold the blood until a firm clot forms. I wish again to enter my protest against using the tampon indiscriminately. When we find the os soft or dilated, and the uterine fibre flaccid, this means is a dangerous remedy. But, under the opposite conditions, it is a valuable measure. The india-rubber bag makes a fine tampon, but it is not likely to be at hand.”

HOMŒOPATHIC ADULTERATION.—Prof. J. Edwards Smith has devoted a year to the study and discovery of adulterations in homœopathic medicines! When adulteration strikes the attenuated and gossamer fabric of the *sim. sim. cur. materia medica*, we may well believe that vice reaches every fibre of our social system.—*N.Y. Med. Record*, July 14.



## MEDICAL NEWS.

UNIVERSITY OF LONDON.—Appended is a classified list of the successful candidates at the recent Preliminary Scientific (M.B.) Examination :—

*First Division.*—Evelyn Oliver Ashe, Owens College; Percy Ashworth, (a) Owens College; George Barlow, Owens College; George Black, (a) Guy's Hospital; John Telfer Calvert, Owens College and St. Thomas's Hospital; Henry Johnstone Campbell, (a) Guy's Hospital and private tuition; John Shaw Willes Chitty, Charing-cross Hospital; Herbert Edmund Cuff, Guy's Hospital; Charles Hermann Fernau, University College; Walter Ross Jordan, Queen's College and King Edward's High School, Birmingham; George Edward Rennie, B.A. Sydney, University College; John Lloyd Roberts, Guy's Hospital; Ernest Alfred Sadler, Mason College, Birmingham; Ramon Alexander Sawyer, Guy's Hospital; Thomas Wilson Smith, (b) Guy's Hospital; Ernest Henry Starling, Guy's Hospital; John Price Williams, Owens College; William Griffith Williams, Owens College; Frank Lomax Wood, Owens College.

*Second Division.*—Horatio George Adamson, St. Bartholomew's Hospital; Richard Alcock, Owens College; Launcelot William Andrews, (c) St. Bartholomew's Hospital; Kaikhosro Nasarvanji Bahadurji, University College; Laurence Augustus Baine, (a) Mason College and College of Physical Science, Newcastle-on-Tyne; Robert William Baker, University College; Marmaduke Bannister, Owens College; Wilfred Martin Barclay, Bristol Medical School; Arthur Baxendell, Owens College; James Thomas Bays, University College and private study; George Arthur Berry, Owens College; James Edward Huxley Blake, (a) Mason College, Birmingham; Rubert William Boyce, University College; Albert Edward Brindley, Owens College; William Frederick Brook, St. Thomas's Hospital and private study and tuition; George Percy Brownlow, St. Bartholomew's Hospital; Lewis Thomas Fraser Bryett, King's College; Solomon Bueno de Mesquita, Guy's Hospital; James Joseph Buist, (b) St. Bartholomew's Hospital; Cyril Cecil Barrow Burt, Westminster Hospital; Robert James Carter, King's College; Arthur Morgan Cass, Owens College; George William Chester, University College, Liverpool; Francis William Clark, Middlesex Hospital; Walter Stacy Colman, University of Edinburgh and private study; Cecil Whitehall Cooke, St. Thomas's Hospital; Cecil Howard Cribb, (a) University College and Royal School of Mines; John Cunningham, Royal Infirmary School of Medicine, Liverpool; Edward Deanesly, University College; Edward Meyer de Jong, Owens College; Charles Duer, (a) University College; Arthur Ellis Durham, (a) University College; John Edward Dyer, University College; Henry Augustus Edmonds, (b) Guy's Hospital; Frank Fawcett, St. Thomas's Hospital; John Gardiner, (a) Owens College; Arthur Henry Gault, Owens College; George Taylor Gifford, King's College; John Edwin Gould, (a) University College; Blenman Buhot Grayfoot, University of Edinburgh; George Frederick Grierson, Owens College; Edwin Birchall Hastings, (a) University College; Harold Hebblethwaite, Leeds School of Medicine and Yorkshire College; Philip Henry Hensley, King's College; Sydney Ernest Holder, University College; Harold Johnson, St. Bartholomew's Hospital and private study; Charles Saint Johnston, Mason College, Birmingham; David Thomas Jones, (d) University College of Wales; Herbert Saunders Wansbrough Jones, (a) New Kingswood School; Henry Truman Kelsall, London Hospital; Arthur Beresford Kingsford, University College; Arthur Leche, University College, Bristol; Milton Prentice Ledward, Owens College; John Henry Lightbody, Royal Infirmary School of Medicine, and University College, Liverpool; William Kenneth Mackenzie, King's College; Ludovic William Darra Mair, Epsom College; Morgan John Morgan, University College of Wales; Enoch Moss, Guy's Hospital; Charles Pye Oliver, Charing-cross Hospital; William Theophilus Ord, Bristol Medical School and private study and tuition; George John Padbury, Guy's Hospital; George Dines Parker, (e) University College of Wales; John Porter Parkinson, University College; Edward Posnett, (e) Yorkshire College, Leeds; Llewellyn William Powell, University College; Philip Nicholas Randall, Guy's Hospital; William Halse Rivers Rivers, St. Bartholomew's Hospital; Joseph Crofts Rossall, St. Mary's Hospital and private tuition; Mary Royce, University College and private study; Frank Percy Sarjant, Guy's Hospital; Frank Savery, University College; Guy Bellingham Smith, University College; Nugent Edward Smyth, Mason College, Birmingham; Ernest Hugh Snell, Mason College, Birmingham; G. Whitefield Sutherland, B.A. Sydney, University of Edinburgh and University College; Henry Symonds, St. Bartholomew's Hospital; Frederick Howard Taylor, London Hospital and private study; Stuart Alexander Tidey, St. Mary's Hospital and private tuition; John Herbert Tonking, St. Thomas's Hospital; William Elliot Tresidder, Guy's Hospital; Alfred Herbert Tubby, Guy's Hospital; Edward Hamilton Tuckett, University College, Bristol, and private study; Charles Hazlitt Upham, private study; Alfred Ellis Vaughan, Owens College; Herbert Edmund Vincent, Guy's Hospital; Ernest Ward, (e) Bristol Medical School; Howard Percy Ward, Felsted School and King's College; Henry Edward Whitehead, (a) St. Bartholomew's Hospital; Frank Stanley Wood, Guy's Hospital; John Edwin Wood, B.A., (c) Yorkshire College, Leeds.

*Experimental Physics only.*—Henry Talbot Sidney Aveline, private study; Samuel Frederick Holloway, Guy's Hospital; Frank Arthur Spreat, St. Bartholomew's Hospital and private tuition; John Herbert Stacy, private study; Richard John Stephens, King's College.

*Botany only.*—Joseph Richard Mary Brennan, Owens College.

*Zoology only.*—Leonard Arthur Bidwell, St. Thomas's Hospital.

(a) These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

(b) These candidates have postponed their examination in Zoology.

(c) These candidates have postponed their examination in Chemistry.

(d) This candidate has postponed his examination in Botany.

(e) These candidates have postponed their examination in Physics.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 2 :—

Beard, Thomas, Bath-street, Birmingham.  
Hardy, Walter Mitchell, Buttershaw, Bradford.  
Hendley, Harold, West London Hospital.  
Ley, Herbert, Westbourne-terrace, W.  
Miller, Thomas Hugh, Woburn, Bedfordshire.  
Pring, Arthur, Barnes, S.W.  
Pullin, Bingley Gibbes, Holford-square, W.C.  
Rây, Dwarkâ Nâth, Bengal.  
Stace, Arthur Frank, Bayswater, W.  
Steedman, John Francis, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Burns, Alfred Hugh, St. Thomas's Hospital.  
Cropley, Alfred, London Hospital.  
Kelson, William Henry, St. Thomas-road, S.E.

## DEATHS.

MCCLELLAND, JOHN, M.D., of 6, Lancaster-terrace, Regent's-park, W., at 29, Marina, St. Leonards-on-Sea, on July 31.

SOUTHAM, THOMAS, M.R.C.S., L.S.A., at Thorpe-road, Peterborough, on August 2, aged 74.

## VACANCIES.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be doubly qualified and on the Medical Register. Applications, stating age, with testimonials, to be sent to the Chairman of the Medical Board on or before August 18.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary at the rate of £100 per annum, with board, lodging, and washing. Candidates must possess a medical and surgical qualification and be registered. Applications, with testimonials, to be forwarded to the Secretary on or before September 1.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Candidates must be duly qualified men, registered both in medicine and surgery, and not over thirty years of age. Applications, with testimonials, to be sent to the Medical Superintendent (from whom all further information can be obtained), on or before August 20.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Junior Resident Medical Officer. (For particulars see Advertisement.)

HARTLEPOOL HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary £100 per annum, with board, lodging, and washing. Applications and testimonials to be sent to J. Rawlings, Esq., 13, Cliff-terrace, Hartlepool, not later than August 18.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, LIVERPOOL.—Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be duly qualified. Applications, with testimonials, to be sent to Robert Calder, Secretary, 4, Commercial-court, 17, Water-street, Liverpool (from whom any further information can be obtained), on or before August 15.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Salary £70 per annum, with board, lodging, and washing. Candidates possess a registered surgical and medical qualification. Applications, with qualifications and testimonials, to be sent to the Secretary, on or before August 15. The election will take place on August 23.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\*\* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

Cockermouth Union.—Mr. Thomas Sadler Douglas has resigned the Workington District: area 16,235; population 19,854; salary £30 per annum.

Peterborough Union.—The offices of Medical Officer for the Second District and for the Workhouse are vacant by the death of Mr. Thomas Southam: area 12,371; population 22,592; salary by fee per case. Salary for Workhouse £45 per annum.

Ross Union.—Dr. C. C. Cocks has resigned the Fourth District: area 15,110; population 2901; salary £76 10s. per annum.

## APPOINTMENTS.

Henley Union.—George Owen Willis, L.R.C.P. and L.R.C.S. Edin. L.F.P. & S. Glasg., to the Greys District.

Peterworth Union.—Ralph Jean MacDermott, B.A., M.B. and M.C. Trin. Coll. Dub., and L.M., to the Third District.

Westbury-on-Severn Union.—William Crawshaw Heane, M.R.C.S. Eng. and L.S.A., to the Fourth District.

Wilton Union.—Challoner Clay, L.R.C.P. and L.R.C.S. Edin., to the Fovant District.

HANDSOME BEQUESTS FOR VETERINARY AND MEDICAL SCIENCE.—Under the will of Miss Mary Dick, who died recently, the residue of her estate, after paying certain legacies (including £100 to the Society for Widows of Veterinary Surgeons), is to be retained by her trustees until it amounts to £20,000. It is then to be divided, and £10,000 given for the furtherance of veterinary science in connexion with the Veterinary College founded by the brother of the testatrix—the late Professor Dick—in Edinburgh; and the other £10,000 to be applied in founding in Edinburgh University a professorship either of comparative anatomy or of surgical anatomy, whichever her trustees may consider most required in the interests of medical science.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 13, and reopened on Thursday, September 13 next.



VITAL STATISTICS OF LONDON.

Week ending Saturday, August 4, 1883.

BIRTHS.

Births of Boys, 1253; Girls, 1252; Total, 2505.  
Corrected weekly average in the 10 years 1873-82, 2571.7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	738	727	1465
Weekly average of the ten years 1873-82, ...	70.3	81.3	168.6
corrected to increased population ...			
Deaths of people aged 80 and upwards ...	...	...	54

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669833	...	3	8	1	5	...	3	...	32
North ... ..	905947	1	12	5	4	3	...	1	...	32
Central ... ..	282238	...	5	5	3	2	...	...	...	13
East ... ..	692738	...	21	13	3	6	1	1	...	30
South ... ..	1285927	...	27	8	5	7	...	1	...	61
Total ... ..	3816483	1	68	39	16	23	1	6	...	168

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	29.810 in.
Mean temperature ... ..	...	...	...	...	...	...	60.6°
Highest point of thermometer ... ..	...	...	...	...	...	...	76.6°
Lowest point of thermometer ... ..	...	...	...	...	...	...	46.6°
Mean dew-point temperature ... ..	...	...	...	...	...	...	53.4°
General direction of wind ... ..	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	...	0.22 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 4, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Aug. 4.	Deaths Registered during the week ending Aug. 4.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ... ..	3955814	2505	1465	19.3	76.6	46.6	60.6	15.90	0.22	0.56
Brighton ... ..	111262	44	28	13.1	74.0	51.8	61.4	16.33	0.21	0.53
Portsmouth ... ..	131478	72	47	18.7	...	...	...	...	...	...
Norwich ... ..	89612	50	30	17.5	...	...	...	...	...	...
Plymouth ... ..	74977	40	14	9.7	72.0	49.0	57.7	14.28	0.67	1.70
Bristol ... ..	212779	135	61	15.0	69.5	48.4	57.2	14.00	0.70	1.78
Wolverhampton ...	77557	38	24	16.2	69.5	43.1	56.1	13.39	0.43	1.09
Birmingham ... ..	414346	277	161	20.2	...	...	...	...	...	...
Leicester ... ..	129483	98	45	18.1	...	...	...	...	...	...
Nottingham ... ..	199349	171	73	19.1	74.6	43.0	58.4	14.66	0.08	0.20
Derby ... ..	85574	59	18	11.0	...	...	...	...	...	...
Birkenhead ... ..	89700	69	19	11.2	...	...	...	...	...	...
Liverpool ... ..	566753	349	304	28.0	67.2	52.1	58.0	14.44	0.05	0.13
Bolton ... ..	107862	60	39	18.9	63.5	42.0	55.6	13.12	0.17	0.43
Manchester ... ..	339252	219	152	23.4	...	...	...	...	...	...
Salford ... ..	190465	136	72	19.7	...	...	...	...	...	...
Oldham ... ..	119071	51	48	21.0	...	...	...	...	...	...
Blackburn ... ..	108460	76	41	19.7	...	...	...	...	...	...
Preston ... ..	98564	76	51	27.0	69.0	51.0	59.0	15.00	0.03	0.08
Huddersfield ... ..	84701	37	37	22.8	...	...	...	...	...	...
Halifax ... ..	75591	39	22	15.2	...	...	...	...	...	...
Bradford ... ..	204807	108	75	19.1	73.6	47.5	58.3	14.61	1.00	2.54
Leeds ... ..	321611	194	139	22.6	71.0	45.0	58.0	14.44	0.79	2.01
Sheffield ... ..	295497	230	115	20.3	73.0	49.0	58.0	14.44	0.22	0.56
Hull ... ..	176296	119	53	15.7	75.0	47.0	58.1	14.50	0.17	0.43
Sunderland ... ..	121117	112	49	21.1	...	...	...	...	...	...
Newcastle ... ..	149464	95	95	33.2	...	...	...	...	...	...
Cardiff ... ..	90033	68	19	11.0	...	...	...	...	...	...
For 28 towns ... ..	5620975	5527	3298	20.0	76.6	43.0	58.2	14.55	0.36	0.91
Edinburgh ... ..	235946	131	92	20.3	67.7	45.5	56.7	13.72	0.72	1.83
Glasgow ... ..	515589	402	246	24.9	...	...	...	...	...	...
Dublin ... ..	34985	191	115	17.2	66.7	48.0	57.6	14.23	0.32	0.81

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.81 in.; the lowest reading was 29.44 in. on Monday at noon, and the highest 30.07 in. on Saturday at noon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

B. N.—The dose of the hydrochlorate of pilocarpine is from  $\frac{1}{30}$  to  $\frac{1}{2}$  grain by mouth; and from  $\frac{1}{30}$  to  $\frac{1}{4}$  grain hypodermically.

The Contagious Diseases Acts, Devonport.—The Devonport Board of Commissioners have again discussed the action of the Government in suspending these Acts, and have resolved to take further action in conjunction with the whole of the local authorities in the Three Towns, with the view of inducing the Government to reconsider their recent decision. It was stated that in Plymouth, Stonehouse, and Devonport the suspension of the compulsory clauses had proved a grievous calamity, and it was unanimously resolved to forward a second memorial to the Government, urging the great importance of continuing the operation of the Acts.

F. R. S.—Dr. John Davy was the brother of Sir Humphry Davy. Some "Recollections" of him were recorded by Professor Gulliver in the Medical Times and Gazette, September 23, 1871. The warmest friendship existed between these distinguished men. Of Dr. Davy, Sir Humphry says in his Autobiography—

"He broke no promise, served no vulgar end;  
He gained no title, and he lost no friend."

A Sanitary Requisite, Brighton.—During the past ten years the question of a public abattoir has been on several occasions agitated, but no practical result has been attained, chiefly on account of the opposition of the local butchers. The subject is again revived, and an influential deputation has lately waited upon the Sanitary Committee of the Town Council, and presented a memorial signed by nearly three thousand persons, setting forth the necessity of such an establishment in the Borough.

A Nurse and Infected Clothing.—A nurse has been sentenced by the Birmingham magistrates to six months' imprisonment with hard labour for stealing a quantity of wearing apparel belonging to two persons (husband and wife) who had suffered from small-pox, and whom she had nursed during their illness. She pledged the clothing at various pawnbrokers' shops, but the greater portion of it has been recovered by the police. The goods, and also the shops, were subsequently disinfected. When arrested, the defendant was wearing the garments which she wore when nursing the prosecutor and his wife.

The Holbeck and Leeds Board of Guardians.—A notice of motion stands for discussion at the next meeting of the Holbeck Board, that the resolution in favour of co-operating with the Leeds Guardians on the amalgamation of several poor-law unions be rescinded.

The London School Board and Infectious Diseases.—At the last meeting of the Board a resolution was passed, that any child showing symptoms of an infectious disease, or any child coming from a house where infectious disease existed, should be sent home at once. The medical officer of health for the district must, at the same time, be informed of the child's exclusion, and furnished with the name and address of the child, and the reason for its exclusion. When there is not a medical officer of health, the information must be forwarded to the sanitary authority. Any child suffering from scarlet fever, diphtheria, small-pox, or typhus fever, and excluded under this rule, should not be allowed to resume attendance at school within two months, unless a certificate from the medical officer of the sanitary authority or of the union was produced to show that it may safely be re-admitted; and when a child has been attended by a duly qualified medical practitioner, his signature shall be sufficient.

Workmen's, etc., Clubs, Liverpool.—Communications have recently passed between the Home Secretary and the Liverpool Watch Committee on the subject of the clubs in the city, of which there are many, and where drinking is alleged to be carried on. A report has been prepared and sent to the Home Office, giving the number of clubs and the modes on which they are carried on in the city. This information is required, it is stated, preparatory to legislation on clubs.

Scarborough.—The deaths in this town for the fortnight ending the 28th ult. were fifteen, showing a death-rate of 11.37 per 1000, against 15.73 in the same period last year.

Outbreak of Diphtheria in Calne, near Bowood.—Touching a rather alarming report of an outbreak of diphtheria, the Mayor writes, on the 25th ult.:—"I learn from inquiry that there are now only four cases among children and one adult. There has been a total of twenty-six cases, resulting in four deaths among children and not one adult death. The ventilation shafts being placed completes an efficient system of drainage which has been lately carried out, and the schools have been closed a little earlier than the regular holidays as a precautionary measure. Within the past year a private company has brought a bountiful supply of pure water into the town, and Calne may be considered as one of the healthiest of English towns."

Convalescent Home for Children, Dundonald.—In this village a convalescent home has just been opened by the Countess of Eglinton, established mainly by the Hon. Mr. and Mrs. Vernon, of Auchans.



*Dr. J. M., Liverpool.*—In his interesting "Retrospect of a Long Life," Mr. S. C. Hall states that Mr. Edmund Macnaghten, of Bushmills, co. Antrim, married his second wife when he was eighty-two years of age. By this marriage he became the father of two sons, the eldest of whom was a Lord of the Treasury from 1819 to 1830; the youngest was born when his father was eighty-four years of age. Mr. Macnaghten lived till 1781, and died at the age of 102 years. He is described as a fine, hale, handsome old man.

*Curious Observation.*—A French writer observes that the initials of the five elements (in their French names) which enter chiefly into the composition of organic matter—namely, carbone, hydrogene, azote, oxygene, and soufre—spell chaos.

*Prosecutions for Milk Adulteration, and the Fines imposed.*—Mr. Wigner, analyst, in his report to the Plumstead Board of Works, advises the Board to prosecute all persons selling milk found adulterated with 10 per cent., or even less, of water—a suggestion which met with the approval of the Board; and it was also decided to write to the Home Secretary, urging him to point out to the police magistrates the importance of making the fines for adulteration heavier.

*Rearranging the Medical Districts of the City of London Union.*—The Board of Guardians have decided on a rearrangement of the outdoor medical districts. Two of the district medical officers—Dr. Smith and Mr. Humphreys—having tendered their resignations, the occasion is considered opportune for carrying out the alterations proposed. The opinion of the Board is that the districts for the supply of medical relief to the poor, as well as for the general benefit of the Union, as at present existing, should be changed, and that, in the place of six districts, three only for the future should exist. Towards effecting this change a six months' notice was decided to be given to Mr. Read to determine his office of medical officer of the present district No. 2. Dr. Thompson, Mr. Brown, and Mr. Sequeira, having acquiesced in the alteration of their present districts, and consented to act for the new districts, it was decided that they be appointed respectively to those districts at a salary of £220 per annum each.

*Vacant Coronership.*—The Town Council of Hythe have declared the coronership vacant, in consequence of the mysterious disappearance six weeks ago of Mr. W. S. Smith, Clerk of the Peace and Coroner for the borough.

*Brandy as a Medicine.*—The magistrates at Tredegar had lately to decide a rather novel case. The landlord of an inn was charged with having supplied brandy to a customer during prohibited hours. He successfully urged in his defence that the brandy was only supplied as medicine. The magistrates dismissed the case. But the Licensing Act, 1874, prescribes the penalty for selling intoxicating liquors during prohibited hours, and specifies certain cases in which the seller may be excused, although it does not include among them the sale of spirits for medicinal purposes.

*The Dalrymple Inebriate Home.*—This Home is established under the Habitual Drunkards Act, 1879, at "The Cedars," Rickmansworth. It is a freehold property, and has been obtained for £3700. The house contains twenty large rooms, and has around it laid-out grounds of about four acres and a half. Money is still wanted to complete the purchase and furnish.

*Cheap Fish Supply for Workhouses.*—A smack owner of the Grimsby Docks has offered to supply the Islington Guardians, for the Workhouse, at 2d. per lb., ready dressed for cooking, cod, ling, haddock, skate, whiting, and gurnet. If a large quantity be required, soles, turbot, salmon, etc., in season, for the officers, at the same price. He is supplying over forty public institutions, and has given satisfaction. The offer was referred to the Visiting Committee of the Board for consideration and report.

*The Butterine Company.*—This Company has held an exhibition of samples of butterine at the Cannon-street Hotel, in order to show that the article compares favourably with real butter, for which it is a cheap substitute. The difference between butter and butterine would appear to be that the one is based upon the fat drawn from milk, and the other upon the internal fat of cattle. The appearance of the butterine was precisely like that of real butter, and in taste butterine would pass for good butter.

*Church Public-house Property.*—The Ecclesiastical Commissioners, it is stated, contemplate taking certain action in regard to public-houses of which they are the owners.

*Our Nuisance Inspectors and Bad Fruit.*—It transpired, on an application of the sanitary officer of St. George's Vestry, Borough, to the Southwark magistrate for an order for the immediate destruction of a large quantity of Australian apples which were utterly rotten, that the inspectors employed by the City authority seldom examined the foreign fruit, and costermongers frequently complained of receiving bad samples.

*Children in American Factories.*—It is stated that the New Jersey Protection Law is to be strictly enforced. It forbids the employment of girls under fourteen, and boys under twelve years of age, in factories. It is estimated that nearly two thousand children of the prescribed ages are employed in the factories, shops, and stores of Trenton alone. The inspector, recently appointed, is visiting the various districts, and announces his determination to enforce the statute to the letter.

*Egyptian Rags and Cholera.*—During a discussion at the Liverpool Town Council, last week, on the danger arising from the arrival in the port of cargoes of rags collected in Egypt and sent to Liverpool, it transpired that the medical adviser of the Local Government Board seemed to have doubts whether cholera could be spread from rags, and requested that information should be given him as to any specific case in which cholera had been conveyed through rags. It is stated that the authorities at Alexandria were prohibiting the exportation of rags altogether.

*Legal Powers for the Abatement of Nuisances.*—The solicitors to the Clerkenwell Vestry advise that the Vestry can legally delegate power to the Sanitary Committee to take action for the abatement of nuisances under the Nuisances Removal Act. The Sanitary Committee desired that powers be delegated to them to take legal proceedings under the Sanitary Acts, where necessary, for the enforcement of notices to abate nuisances.

*Unwholesome Food.*—At the Worship-street Police-court, upon an application by the sanitary inspector, Shoreditch, the magistrate granted an order for the destruction of a large quantity of bullocks' hearts which were offered for sale in the district at 3d. a pound. These hearts had been imported from Russia, and were in an advanced stage of decomposition. At Bradford, a sausage-maker has been sent to prison for three months with hard labour, for having on his premises a quantity of meat diseased and unfit for human food. It was stated that the defendant had branch shops in Liverpool and London.

COMMUNICATIONS have been received from—  
Dr. BRINSLEY NICHOLSON, London; Dr. B. W. RICHARDSON, F.R.S., London; Dr. MERCIER, London; Dr. C. R. FRANCIS, London; Dr. N. CHEYERS, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH; MESSRS. MOTTERHEAD AND CO., Manchester; Mr. J. H. WILLIAMS, Denbigh; Dr. W. H. PEARSE, Plymouth; THE SECRETARY OF THE UNIVERSITY OF EDINBURGH; Mr. J. CHATTO, London; Dr. J. M. BRUCE, London; Inspector-General ROBERT LAWSON, London; Mr. T. M. STONE, London; THE SECRETARY OF THE ARMY MEDICAL SCHOOL, Netley; Dr. J. W. MOORE, Dublin; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SANITARY COMMISSIONER, Punjab; THE SECRETARY OF THE UNIVERSITY OF GLASGOW; THE REGISTRAR-GENERAL FOR QUEENSLAND; THE REGISTRAR-GENERAL FOR ENGLAND.

BOOKS, ETC., RECEIVED—  
A New Departure in Medical Electricity—Experimental Researches of the Tension of the Vocal Bands, by F. H. Hooper, M.D.—Des Effets Comparés de Divers Traitements de la Fievre Typhoïde, par le Dr. Buboué—An Atlas of Illustrations of Pathology: fasc. v., Diseases of the Liver (The New Sydenham Society)—Dwellings and the Death-rate of Manchester, by A. Samuelson, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—  
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Revue Mensuelle de Laryngologie, d'Otologie, etc.—Journal of Anatomy and Physiology, etc.—Analyst—Practitioner—Ballymoney Free Press, August 2—Weekblad—L'Impartialité Médicale—Journal de Saxon—Indian Medical Gazette—Alienist and Neurologist—An Ephemeris of Materia Medica, etc.

## APPOINTMENTS FOR THE WEEK.

### August 11. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

### 13. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

### 14. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

### 15. Wednesday.

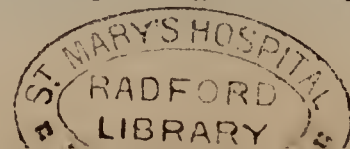
Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

### 16. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

### 17. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.





# CLINICAL LECTURE ON A CASE OF STRANGULATED FEMORAL HERNIA,

COMPLICATED WITH OLD PERITONEAL ADHESIONS.

*Delivered at Westminster Hospital.*

By GEORGE COWELL, F.R.C.S.,  
Senior Surgeon.

GENTLEMEN,—The patient whom you have just seen in Queen Anne Ward, and who will be discharged to-morrow, is one to whose case I have frequently called your attention during the seven weeks that she has been an inmate of the Hospital. Many of you have watched the progress of this patient with considerable interest, and I make no apology for inviting you, in our lecture to-day, to go through the history of the case from the beginning, even at the risk of repeating much that I have already said to you. The case is as instructive as it is interesting, since it especially affords an opportunity of adding to your stock of experience of the complications that may occur in cases of strangulated hernia, and illustrates some of the difficulties that have to be overcome in dealing with them.

I will first read to you the notes of the case, which has been fully reported by Mr. F. W. McDonogh, one of my dressers, and afterwards call your attention to its important features.

Ellen J., aged forty-eight, married, was admitted seven weeks ago to Queen Anne Ward, under Mr. Cowell's care, suffering from symptoms of strangulated hernia.

Her previous history is that seven years ago, after a fatiguing walk, she had severe pain and tenderness in the right groin. This passed off in a few days, but she discovered in the same position a swelling about the size of a small walnut, which, however, she could easily reduce. Nothing further was thought of it until about two years ago, when, finding that the tumour had gradually become as large as a hen's egg, she was advised to get a truss. This truss was a badly fitting one; it often slipped out of place, and was worn irregularly. Sometimes, after more standing about than usual, the hernia became tense, painful, and difficult to get back, but up to the present she states that she has always succeeded in returning it. Since she has been ruptured she has had one miscarriage and one child born alive. At both these times the hernia, though down, in no way inconvenienced her.

The immediate history is that of late the patient has been suffering from a bad cough, and that directly after a long walk on the evening of the day previous to her admission a violent fit of coughing came on. The account that she gives is that the walking had displaced her truss, allowing a little of the hernia to escape, and that the coughing had forced it down completely. About two hours afterwards she had pain in the abdomen, and, feeling sick, took a tumbler of salt-and-water in order to induce vomiting. The hernia now became swollen and painful, and she removed the truss and tried to reduce the hernia. Finding herself unable to do so, she sent for a medical man, who, after applying the taxis under chloroform, had ordered her to be placed in a hot bath for an hour.

The patient was admitted to the Hospital about six hours after the occurrence of the first symptoms. Her face was pale, pinched, and anxious in expression. She was much troubled with eructation, and she vomited a yellowish, semi-fluid matter without any characteristic smell about it. She also complained of a heavy, dragging pain in the abdomen, and a twisting sensation around the umbilicus. On the right side there was a very tense femoral hernia about the size of a duck's egg.

Reduction was not immediately attempted, on account of the somewhat prolonged manipulation the hernia had undergone before admission. Fifteen minims of tincture of opium were administered, and an ice-bag was applied to the hernia. The symptoms continued unabated, and in the morning the House-Surgeon made a gentle trial of the taxis, but without result. The ice-bag was continued, and the patient was seen at 2 p.m. by Mr. Cowell, who at once decided to

operate. The vomiting was not stercoraceous, but the hernia was tense and painful, and there was an anxious expression of face. The operation was performed under chloroform with antiseptic precautions. An incision nearly four inches long was made through the skin over the tumour, and the various coverings of the hernia were opened up on a broad director. It was found necessary to open the sac, and the stricture (Gimbernat's ligament) was divided, and the gut (of a light claret colour) was, after being examined, returned. A piece of omentum, which formed part of the hernia, was held by adhesions, and irreducible. A portion of it was ligatured and cut through, and the stump was left in the wound. Mr. Cowell passed his finger through the wound by the side of the omental stump, and found the returned gut free. The wound was sewn up, the ends of ligature around omentum being left out. A thick pad of antiseptic gauze was firmly bandaged on with a spica of the same material. There was very little bleeding and no vessel was tied. As the patient left the theatre she was very sick, the vomit being yellowish-brown in colour. At 4 p.m., pulse 136; respirations 26; temperature 99.2°. At 8 p.m., temperature 102°. At 12 p.m., temperature 100°.

The next day (Wednesday) the note was: "The sickness continued at intervals throughout the night; some sleep was obtained, however. An opium pill was given, but vomited up immediately. Shortly afterwards she retained ten minims of tincture of opium. Nothing else but ice was taken."

At 11 a.m., pulse 108; respirations 26. At 5 p.m., pulse 136; respirations 36. Still sick; vomit is dark brown, and has a slightly faecal odour. Temperature until 12 noon kept at 100°; at 4 p.m. it was 101°, and at 8 p.m. 102°. During the day she took about three ounces of brandy in iced water. Face is still very pale and pinched; no pain complained of.

Thursday.—The sickness has continued throughout the night, and the patient has had but little sleep. The vomit is darker, and has a slightly faecal odour. On Mr. Cowell's arrival, at 1 p.m. (pulse 128; respirations 30; temperature 100°), the dressings were removed under antiseptics, the sutures divided, and the wound, which was healing by first intention, was opened. A knuckle of intestine was found occupying the wound. It was seen to be bright and injected, and had evidently formed part of the former hernia. It was easily reduced, and pushed by the finger a short distance from the femoral ring. The wound was closed with sutures as before, and a graduated compress of lint was very firmly applied with a spica of ordinary bandage. The patient was very sick soon afterwards. At 8 p.m. the abdomen was slightly tympanitic, but not very sensitive on pressure. An enema (soap-and-water one pint at normal temperature) was administered, and acted slightly. Sickness by this time had much abated, several sips of mixed beef-tea and brandy being taken. Temperature 102°, and at 12 p.m. 99.4°.

Friday.—Patient has passed a good night, but is still sick occasionally. Has felt no great pain or inconvenience. The tympanites has diminished. Temperature at 10 a.m., 98.8°; pulse 132; respirations 32. Tongue small, pointed, red, and moist; a little white fur on dorsum. Has taken several sips of beef-tea and brandy mixed with iced water. She wants "a good drink of milk." Face is still pale; has a slight yellowish tinge and looks anxious. At twelve noon temperature was 99°; pulse 148; respirations 32. Patient now had a second enema, which gave some relief, but did not result in any satisfactory bowel action. At 4 p.m. the patient was seen by Mr. Cowell. There had been some return of the sickness accompanied by a slight cough. A dose of tinct. opii (fifteen minims) had been given. The vomit is of a light yellowish-brown colour, and of a slightly faecal odour, and is only brought up with much retching. The patient is weaker. The temperature is 96°. Mr. Cowell, finding that there were still signs of intestinal obstruction, decided to re-examine the wound and the gut in its neighbourhood. On removing the dressings, which were not displaced, and opening the wound, which was not looking healthy as on the previous day, what appeared to be the same piece of intestine was found down again. The patient was put under the influence of chloroform. Mr. Cowell introduced his finger through the wound along the intestine as far as it would reach, when the point just touched what appeared to be a constriction of the intestine. This



was pulled down through the crural ring, and it was found that there was a broad band of adhesion of peritoneum loosely surrounding the gut. This was easily broken down with the finger. Further examination showed that higher still there was a second narrower band of adhesion constricting the intestine in a similar way. This also having been torn through, the gut was cleansed with a sponge dipped in weak carbolic lotion, and returned. It was well pushed aside in order that the same portion of intestine might not present again at the crural ring, and a sponge was thrust in the wound and kept there by means of a pad of lint and a spica bandage. The carbolic spray was used throughout. At 8 p.m., pulse 104; respirations 28; temperature 96.8°. Has been sick twice since the operation, and has had a natural motion, dark in colour and very offensive. Temperature at 12 p.m., 98.2°.

Saturday.—Patient was much troubled with cough during the night, and had a slight headache, but no sickness. Temperature at 8 a.m., 97.4°; pulse 148; respirations 28. At 8 p.m., temperature 98.4°; pulse 124; respirations 24. Bowels have been opened naturally three times; stools still dark and offensive. No sickness all day. The wound was dressed, and a fresh sponge applied.

Sunday.—Is very much better, having passed a good night. Temperature at 4 a.m., 96.4°; at 8 a.m., 98.2°. Bowels open again. The cough is better and the headache is gone. At 12 noon, temperature 97°; pulse 120; respirations 24. Wound dressed in the afternoon; sponge taken out; some sloughing omentum removed, and ligature now came away. A fresh sponge was put in, and kept there with a compress of lint and spica as before. At 12 p.m., temperature 98.2°. Tinct. opii ℞xv. was given, as patient was wakeful. Nearly two pints of beef-tea, the same quantity of milk, and six ounces of brandy, together with ice *ad lib.*, have been taken during the past twenty-four hours.

Monday.—Cough was troublesome again during the night. This morning she feels stronger, looks less pale, and has quite lost her anxious look. A fresh sponge was put in the wound to-day, but not quite so deeply. Some more slough was removed; rest of wound looked clean. Temperature at 4 a.m. was 97°; normal the rest of the day. Pulse averaged 108°, and respirations 24. Bowels well opened; stools more natural.

Tuesday.—Passed a good night; this morning she is quite comfortable, cough having nearly left her. She sleeps at intervals throughout the day, awaking suddenly with a start. Pulse 104; respirations 28; temperature normal all day. Wound dressed in the afternoon; no slough removed, but slight offensive serous discharge on sponge. Bowels not open all day. Is to be fed less frequently, more being given at a time.

Wednesday.—During the night she complained of flatulence, and was relieved by an enema. At 12 noon, pulse 100; respirations 24; temperature normal. Wound dressed as before; was clean and looked smaller. Bowels opened naturally during the day.

The next day no sponge was put in the wound, but a small pad of lint was placed on each side of it to press the edges together, and a larger one over these, secured by a spica. The temperature, pulse, and respiration were normal, and the bowels open. The cough is now very slight.

Subsequently the wound was dressed every day, and rapidly healed. The appetite gradually improved. On the thirteenth day after the last operation, fish was ordered in addition to the milk and beef-tea diet, and eleven days later, meat was substituted for the fish. The patient has steadily gained strength, and the recovery has been uninterrupted.

This, gentlemen, is the history of the case. The first point to which I wish to call your attention is the significance of the symptoms. The patient has been ruptured for seven years, had herself been able to reduce the small but gradually increasing hernia, and had therefore not sought surgical advice until about two years ago. She was then advised to get a truss, but, as it did not fit her, it was worn with great irregularity. Let me say, in passing, that a surgeon has not discharged his duty to his patient when he has prescribed a truss. A truss must fit accurately, or it will not be worn with comfort by the patient, and will fail to fulfil the object for which it is ordered—that of preventing the descent of the hernia. Neither the patient nor the instrument-maker are the proper judges of the efficiency of

a truss, and it is as important for the surgeon to see from time to time the patient for whom he has ordered a truss, as it is for the physician to see the patient for whom potent drugs may have been prescribed. I advise you, at all events, to make it a rule to see for yourself that a patient, for whom a truss has been ordered for the first time, is in possession of an instrument which fulfils the desired objects. The symptoms of pain and nausea in our patient seem to have commenced two hours after the descent of the hernia, when she sought relief from her symptoms by taking an emetic in the shape of a tumbler of salt-and-water. This was probably unfortunate, as it could hardly have failed to increase the tension in the hernia, and rapidly to favour the establishment of a condition of strangulation. Her subsequent attempts to reduce the hernia of course failed, as did those of the surgeon who was sent for, and who very properly sought the aid of an anæsthetic.

By the time that the patient was admitted to the hospital the rupture was really in a condition of strangulation, but it is probable that at this hour (soon after midnight) the symptoms were by no means urgent. They, however, gradually became more so during the night, and when I saw her the constipation had been complete for nineteen or twenty hours, and the pain in the hernia and in the abdomen, and the vomiting (not stercoraceous), were pronounced. The hernia too was very tense, and there was certainly a "pale, pinched, and anxious" expression of face, though not to any marked degree. Still, there was no doubt as to the propriety of at once proceeding to place the patient under the influence of an anæsthetic, and, if necessary, to operate. No prolonged use of the taxis was made, as it is unwise, either when the symptoms have lasted for some time, or when, as in the case before us, vigorous applications of the taxis have been previously made. It was found necessary to open the sac, for, although the hernia was very tense, the almost absence of resonance pointed to the probability of the presence of omentum. This was found to be the case, and some bands of adhesion which existed between the omentum and the sac rendered it very difficult to return the large knuckle of not very dark-coloured intestine. The omentum was irreducible, and I thought it advisable to ligature a portion of it, leaving the stump with the adhesions to close the femoral ring.

We now come to an instructive point of this case. I have before impressed upon you the great importance, after the wound has been sponged, of passing the finger through the ring to ascertain that the portion of intestine which has been returned is free within the peritoneal cavity. The subsequent history of this case teaches us that, at least in old herniæ, this examination must be as thorough and complete as the finger of the surgeon will permit. Had I passed my finger a little further than I did when making my final examination before closing the wound, I should in all probability have discovered the bands of adhesion which continued to constrict, although they did not strangulate, the intestine, and which were probably within reach of the tip of my finger. I should thus have spared my patient three additional days of suffering and much increased danger.

I need hardly point out to you the impunity with which omentum may be removed. There is often great difficulty in returning even a not very large piece of omentum. It can only be done by beginning at one edge of it, and gradually paying it in. If there be any difficulty, or if there are adhesions, it may be left if quite healthy, but it is often safer to place a ligature tightly round it and to cut it off. This should always be done if the omentum is inflamed or indurated, or has in any way been altered by the strangulation. The plug which is thus formed should be secured in the ring as was done in this case, as, if it becomes firmly adherent, it is sometimes efficacious, when firmly supported by a truss, in preventing the subsequent descent of the hernia.

Another practical point which is worthy of notice is the great advantage of inserting a sponge in the wound. In consequence of the re-opening of the wound by the escape of intestine and for exploration there was some loss of vitality of the coverings of the hernia and some discharge. After the liberation and reduction of the hernia at the last operation the wound was plugged with a sponge washed in carbolic solution. This was retained in position by a firmly applied pad and bandage. The sponge soaked up all the discharge, and the wound very rapidly cleaned and granu-



lated. A clean sponge was applied daily for five days, and then it was discontinued.

I have several times used a sponge in this way, and can strongly recommend it whenever it is necessary to leave a stump of omentum secured by a ligature. There is nearly always in these cases some slight amount of sloughing, and a clean sponge changed once or twice daily is the best form of absorbent dressing with which I am acquainted. The elasticity of the sponge adds to its effect upon the wound.

## AN ADDRESS

DELIVERED AT THE OPENING OF

### THE SECTION OF DISEASES OF CHILDREN,

*At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.*

By SAMUEL GEE, M.D., F.R.C.P.,

Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

#### A SURVEY OF THE LITERATURE OF THE DISEASES OF CHILDHOOD.

IN all studies of this kind, we turn to Hippocrates first of all. Among the numerous treatises which bear his name, there is only one which is devoted to the pathology of children, and that is the essay on Dentition. It is a chain of aphorisms, concerning the common disorders of children who are teething: vomiting, diarrhoea, cough, convulsions, and fever are mentioned; but almost half the treatise relates to "ulcers of the tonsils," a disease difficult to identify in modern practice. In the work which especially bears the name of the "Aphorisms," there are some slight references to children's diseases: *e.g.*, in bk. iii., aph. 24, 25, 26. "To little and newborn children: aphthæ, vomiting, coughs, sleeplessness, frights, inflammation of the navel, watery discharges from the ears; at the approach of dentition: pruritus of the gums, fevers, convulsions, diarrhoea, especially in cutting the canine teeth, and in those who are particularly fat, and have constipated bowels; to persons somewhat older: affections of the tonsils, incurvation of the spine at the vertebra next the occiput, asthma, calculus, round worms, ascarides, acrochordon, satyriasmus, choerades, and other phymata." But, in all the Hippocratic treatises, the passage which is, for us, the most interesting by far, is that remarkable description of mumps, which we find at the beginning of the first book of the "Epidemics." I believe we may affirm that it is the only description left us by the ancients of that one of the very few acute specific diseases which they knew. Although mumps is thus the earliest acute specific disease to be recorded, yet has it been the last to gain universal acceptance; you will remember that Felix Niemeyer does not admit the acute specific form of parotitis which we call mumps. In Celsus, Aretæus, and Aurelian I do not recollect anything relative to children's diseases worth notice; nor need I refer to the little which Paulus has to say upon our topic.

The name of Rhazes must be held in honour by us, for he is the earliest writer of a treatise upon the diseases of children—such as it is; for the chapters, which are very short, consist almost wholly of therapeutics, often absurd enough. Of semeiology, or description of disease, there is little or nothing. Rhazes was born about the middle of the ninth century, in Persia. He has another claim to our notice, inasmuch as the earliest extant writings upon small-pox and measles bear his name.

The seven hundred years which passed away between Rhazes and Francis Glisson, added hardly anything to knowledge. Yet I must mention the first English book upon children's diseases, namely, "The Boke of Childerne," composed by Thomas Phayer, studious in Philosophie and Physicke, published in 1544. This is that same Phayer who is better known as a translator of a part of the *Æneid*. It is clear that Phayer's book is founded upon Rhazes, who is referred to in several places, and in one is spoken of as "Rasis, a solemne practicioner among phisicions." But Phayer's list of diseases is fuller than that of Rhazes, and perhaps it will not be found wearisome to read the heads of the sundry chapters of Phayer's little book.

The sixteenth century was rife in Latin poetry, and even in medicine the poets found work for their muses. You all know the name of Fracastorius, the author of the poem called "Syphilis," in three books. (I may just say, in this place, that Paracelsus was the first to mention inherited syphilis, in 1529.) Fifty-four years after the appearance of Fracastorius's poem—namely, in 1584—Gaucher de Sainte Marthe, or Scævola Sammarthanus (as he Latinised his name), published a poem, also in three books, called "Pædotrophia"—that is to say, the rearing of children. The first book relates to the fœtus, or, what is the same thing, to the management of pregnant women; the second, to the management of sucklings; and the third, to their diseases. Ste. Marthe was a French gentleman, but not, as might be supposed, a physician. His merits as a Latin poet I will not pretend to gauge. Some have held his "Pædotrophia" to fall not far short of the "Georgics"; and it might be asked why the rearing of babies should sound more like burlesque in a poem than the rearing of corn, vines, and cattle. Be this as it may, the poem has been translated into English twice. The earlier translation is anonymous, and was published in 1710; the latter is by H. W. Tytler, M.D., and appeared in 1797. Tytler's version is closer to the original, but dull; whilst there is a coarse vigour about the earlier translation which makes it amusing.

Here I may just allude to an Italian poem upon the suckling of children, written about 1560, by Luigi Tansillo—the title, "La Balia," or "The Nurse"—and it was deemed worthy of translation by the eminent citizen of Liverpool, William Roscoe. The second edition, which I possess, bears date 1800. The author denounces wet-nurses, and exhorts the Italian ladies themselves to suckle their children.

Leaving this laureate fraternity of poets, let me speak of a little book entitled "De Morbis Puerorum, or a Treatise of the Diseases of Children, etc., by Robert Pemell, Practitioner in Physick at Cranebrooke in Kent, May the 29, 1653." He, no doubt, practised among the rich clothiers who then dwelt in the Weald of Kent, and in Cranbrook especially. His book is an improvement upon Phayer's, yet, perhaps, it is hardly too much to say that there had been no great increase of knowledge since the time of Rhazes, or even of Hippocrates.

But better things were at hand. On the thirtieth page of this book, Pemell refers to "a learned treatise set forth lately by three or four doctors," on rickets. This was no other than Glisson's "De Rachitide sive Morbo Puerili, qui vulgo The Rickets dicitur, Tractatus," first published in 1650. Glisson marks the beginning of a new epoch in the knowledge of children's diseases, and may be said to hold a place like that of Vesalius in human anatomy, of Harvey in physiology, of Morgagni in morbid anatomy, and of Laennec in semeiology. There can be no doubt that Glisson discovered rickets, yet he was not the first to print a book upon the subject. He spent more than five years in writing his treatise, and he was helped by other Fellows of the College of Physicians; so that rickets had been much talked about before the appearance of Glisson's book, and he was forestalled by those who had the pen of a ready writer. I may mention Theophilus de Garencieres, who is said to have published at London, in 1647, a small book upon rickets, entitled "Angliæ Flagellum, seu Tabes Anglica," which I have not seen.<sup>(a)</sup> In 1649, Arnold Boot published, at London, a small book, entitled "Observationes Medicæ de Affectibus Omissis," the twelfth chapter of which contains a description of "tabes pectoræa," or rickets. But what shall I say of Daniel Whistler, who, in 1684, published in London an essay upon rickets, which he pretended to be a reprint of an academical thesis which he had first printed in 1645, or five years before Glisson's book appeared? I cannot help thinking that too much trust has been put upon Whistler's word of honour. Haller, for instance, in his "Bibliotheca Medica Practica" (1777), speaks (vol. ii., p. 706) of an academical disputation, "De Morbo Puerili dicto Rickets," published at Leyden in 1645, by Daniel Whist (sic). The mistake in Whistler's name makes it doubtful whether

(a) Since the above was written I have, through the kindness of Dr. Allchin, perused the copy of "De Garencieres" which belongs to the Medical Society, and I find that the treatise does not relate to rickets at all, but to a kind of pulmonary consumption, not easy to identify. Yet the book has been largely quoted, especially by the Germans, as a treatise on rickets; the title, I suppose, misled them. The learning of too many goes no further than the title-page, and this at second hand.



Haller had seen the disputation which he quotes. Dr. Norman Moore, some years ago, caused inquiries after this alleged thesis of Whistler's to be made at Leyden, and he tells me that they know nothing about it there. It was in 1684, the year wherein Whistler published his essay in London, that he died in well-deserved disgrace, having robbed the College of Physicians, of which he was then President. Wherefore, in that year, his word of honour was about as trustworthy as a dicer's oath. In short, Dr. Moore believes, and I agree with him, that Whistler's academical disputation of 1645 may be but another of Whistler's frauds.

Glisson, I say, discovered rickets. He asserts that rickets was a new disease, which had first appeared in Dorset and Somerset about 1620. But Glisson was born in Dorset in 1597; so that in 1620 he would be twenty-three years old; and the doubt rises whether the newness belonged to the disease, or to the mental eye of the young man. In general I am not disposed to put much faith in the upspringing of new diseases. I find it more easy to believe that they have been overlooked; still more, that they have been confounded. I find it more easy to believe that men have been blind, rather than that nature has been inconstant during the few hundred years which go to make up written history. Else we must suppose that a new Pandora has emptied her box upon our unhappy age, so many are the new diseases which we know only too well, and our fathers knew not at all. I can believe that morbid poisons spread from one part of the world to another, as the intercourse of men becomes more free. I can believe that syphilis first appeared in Europe at the end of the fifteenth century, and, if I could believe that rickets is nothing but a form of inherited syphilis, I would admit it to be possible that rickets arose about a hundred years later. Otherwise, if it be due to the operation of common causes, it must have existed so long as the present conditions of human life.

In the same shire of Dorset was born, twenty-seven years after Glisson, a man whose name is still more famous, Thomas Sydenham. In his writings we find the first clear references to three diseases of childhood under their present names; I mean whooping-cough, Vitus' dance, and scarlet fever. But Sydenham makes no claim to have discovered these diseases; yet his descriptions are a starting-point in their history. With regard to his description of scarlet fever, I must say that it seems to me to tally more with the scarlatiniform kind of roseola described by Dr. Maton, than with what we call scarlet fever. I cannot omit to remind you that Sydenham has left us the first good and sufficient history of measles.

Sydenham was prone to jesting of that grave kind which dullards misunderstand. You remember the answer which he gave to Blackmore, who asked for advice as to medical books: "Read Don Quixote, sir." Dr. Walter Harris fell another victim to Sydenham's naughty habit. Harris had written a book, "*De Morbis Acutis Infantum*"; and, showing it to Sydenham, the great man said that it was the only book which he himself would fain have written. With this *imprimatur*, the book was republished several times, and translated three times into English—namely, by W. Cockburn, M.D., John Martyn, and by an anonymous hand in a collection of tracts on children's diseases published in 1742. Yet Harris's is a poor production; all that I have carried away from a perusal is, that he attended the son of the Right Hon. the Earl of This, and the daughter of the Right Rev. the Bishop of That, to say nothing about people of inferior quality.

With the eighteenth century, books upon our topic become numerous. Most of them are bad enough, but those which were written to teach (or to catch) the people are by far the worst. Some of these books of advice to mothers, on the rearing, and feeding, and nursing of children, sick and well, are, indeed, masterpieces of twaddle. It would almost seem as if the writers wished to make good the saying that an old woman is the best doctor for a baby. Yet, perhaps, this excuse may be made, that the ignorance of most women is such that even twaddle is better than nothing.

Take Boerhaave's "*Aphorisms*" for a standard of knowledge at the beginning of the century, and you will find that teeth and worms, like two inauspicious planets, still rule the sphere of children's diseases. And mark the simplicity of this pathology—until two years of age, or a little later, children are breeding their teeth; afterwards worms

become common: so that, between the one and the other, we never need to fail for a diagnosis!

In the eighteenth century children's diseases came to be much better understood in three particulars—namely, croup, tubercular meningitis, and the eruptive fevers. First, with regard to croup. It is spoken of under the name of "the croops," by Dr. Patrick Blair, in a letter to Dr. Richard Mead, dated Coupar of Angus, July 6, 1713, and published in a book entitled "*Miscellaneous Observations, etc.*," London, 1718 (page 92). But Blair's description is very meagre, and the first adequate history of croup is Francis Home's, published at Edinburgh in 1765. The first bronchotomy in croup was performed by John Andree on February 11, 1782, at Hertford, I believe. In a paper read before the Medical Society of London on October 31, 1796, Henry Field first distinguished spasmodic from inflammatory croup.

Next, with regard to acute hydrocephalus, or tubercular meningitis as we now call it. Single and ill-described cases of the disease were published by Dr. St. Clair and Mr. John Paisley before the appearance of the treatise of Robert Whytt. Yet no damage can be done to the claim brought forward on behalf of Whytt, that he must be deemed the discoverer of acute hydrocephalus, inasmuch as he was the first to write a history of the disease, in the true empiric sense of the word history. Whytt's "*Observations*" were published at Edinburgh in 1768, two years after his death.

Lastly, with regard to the eruptive fevers, small-pox and measles had been well distinguished by Sydenham. In 1730, Fuller affirmed that chicken-pox (or crystals, as he calls it) was a distinct disease. But Heberden's paper, read before the College of Physicians on August 11, 1767, is the real beginning of our knowledge about chicken-pox. The anginal form of scarlet fever was first studied in this century; Fothergill's "*Account*" appeared in 1748; and in 1779 Withering established the scarlatinal nature of the disease. In 1798, Edward Jenner published his "*Inquiry into Cow-pox*." And, in order to complete this topic, I will just enter the next century and refer to Maton's paper, read before the College of Physicians on April 4, 1814, wherein the scarlatiniform variety of contagious roseola is first described.

Poets still found themes in our branch of knowledge. Dr. Hugh Downman, of Exeter, published in 1774 the first instalment of a didactic poem entitled "*Infancy; or, the Management of Children*." The poem, complete in six books, was published in 1788. The copy I possess is called the sixth edition, and dated 1802. Unluckily, Downman writes in metre without rhyme, and blank verse opens the floodgates of prolixity.

We have now reached the nineteenth century, and literature becomes so immense that any chronicle and brief abstract of the time will be very defective. The great increase of knowledge in our age has been chiefly due to two causes, namely, to the study of morbid anatomy, and to the invention of the methods of physical examination, which are, indeed, the study of morbid anatomy in the living subject. In both these respects pre-eminent, the name of Laennec at once comes to mind; and no man, since Hippocrates, has exerted so powerful an influence upon medicine as he. His fame as the inventor of auscultation has dimmed what would otherwise have been his fame as a morbid anatomist. And I must not forget Bayle, whose book on Phthisis, published in 1810, and whose earlier papers, are the starting-point of the modern doctrine of tubercle; and how large a part tubercle plays in the pathology of children I need not say. Bretonneau's work upon diphtheria and typhoid fever was so original and so conclusive that he may almost be said to have discovered those diseases. It was in France that inherited syphilis was first discussed in a manner such as the importance of the topic deserved. Duchenne discovered the pseudo-hypertrophic form of paralysis, and what he calls "obstetrical paralysis." And, lastly, how successful the pathology of the nervous system has been cultivated by living Frenchmen, you all know well.

Coming back to our own country, I will refer to the work of Willan upon skin diseases; to John Clarke, whose description of laryngismus stridulus is the first which deserves notice; to William Charles Wells, the discoverer of scarlatinal albuminuria; to John Burne, whose papers upon typhlitis are the beginning of definite knowledge of that disease;



and to George Gregory, of whom the same may be said with regard to tubercular peritonitis.

Dr. Bowditch of America is still alive, yet I cannot help alluding to his invention of the method of paracentesis which is now commonly called aspiration. It is true that adaptation of a syringe to a cannula is as old as Anel, and perhaps older; but it is no less true that the chest was not aspirated before the day of Dr. Bowditch.

Lastly, I must mention the three most useful means of physical examination which we owe to Germany, namely, the thermometer, re-introduced by Wunderlich; the ophthalmoscope, invented by Helmholtz; and the laryngoscope of Türck and Czermak.

Before I sit down, I wish to bring before you one truth, which this sketch makes very clear. Looking over the names of the men whom we have celebrated—the men who have made our knowledge what it is,—I do not find one who could be called a specialist in children's diseases; but the multitude are mad after specialties. No wonder! for we are the descendants of those who, in their sickness, worshipped fetishes and charms, or sought after star-gazers and the touch of kings. Our children will deem us to be, in other respects, no less simple. Besides, it is a true saying that "the world suspects a man who can do two things well." As the poet says:—

"One science only will one genius fit;  
So vast is art, so narrow human wit."

But art is not yet so vast, nor human wit so narrow, that the diseases of children need be made a specialty; and I believe that none of us are specialists in the popular and evil sense of the word. For my own part, if I may speak so much of myself, being physician to a hospital for children, and to a much greater hospital for people of all ages, I can see that my knowledge of children's diseases would be much poorer and meaner than it is, were it not for the larger experience I gain at St. Bartholomew's. I wish that the governors of the general hospitals would make more provision for sick children, and then the need for special children's hospitals would pass away.

**STARCHY FOODS FOR INFANTS.**—In a paper in the *Boston Med. Jour.*, July 12, Dr. Keating, of the Philadelphia Hospital, relates several experiments which he has made in refutation of the prevalent idea that until the third month, or even later, no saliva is secreted, and therefore that starchy foods cannot be assimilated. He observes that this seems surprising enough in face of the fact that among the poorer classes children are often found to thrive very well when fed upon corn, starch, and other farina, to the exclusion of other food. His experiments were made with the saliva of twenty-one children varying in age from six days to seventeen months. From these he concludes—1. The saliva of some infants possesses the power of converting starch into glucose without regard to age. 2. The age of infants cannot be taken as an indication of this property of the saliva. 3. When such a condition is found to exist, a small quantity of well-prepared farinaceous food is valuable as an element of diet, incorporated with cow's milk. 4. An examination of the stools of children so fed would be a guide as to the quantity of starchy food to be used; and when farinaceous food is employed, slow feeding is probably preferable to the bottle.

**THE BLIND IN JAPAN.**—Dr. Whitney, writing from Tokio to the *Philadelphia Med. Times*, April 7, states that the blind in Japan, who are numerous, gain, in a great many instances, a comfortable living by performing shampooing or massage, as ordered by Japanese physicians in various diseases. Formerly also they were allowed, after undergoing rigorous examinations, to perform acupuncture; and the skill and anatomical knowledge they sometimes exhibited was wonderful. Not only had they a gentle touch and an almost instinctive appreciation of the seat of pain, but many of them knew all the superficial muscles, and could tell in what position to insert the needles for the cure of certain diseases. Unfortunately, they also sometimes conveyed scabies and other diseases to their patients, and thus fell out of repute. Their services, however, as shampooers are still in great demand. They were formerly endowed by law with various privileges, but these have been abolished, and the "profession" thrown open. Dr. Whitney suggests that this useful art might be taught to some of the blind in America.

## METAPHYSICS IN PATHOLOGY.

By CHARLES MERCIER, M.B., etc.

DR. CREIGHTON'S Address in Pathology at the recent meeting of the British Medical Association appears to me a very memorable one, and as the chief obstacle to the clear conception of a very important and, I believe, most fruitful hypothesis is a difficulty which Dr. Creighton himself terms metaphysical, an attempt to solve this problem may be of service to him and to other workers in the same field. Since the day of Auguste Comte no one has dared openly to avow himself a metaphysician. The term metaphysics is rarely now restricted to its rigorous scientific meaning, but is commonly used in an epithetical sense to stigmatise any unpopular doctrine; and "metaphysician" is considered to be another name for that unfortunate class of persons whose defects of character are set forth with so much emphasis in the Book of Proverbs. The metaphysician is a scientific outcast—a pariah; he is despised and rejected of men; he is become a by-word and a shaking of the head; his doctrines are Anathema, Maranatha,—which I believe is something very bad indeed. Dr. Creighton passes him by on the other side, Dr. Balthazar Foster points at him with the finger of scorn, and the *British Medical Journal* says to him Tush. When I say, therefore, that we all talk and think metaphysically at times, that scientific men very frequently do so, and that the most severely practical men are the greatest sinners in this respect, I have no doubt that the statement will arouse as much astonishment as M. Jourdain experienced on a similar occasion. If I can show that the problem, which Dr. Creighton thinks is likely to occupy the mind of the profession for years to come, admits of immediate and definite solution, I shall claim some consideration for the discredited calling of metaphysics; and when I find Dr. Creighton able to conceive, and willing to admit, the existence of such a highly metaphysical entity as "the mind of the profession," I do not despair of being able some day to welcome him to the ranks of those who profess and call themselves metaphysicians.

I have called the Address a very memorable one; and for this reason—that it is the first attempt to apply the great Doctrine of Evolution to the question of the origin of specific diseases. It is not, indeed, the first introduction of the doctrine into medicine. For years past it has been applied by Dr. Hughlings-Jackson to the elucidation of diseases of the nervous system, but the method of its application to this region of pathology is of a totally different character from that by which Dr. Creighton attempts to solve the mystery of the existence of specific diseases. With regard to nervous diseases the assumption is made that the body and its functions have become what they are by a gradual process of evolution extending through an immeasurable past, and that the changes of structure and disorders of function that we term disease are manifestations of the complementary process of Dissolution, which is, speaking generally, a destruction following the inverse order of the construction. The process of evolution is considered as it builds up the structures and functions of the body; the process of dissolution is considered as it tears them down: and this latter process is itself the disease. Dr. Creighton's method of applying the doctrine is a very different one, as befits the very different nature of the phenomena to which he applies it. He takes a disease, such as small-pox or tuberculosis, which, as we know it, is an aggregate of enormous complexity, and involves processes so different from those of health that there is no discernible community of nature between the two; and he endeavours to show that this complex disease may have gone through a process of evolution comparable with that of the body itself. It may have begun as a trivial departure from normal processes, and by the successive accumulations of small increments of change, it may at length have become the complicated aggregate that we know, just as the body with all its infinite complexity has evolved from a structureless speck of protoplasm. Over the gap that separates the processes of health from those of disease, and that seems so impassable, he throws a bridge of successive minute modifications strictly comparable with that by which Darwin passes from one species of animal or



vegetable form to another. But here comes in the difficulty. It is easy to imagine an animal or vegetable form becoming slightly altered; easy to imagine the offspring inheriting the alteration; easy to imagine the alteration becoming more pronounced in each successive generation, until the divergence of form from the ancestor that first began to vary is very great indeed. But how are we to imagine a similar process as taking place in the case of a disease? The disease has not a definite form and structure like the animal. We cannot take a series of forms of disease, and pin them upon cork or preserve them in spirits. We can preserve pathological specimens, no doubt; but when we look at them we are not looking at a disease—we are looking at portions of the individual in whom the disease existed. Looked at in one way, the disease is definite enough. We can trace its progress from country to country; we can see how it spreads along railways and rivers; we can observe its passage from one patient to another; we can watch its course—its rise and progress and decline. We can distinguish one disease from another; we can recognise variations in the same disease, and say, This is a mild form, this a severe one; yet, when we ask *what* this thing is about which we know so much, we are nonplussed. We can analyse the diseased secretions, but they are not the disease. We can put the diseased tissues under the microscope, but they are not the disease. We can measure the alteration of temperature, describe the physical signs, and photograph the eruption; but yet we have not seen the disease. We can see the bacilli in the blood and in the tissues; we can track them into the discharges, follow them down the drains, pursue them through the soil, trace them in the drinking-water, and recognise them in the blood and tissues of a fresh patient; but the bacilli are not the disease. We say that they communicate the disease; but what is this thing that they communicate? This is Dr. Creighton's difficulty—to understand "how a morbid state of the body can become a semi-independent thing; how it can exist, not in absolute independence of the body, but autonomous within it, an *imperium in imperio*." He finds a "difficulty in conceiving how a mere state of the body . . . can become an individual existence with the power of propagating itself." Now, in the first place, I would demur to the above expressions. Dr. Creighton speaks of a disease as a "morbid state"—a "state of the body." This is, I have no doubt, an oversight; but it is a very important one indeed, and when it is rectified the problem is half solved. A disease is not a morbid state. It is one of the main objects of Dr. Creighton's own paper to insist on the doctrine that pathology is physiology gone wrong. But physiology does not deal with bodily states; that is the province of morphology. Physiology is the science of bodily *processes*, of organs in action; and, similarly, pathology, as distinguished from morbid morphology, is the science of bodily *processes* gone wrong, of organs acting wrongly. Albumen in the urine is not a disease. "Granular kidney" is not a disease. The hypertrophied heart and the thickened arteries are not the disease. These are only its conditions. The disease is the *aggregate of disorders of function* that these changes of structure allow or necessitate. The secretion of albumen by the kidney is a part of the disease; the increased action of the heart is part of the disease; the increased pressure of the blood against the walls of the bloodvessels is another part; and the sum of these and of all other correlated disorders of process throughout the body constitute what we call *the disease*. When, therefore, we speak of "a disease" we must, if we are to avoid confusion, follow the rule of Pascal, and substitute mentally for this term the definition that we attach to it. If we make this substitution in Dr. Creighton's expressions, the problem that we have to solve is this, "How can a group of disorders of function become an individual existence, with the power of propagating itself?" There is one sense in which, of course, it cannot become an individual existence. It cannot exist apart from the persons in whom it occurs. There can be no disorders of process where there are no processes to be disordered. Hence in a dead body there can be no disease, but only altered structures. What is it, then, that is communicated when one person catches a disease from another? A *particular kind of change in the bodily processes, or some of them*. Has this substitution of terms made our conceptions any clearer? Can we imagine a particular kind of change as being "a semi-independent thing,

existing not in absolute independence of the body, but autonomous with it," any more easily than we can conceive a bodily state as so existing? I think there is abundant evidence that we can. In a "following stroke" at billiards the player's ball strikes the red, and communicates to it a movement in its own direction. From one ball there is communicated to the other a particular kind of change. The particular movement does not exist apart from the bodies moving, and yet it has a semi-independent existence, or autonomy, in that it is not the same thing as the bodies moving. It is separable from them; it is communicated to them from without; and it is propagated from one to the other. Although this instance satisfies the letter of the law, the kind of change communicated is so remote from the kind that is communicated in disease that the illustration may not be allowed to be fairly applicable.

Consider, however, the case of magnetism. This is dealt with as a substantial entity. It is accepted as something quite different from the metal by which it is manifested. Yet it never appears apart from the metal. It sometimes appears spontaneously, but more often it is communicated from one piece of iron to another. From one piece of iron it may be communicated to an indefinite number of others. Not only has it the power of propagating itself, but it is highly infectious; it passes with the greatest ease to other pieces of iron in its neighbourhood. Let me add that it is peculiarly apt to originate in certain states of the weather. From the point of view of the watchmaker it is a veritable disease of the metal. And what is this semi-independent entity? It is a particular change in the movements of the metallic molecules—we may call it, almost without metaphor, a specific affection of their functions; and the aggregate of all the changes of the molecular processes is the magnetism of the bar of metal.

The objection may be made that no fair or valid comparison can be made between the vital processes of a living organism and the purely mechanical vibrations in a bar of metal. Let us, then, come still nearer home, and see if there are no phenomena of the normal organism with which the phenomena of disease can in this respect be compared. The art of music, or, to put the same idea in terms more concrete, the art of playing on the piano, is, considered physiologically, an aggregate of movements, that is to say, of orderly processes or functions. These functions have, of course, no existence apart from the body in which they occur. There is no playing on the piano without a person to play; and yet we find no difficulty in recognising that the art of playing the piano is something quite different from the person who plays. People who have never heard of metaphysics are quite accustomed to speak of an art as a separate thing, and to speak of its progress and development and decline without any reference to the persons who manifest it; and yet without these persons the art would, of course, have no existence. Like the specific diseases, the art cannot exist independently of the persons by whom it is manifested; like them, it could not exist in a developed form unless it had undergone cultivation in innumerable predecessors of the person in whom it so exists; like them, it could not exist in any person in a developed form unless it had been communicated to him from one of these predecessors. The art may be considered as it exists and develops in a single individual, just as a disease may be studied in a single case; and again, the art may be considered as it exists in many individuals, just as a disease may be studied not in individual cases, but as an epidemic. It is evident that, in the latter case, both the art and the disease are more completely abstracted from the persons in whom they occur, are treated as having a more independent existence. When we consider a single case of disease, it is impossible to put out of sight for a moment the patient who is its object. But when we consider an epidemic it is possible to treat of the direction and rapidity of its spread, and of the means of transport, without more than a tacit and subconscious reference to the patients by whom it was manifested. Similarly, when we consider the skill of a single musician, we cannot drop out of sight the person by whom it is displayed; but when we compare the English style of playing with the German, the personality of individual musicians is subordinated, and the art is much more separately and abstractedly considered. We may paraphrase Dr. Creighton's expressions, and say of the art of piano-playing, as he says of disease, that, although it is a mere group of bodily processes—a complex



or integrated group,—it has become an individual existence, with a power of propagating itself; it has become a semi-independent thing, and exists not in absolute independence of the body, but autonomous within it. We speak of the origin of an art, and assign to it a definite date and place; we speak of its progress, of its rise in complexity, of the development of its resources, of its cultivation, of its degradation at this period and its rejuvenescence at that; we divide it into varieties, and define their differences; we speak of it being attacked and defended; we treat it in every way as if it were an entity having an independent existence; and yet we know all the time that, apart from artists, the art does not exist. If, therefore, we can form a clear conception of an art as an entity distinct from the individuals by whom it is manifested—a feat which does not need a vast amount of metaphysical knowledge—there can surely be no difficulty in forming an equally clear conception of the kind of independence that is possessed by a disease. The only pre-requisite is to remember that the disease, like the art, is a group of processes, and not a “mere bodily state.” And if the chief stumbling-block in the way of the acceptance of Dr. Creighton’s hypothesis is “the difficulty of conceiving how a . . . condition of the body can become a species of disease,” he may, I think, rest assured that its acceptance is not far off.

Having helped Dr. Creighton, as I hope successfully, over this metaphysical stile, I will venture a short distance with him *ultra crepidam*. The particular ways in which he suggests that the various specific diseases have become developed, are not supported by a sufficient number of facts to gain acceptance, or even to give them a *prima facie* appearance of probability; but this is a matter of no importance. What he has done is to indicate a mode of origin for these diseases which is in accordance with the mode of origin of every other vital process—nay more, of every complex entity whose origin can be traced. In addition to this indication of the general mode, he has given the outline of certain special modes in which individual diseases may possibly have originated. Whether they actually did so originate or no is immaterial. It was enough to show that they could have done so. The detailed exposition of the process will, we may be sure, be the work of many years of laborious research by many observers, but to Dr. Creighton belongs the great merit of having indicated the direction that this research must take. As to his ignoring the existence of bacilli, for which he has been taken to task, this appears to me entirely beside the question. Grant to bacilli all the powers and properties with which it is the fashion to credit them,—grant that they are the *materies morbi*, the essence and soul of the disease,—the question still remains, How did these particular kinds of bacilli originate, and how did they acquire the marvellous properties that they possess? Did they spring into existence in the full maturity of their baleful powers at some past period of the world’s existence, or did they, like every other organism, acquire their special characters by a slow and gradual process of differentiation and evolution? Once the problem has been stated, the answer can scarcely be doubtful. Little or nothing as we know at present of the steps of the process, steps there must surely have been; it remains for future workers to trace them out.

#### SYNOVITIS OF THE WRIST WITH RICE-LIKE BODIES.—

Incision in these cases has come again into favour as one of the consequences of antiseptic surgery. MM. Verneuil, Nicaise, and Notta have communicated to the Société de Chirurgie several remarkable examples of its successful employment; and M. Lafosse has recently published a *thèse* in which the whole subject is reviewed. He concludes that medical means, such as blistering, revulsives, etc., have no effect in these cases. Compression by bandages steeped in alcohol or various stimulant liquids are sometimes useful, but they only act by repelling the riziform bodies into the neighbouring tendinous sheaths. Injections of tincture of iodine give better results, but they are only applicable to unilocular cysts. Incision and drainage, which formerly were followed by severe accidents, such as purulent sinuses, phlegmon, and purulent infection, are now attended by the best results when performed under the strict antiseptic method. Cures by the first intention, although possible, are quite exceptional.—*Jour. de Thérap.*, July 25.

## ON FEEDING BY THE VEINS AND ON INTRAPERITONEAL INJECTION IN THE COLLAPSE OF CHOLERA.

By BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(Continued from page 155.)

*Injection of Milk into the Veins in Cholera.*—My late friend Dr. W. Bird Herepath, of Bristol, suggested in the pages of the *Association Medical Journal* the transfusion of milk in cases of cholera. This suggestion was made on September 1, 1854, but I am not aware that the practice was adopted by anyone in our country. In Canada, however, the same suggestion occurred, I believe quite independently, to Dr. James Bovell, of Toronto, and he was bold enough to put the plan to the test of practical experiment. In an essay which he read before the Canadian Institute, and afterwards published in a separate form, Dr. Bovell gave a history of six cases treated during their last stages by the transfusion into the veins of freshly drawn cow’s milk. In two of these cases, which seem to have been extreme in character and hopeless, the treatment was followed by recovery. The others died, but they too appear to have been benefited for a short period.

It is to be observed that in these cases Bovell injected comparatively small quantities of milk. In one of his successful cases he threw in twelve ounces, in another only eight. These, nevertheless, may have proved quite sufficient quantities to have saved the life, for the process was one of feeding by the veins. Moreover, the results were, without any doubt, much better than those which have followed injections of saline solutions, recoveries of two in six being no contemptible success.

The disadvantages connected with milk seem to me to be twofold. I found by the experiment of mixing milk with blood that the milk does not hold the blood-corpuscles in good suspension. I also found that when fresh defibrinated blood warmed to 100° was mixed with fresh milk at the same temperature, there was very quick coagulation of the caseine, so that the combined fluids did not flow readily through the injecting needle.

At the same time Bovell’s practice deserves to be well remembered, for it may be that milk might prove an admirable basis for a feeding fluid by the veins. It might be advisable to charge milk with saline substance, or with saline substance and some other body—say glycerine, or solution of grape sugar—which would have the tendency to prevent the objections to which I have referred. The addition of phosphate of soda in the proportion of twenty grains to the pint of milk would prevent coagulation of caseine; and the addition of glycerine or of solution of grape sugar of specific gravity 1150 in the proportion of two ounces to the pint would prove a good menstruum for the suspension of the corpuscles. Such solution, warmed to the blood temperature, and slowly injected, would, I doubt not, be admirably adapted to the treatment of the collapse.

The use of saline injections purely cannot, I think, be expected to be of permanent service, for reasons already explained. The saline solution does not sustain, is not in fact a food, while it interferes with the physical character of the corpuscles, reducing them in size and causing great irregularity of outline. Water simply could scarcely be expected to render service when injected: it dilutes the blood extremely, but it has no sustaining power, and, by rapid cooling, tends to reduce the temperature of the tissues.

In 1866 I conducted a long research in order to find out a fluid which would most determinately take up and distribute the corpuscles of blood which had been condensed by the slow evaporation of one-third of its water. The compound which yielded the best response to this inquiry was made as follows:—Of white of egg take four ounces by weight, of common salt one drachm, of phosphate of soda one scruple, of clarified animal fat one ounce, of pure glycerine two ounces, of water sufficient to make one pint. In preparing, dissolve the common salt and phosphate of soda in the water, and having well whipped the albumen, add that also to the water. Place the mixture on a water-bath, and raise the temperature to 135°; keep the mixture steadily stirred, and digest at this temperature for one hour. This



constitutes an artificial serum, the albumen of which hydrates freely. Having taken the artificial serum off the bath, place the fat and the glycerine together in a crucible, and melt the fat in the glycerine. When the process of solution of fat is complete, pour the solution into the artificial serum at 120° Fahr., and stir in carefully; set aside that the fluid may cool to 80° Fahr., at which point all the fat that is insoluble at 80° will float on the surface. Take this off, and filter carefully.

The fluid thus obtained is of pinkish colour, of saline, sweetish taste, and of specific gravity 1038. It picks up semi-fluid blood with instant readiness, and diffuses it most equally. Heated, it takes up one-third more caloric than water in the same time; and in cooling it restores nearly one-third more.

The fluid here described would, I believe, prove most serviceable for feeding by the veins during the collapse, if slowly injected in proportions of not more than four to six ounces at each injection.

I have a word to say in reference to the mode of injecting the veins. The greatest mischief has arisen in transfusion from errors in the process. The operator should ever remember that in this operation he is feeding, not forcing; he should keep in mind how gradually Nature feeds the veins by the thoracic duct, and should imitate her; there is no necessity for force, none for hurry.

Above all things, in feeding by the veins, the syringe should be thrown aside; it is a dangerous and bad instrument for the purpose. To replace it I constructed a simple instrument, which consists of a glass cylinder with a flexible tube running from its lower part or chamber for insertion, by means of a quill or hollow probe, into the vein to be injected. The upper part of the cylinder is provided with a stopper, through which a tube passes connected with a small pair of hand-bellows. Within the cylinder is a small hollow ball or safety-valve regulator, which floats, if there be fluid in the cylinder, until the fluid allows it to descend to a constricted lower part of the cylinder, when all further passage of fluid is prevented. The flow of liquid along the escape-tube can be checked or set at liberty at pleasure by a spring-clip.

In using this instrument, the warm fluid to be injected is placed in the cylinder, and a little is allowed to run through the escape-tube to displace all the air; next, the escape-tube is closed by means of the clip. Then, having opened the vein while it is being pressed upon from above, the quill or hollow probe at the end of the escape-tube is inserted and fixed, and, when all is ready for the fluid to flow, the clip is removed, and the cylinder raised one or two feet above the patient. The pressure so induced will now usually suffice to force the fluid into the body equally and gently; but, if there be any obstruction, the merest pressure of the lower ball of the hand-bellows will remove it. As the fluid descends, the hollow ball goes down with it to within three inches of the bottom of the cylinder, where it is opposed by the constricted neck, which is effectually closed by the ball valve, so that no air can possibly get into the vein.

#### INJECTION OF THE PERITONEUM OR CELLULAR TISSUE IN THE COLLAPSE OF CHOLERA.

On August 22, 1854, I submitted to the East Surrey Medical Society a suggestion for the treatment of cholera during collapse by the production of artificial peritoneal or of cellular dropsy. The idea, which was based entirely on physiological research, created considerable attention at the time, and the suggestion, so far as it relates to injection of the peritoneum, has within these last years been appropriated without a syllable of acknowledgment. I found in my original research that distilled water warmed to the temperature of the body might be injected without the slightest danger, either into the peritoneum or into the cellular tissue of warm-blooded animals, provided that the quantity injected was limited in amount to less than a fifth part of the weight of the body of the animal. I found also that when the body was greatly reduced from removal of fluid, water injected into the parts described was almost immediately absorbed, and that the peritoneum was a sac from which the absorption of very large quantities of water would take place without mischief. The practice was tried in two cases of cholera in man. In one case of my own, eight pints of water were injected into the peritoneum of a patient in collapse; and in another case, ten pints were

injected by a practitioner in Wiltshire whose name I unfortunately forget. In both cases the patients recovered, but in neither was the collapse so complete as to convey the positive assurance that recovery might not have taken place if the injection had not been made. I think it worth while to record these facts relating to intra-peritoneal injection without further comment, but I am of opinion that the plan of feeding by the veins is the sounder practice.

(To be concluded.)

### REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

#### EAST LONDON HOSPITAL FOR CHILDREN.

##### PERITROCHANTERIC ABSCESS—SUBSEQUENT COXITIS—EXCISION—APPARENT RECOVERY—LARDACEOUS DISEASE THREE YEARS LATER—DEATH—AUTOPSY.

(Under the care of Mr. R. W. PARKER.)

I. C., aged two and a half years, was admitted into the East London Children's Hospital, April 30, 1879.

The child's family history was good; which means to say that there was an absence of "consumption," rheumatism, and scrofulous affections.

*Previous History.*—The mother tells us that the child had whooping-cough, followed by "bronchitis" six months ago; he has never been so strong since. He has had during the last few months several "small abscesses" in different places—back of scalp, back, axilla, and on the wrist; these were opened and got better. Eleven days before admission a swelling began in the lower part of the right buttock, which was hard and painful, and which has gradually enlarged.

*Present Condition.*—On admission there is a large fluctuating swelling around and behind the great trochanter, the skin over which is normal. It does not appear to be painful. The thigh is partially flexed on the abdomen, and somewhat rotated outwards. The child is very rickety. The bones of the arms and of the legs are curved considerably, while the radial epiphyses are much enlarged. The child is poorly nourished. *There is no pain in, or fixation of, the hip-joint.*

May 1.—The abscess was opened in its most dependent part, and a very large quantity of pus was evacuated. A drainage-tube was put in. The abscess-cavity appeared to be quite circumscribed; it was superficial to the muscles, and did not appear to have any deep connexions. A weight and extension were ordered for each leg, rather in view of straightening the rickety curves and of keeping the child quiet in bed than for any reason connected with the abscess.

3rd.—There is still a copious discharge. The child takes his food well. The evening temperature 101°.

20th.—The discharge has gone on since last date, varying slightly in amount. The general condition remains stationary. For a day or two past he has had otorrhœa from both ears, and one or two other small abscesses about the body. The temperature is irregular—98° to 101°. He takes food very well.

June 14.—Extension is still kept up on both legs. The boy occasionally complains of pain in and about the hip-joint, but nothing can be detected beyond this. The joint was examined under chloroform, but with a negative result.

July 2.—The condition remains as before. There is some pain and tenderness about the hip on movement or handling. The abscess-cavity has contracted. A probe introduced does not come upon bare bone anywhere. Temperature has been normal lately.

24th.—Examined again under chloroform. It was felt that the condition of the hip-joint was threatening and unsatisfactory, although nothing very definite could be made out. The temperature has been rather high again.

August 19.—It was noted, "No real improvement in the condition up to this date. The leg is never moved voluntarily, and passive movements cause pain. There is some general thickening in the upper third of the femur, with œdema of the soft parts."

September 23.—By this time the hip-joint was obviously affected; there was fulness on its anterior surface, but not



fluctuation; no grating on passive motion under chloroform. The femur continued thickened. A diagnosis was made of slow caries of the upper part of the femur, leading to changes in the head of the femur at its epiphysial line, with infiltration of inflammatory products into the joint.

October 14.—The child has been as well fed up as possible since last note, and permission to excise the joint obtained from the friends, who at first objected to any operative proceedings. Under chloroform the joint was excised. The head of the bone was in part absorbed, the remainder was necrosed. The neck of the bone was extensively carious, soft, and fatty.

21st.—Child has borne the operation very well. He lies very apathetic; takes his food and handles his toys with remarkable indifference; and never talks. The wounds look healthy, and the discharge is sweet.

30th.—He has improved; his temperature is but slightly above normal.

December 1.—Wound is healthy, and almost cicatrised; but the original abscess sinuses are open, and discharge a little.

5th.—The boy was up.

January 18, 1880.—He was discharged into the country.

He was seen occasionally between this and the next date. His sinuses gradually healed up, and the boy grew fat and looked well.

February 2, 1883.—All the wounds were *quite healed*, and the *cicatrices* were *white and supple*. There was no evidence of local disease. His mother brought him on account of "dropsy." She gave a history which led to the belief that the boy had probably passed through a mild attack of scarlet fever (prevalent at the time), and that this dropsy was due to scarlatinal nephritis. On this account he could not be readmitted to the hospital, and thus had to be treated as an out-patient. There was no desquamation at this time. His urine had a specific gravity of 1019; it was acid, and loaded with albumen. In quantity, the mother said it was, as it always had been, rather scanty. There was general oedema over the body, most marked in the feet; the oedema first became manifest in his face, and had come on within the last week or two. He was ordered some acetate of potash and decoction of broom.

16th.—His mother reported that the urine was more copious, and that the stools were watery. He vomited frequently, especially after drinking anything. The boy was not seen this visit, and there was no urine for examination.

23rd.—The mother came to report that the child was much worse, and that he was passing blood in his urine, and too ill to be brought out, unless he could be kept in the hospital. He was therefore sent for, and readmitted.

24th.—Urine pale straw-coloured; scanty; it became almost solid on boiling. No casts were found on microscopic examination, and there were no blood-corpuscles. He had had eight motions during the night, with some straining, and a few streaks of blood in the last. He was not taking any medicine at this time. A vapour-bath was ordered. He sweated profusely during as well as after this bath. He died the same night.

*Autopsy.*—There was no fluid either in the abdomen, the pleuræ, or in the pericardium. The lungs were oedematous; there were old adhesions on the left side. Heart was normal. The liver was waxy, and weighed twenty-seven ounces and a half. The kidneys each weighed seven ounces and a half; their capsules readily peeled off; the cortical substance was swollen and the whole of the organ pale. The joint was examined carefully—it was at first hoped that a specimen of repair after excision would have been found. On the contrary, a process of slow caries was going on in the iliac bone; it was surrounded by thick inspissated pus, which had raised the periosteum from the pelvic surface of the bone, leaving it finely eroded. The upper part of the femur was connected to the remnants of the old capsular ligament by firm, unyielding, gristly connective tissue. The cicatrices were quite firm and apparently healthy. There were a few enlarged glands in the corresponding groin.

*Remarks* (by Mr. Parker).—I was as much disappointed as surprised to find a continuance of the mischief at the hip, which I hoped I had removed. Doubtless this long continued pus-formation was the forerunner of the lardaceous disease of which the child died. Always weakly, it had no strength to throw off its disease, and living under very unfavourable hygienic surroundings did nothing to improve its constitutional debility. The question of scarlatinal nephritis

was, I think, negatived not only by the microscopic examination of the urine, which showed an absence of casts, but also by the presence of lardaceous changes in the liver and spleen, although these were but slight in comparison with some cases which seem to live on notwithstanding. There was an amount of pulmonary oedema, too, which was sufficient to seriously jeopardise life, and yet he did not present much distress until within an hour or two of his death. The connexion between peritrochanteric abscesses and the hip-joint is very obscure. Since the above case came under my observation I have seen many cases of hip disease which have seemed to begin in this manner. I am inclined to regard them as bursæ connected with the joint, which enlarge. From some cause a joint takes on a morbid action, and, as a consequence, there is an increase in the secretion of that joint. If the capsule is perfectly closed and unconnected with any bursæ, tension quickly results, and pain with other manifestations soon attracts attention. On the other hand, if the increased secretion finds its way out into some bursæ, or elsewhere, the disease may go on in the joint for some time before its presence is really detected. I believe that this occurred in my case. I have since adopted precautionary measures in similar cases, and, among the most prominent, the strictest antiseptic measures whenever it is necessary to incise abscesses such as these.

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EFFECTS OF NOISE UPON DISEASED AND HEALTHY EARS.—Dr. St. John Roosa thus sums up the conclusions from a paper which he read to the Medical Society of New York (*New York Med. Record*, April 28), bearing the above title:—1. There is a large class of people suffering from impairment of hearing in ordinary places who hear very acutely and with comfort amid a great din or noise. 2. The disease causing the impairment of hearing thus relieved is situated in the middle ear. It has been usually observed in the chronic non-suppurative form of disease of the middle ear, but it may also be found in acute and subacute catarrh of this part, as well as in the chronic suppurative process. 3. The proximate cause of this phenomenon is not as yet positively known. It is probably to be found in some change in the action of morbid articulation of the stapes with the fenestra ovalis. 4. The hearing-power of persons working in such a din as that of a boiler-maker's shop invariably becomes impaired. 5. The lesion caused by this occupation is one of the labyrinth, or of the trunk of the acoustic nerve. 6. Persons thus affected do not hear better in a noise. Their hearing-power is better in a quiet place, and becomes better after prolonged absence from the exciting cause of their impaired hearing. 7. The cases of inspissated cerumen and catarrh of the middle ear, occurring among boiler-makers, are such as occur among those engaged in other occupations, and mask and complicate the fundamental primary trouble so long known as boiler-makers' deafness. 8. In disease of the labyrinth or acoustic nerve, the tuning-fork "C" is heard louder and longer through the air than through the bones of the head. In the course of the discussion on the paper, Dr. Roosa observed that he had assumed two things which he expected would be doubted, and they had been doubted; but he did not think that they had been disproved. He had the fortune to be a pioneer in this kind of investigation, and had come to believe that in the tuning-fork we have the means of making a differential diagnosis between disease of the middle and internal ear. Hearing bells in a noise was another means; and by employing these two aids he believed that a differential diagnosis in these cases could be satisfactorily made. Practice in ear diseases has gone to extremes. Only a few years ago nearly every otologist followed Kramer, who said that the acoustic nerve was the part most commonly affected; then Wilde, who said that disease of the middle ear explained all the symptoms; later, the Germans, who came with catarrh of the middle ear, and swallowed all previous theories. At present, no matter what the affection may be, the organ must be blowed up almost invariably, according to some authorities, and their teaching is practised by a great number of otologists. Dr. Roosa was contending against that view, and was trying to prove that there is quite a large proportion of cases of deafness in every vicinity, due to acoustic trouble, which are incurable; and that it is better to let them alone than to be continually blowing them up with an apparatus.



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Medical Times and Gazette.

SATURDAY, AUGUST 18, 1883.

## LUNACY LAW REFORM.

THE Government have determined to reform the law of lunacy. It has long been anticipated that this subject would occupy the attention of the Legislature, but there has been little expectation on the part of the medical profession, nor, we believe, was the idea entertained even by members of Parliament who, like Mr. Dillwyn, have specially interested themselves in the subject, that it would be taken in hand so soon, and treated after so revolutionary and drastic a fashion. Those who are acquainted with Lord Shaftesbury's views, and who realise the great authority with which he speaks, and the powerful influence of his opinions, have accustomed themselves to believe, indeed, that the system of private asylums was one which, good or bad, must eventually be crushed beneath the weight of public opinion ; but the fate of Mr. Dillwyn's motion on this subject in a previous session of the present Parliament has, of course, rendered any action of this description impossible for the present, and the proprietors of these institutions may breathe freely for a time. The proposed reform has no direct reference to the detention of patients in private asylums, nor indeed in asylums of any description, but refers only to those who have brought themselves within the meshes of the criminal law. The defects in our methods of determining the sanity or insanity of persons accused or convicted of crime are so glaring, so widely recognised, so frequently forced upon our notice by notorious trials, that, far from wondering at any effort being made to remove them, we can only be astonished that they have been suffered to remain so long unremedied. The system of calling experts for the defence, and rebutting their evidence by that of experts for the prosecution, is so utterly indefensible, that, after the attention of the public had been prominently called to its shortcomings by the scandal of the Guiteau trial, it was manifestly doomed ; and the substitution of medical assessors appointed by the court is known to be the alternative recommended with one voice

by all men competent to speak on the subject. Such a reform as this will certainly mark an era in the history of the criminal law of this country, and will entitle the Government that carries it out to the gratitude of the medical profession, and the esteem of the country at large. The reform that the Government have now in hand does not, however, extend *quite* so far as we could wish in this direction. In a very important letter to the *Times*, Dr. Bower made the suggestion that the system for ascertaining the condition of a prisoner's mind which is in vogue, it appears, in Norway and elsewhere, should be adopted in this country. The system is an excellent one. Prison surgeons, as Dr. Bower says, are not required to possess any special knowledge of insanity, and in the rare cases where the advice of specialists is taken by the authorities, brief interviews only can be obtained; and for the detection of either feigned or concealed insanity it is necessary for the examining physician to have the opportunity of continuous observation of the person for several days, and even weeks. In order to supply these opportunities a prisoner should, it is evident, be removed to an "observation-ward" in some public asylum, where his case can be thoroughly investigated. Such a method supplies a most efficient means, and probably the only efficient means, for determining with certainty the question of sanity or insanity in such cases as those supposed; and when it is adopted a great advance will have been made both in the certainty and in the humanity of the law, which, properly considered, are the same thing. The reform in the law which is immediately to be carried out, and which can scarcely meet with serious opposition from any quarter, does not, however, go even so far as this.

The Bill that has been introduced into the House of Lords by the Lord Chancellor (particulars of which will be found in another column) does not cover all the ground that is occupied by the questions we have just considered. It provides that where a prisoner on his trial is found to have been insane at the time that he committed the offence for which he is tried, the jury shall return a special verdict to the effect that he is guilty of the offence, but was insane at the time that he committed it. The whole scope and intention of the Bill is to substitute a verdict of "Guilty, but insane" for the verdict of "Not guilty, on the ground of insanity,"—a technical, or rather a verbal, improvement that will leave all proceedings connected with the trial of the prisoner, and his treatment before and after trial, exactly as they are at present! This is the reform on which the Government have determined. For this purpose a Bill is to be brought in, to be read a first time, to be read a second time, to be referred to a committee, to be reported, to be considered on report, to be read a third time, and to be passed through the House of Lords; and when these proceedings are complete, the same process has to be gone through in the other House, and finally the Royal Assent will make the Bill law. To put in motion the cumbrous machinery of legislation, and to pass an Act of Parliament, for the sole purpose of altering one form of words for another form of words having virtually the same meaning and exactly the same practical effect, is a proceeding at which the non-legal mind may well be amazed. During a session which is so blocked with an excess of legislative business that the Government have again and again lamented their inability to pass measures of the utmost importance, and have denounced in the strongest terms the "veiled obstruction" which, they say, has prevented them,—a session in which the Opposition has again and again expressed its triumph at the inability of the Government to deal with the mass of business before them,—the Lord Chancellor can find time to bring in a Bill of four hundred and twenty words for the purpose of substituting three words for seven! It is not that there is no other means



of effecting this important reform. A Bill is already in existence, has been read a first time, and a second time, referred to a Grand Committee and considered there, which has for its purpose to codify the whole criminal law; and although it will not reach its third reading this session, it will probably do so next session, and certainly, accidents apart, during the present Parliament; and it might seem to the uninitiated as if the alteration in the wording of a verdict were a matter of such petty detail that it might well be relegated to some sub-clause in a Criminal Code Bill. But the highest legal authority in the kingdom thinks otherwise. The defect which hurts nobody is too important; the reform that has slumbered for generations is too urgent to wait for the general revision of the Criminal Code! It must be done instantly; it must have an Act to itself! Who can say after this that the Government is indifferent to the reform of the lunacy law? Seriously, what are we to think of a Lord Chancellor who can bring his office into ridicule by legislation of this character? Such a proceeding might have well suited the disposition of Lord Eldon, but even among lawyers hair-splitting has now gone out of repute; and the last person to revive so evil a practice should be the Lord Chancellor of a reforming Ministry.

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### HÆMOGLOBINÆMIA.

PROFESSOR PONFICK has recently published an article in the *Berliner Klinische Wochenschrift*, No. 26, on hæmoglobinæmia and its consequences. It is known that many agencies have the property of displacing the hæmoglobin from the red blood-discs, so that the colouring matter is discharged into the blood-plasma. The transfusion of foreign blood, *i.e.*, blood from a donor of different species to the receiver, burns of the surface of the body, and many chemical substances (pyrogallie acid, arseniuretted hydrogen, potassic chloride, etc.), possess this property. Peculiar as is the bond of connexion between the stroma of the red blood-disc and its hæmoglobin, yet the union is very easily dissolved. In fact, to prepare hæmoglobin from the dog's blood, it is sufficient to add ether, and keep in a cool place, then filter the red mass of crystals thus formed, redissolve in water, and recrystallise. From what has been said, there will be no difficulty in comprehending the full meaning of the term hæmoglobinæmia. The notions which Ponfick has on the subject may be enumerated in the following fashion. There are different degrees of hæmoglobinæmia. When this state exists the altered products (of the blood) are disposed of in three directions. The spleen is enlarged with the fragments resulting from the destruction of the blood—that is one direction. The liver secretes an excessive quantity of bile (hypercholia); and, lastly, the *débris* of the decomposition of the blood (implied in the setting free into the blood-plasma of the hæmoglobin) is excreted by the kidneys. With limited hæmoglobinæmia there is neither hæmoglobinuria nor icterus. When the hæmoglobinæmia is greater in degree, some of the colouring matter of the blood appears in the urine, and there are signs of slight and transient jaundice. Profound destruction of the red blood-elements is followed almost instantaneously by intense and prolonged hæmoglobinuria (associated with exudative nephritis) as well as marked and severe icterus.

Much food for reflection is offered in these scientific speculations by Ponfick. The views promulgated may help to throw light on many morbid phenomena. Good grounds certainly exist for the opinion that the spleen and possibly other organs are concerned in the destruction of the red blood-discs. A further consideration is the fact that the blood is constantly being destroyed and renewed. Now, if there be

constantly going on a dissolution of the red blood-elements, it follows that at least a local hæmoglobinæmia always exists; unless, indeed, we regard the dissolution as always occurring in the solid elements of the tissues concerned. Some physiologists teach that the hæmoglobin thus set free is converted, probably by the hepatic tissue, into bilirubin, the principal colour-constituent of the bile. There is much plausibility in such a view. Indeed, it is very probable that hæmoglobin is the source of all the pigments of the body. Granting these considerations, we may conceive how, step by step, an increase in the degree of hæmoglobinæmia may entail all the consequences which Ponfick has claimed for this excessive destruction of the red blood-discs in the blood circulation. The importance of these plausible conjectures in connexion with the explanation of the occurrence of hæmatinuria and jaundice, which have been so often observed in malignant and septic fevers, is obvious. Again, hæmatinuria has been met with in purpura and scurvy, also after poisoning by arseniuretted hydrogen or carbonic anhydride, and as a distinct affection, named paroxysmal or intermittent hæmatinuria. The relations which have been observed to subsist between ague, oxaluria, rheumatism, and this intermittent hæmatinuria are well worth remembering at this time. If the enlargement of the spleen in ague coincide with the excessive production of hæmoglobinæmia we might expect some corresponding evidence of the excessive production of blood-pigment. It would perhaps require no great ingenuity of argument to harmonise these considerations with the facts observed in acute and chronic malarial poisoning. Hæmoglobinæmia may be looked upon also as the precursor of icterus in the form which has been known as "hæmatogenous" jaundice. The actual coexistence of hæmoglobinuria and icterus is spoken of by Ponfick, and he believes that the hæmoglobin passes over unchanged in the urine when the liver is incapable of converting it into bilirubin, the power which the liver has in this direction being limited.

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### TROPHIC NERVES AND NERVE-CENTRES.

AMONGST the pressing problems of general physiology and pathology there are few that are at once more complex in themselves, and more promising in their solution, than the relation of the nervous system to nutrition. "Trophic" nerves have been long and patiently searched for, and many have been the positive and negative arguments to which we have had to listen in the discussion as to their existence. The cornea was long the favourite battle-field of the opposed doctrines, and we confess to having felt heartily tired of ulcerative keratitis after lesion of the fifth nerve. Perhaps at that time we were inclined to look upon trophic nerves as nothing more than physiological curiosities in their way, with little or no bearing upon the greater and graver questions of pathology. It must be acknowledged that opinions are now greatly changed in this matter. The remarkable series of cases of disease of the skin, joints, bones, nails, teeth, and hair—not to mention other structures—which have been traced to connexion with lesion of the nerves or nerve-centres, whether traumatic or not, are alone sufficient to arrest our attention. The very suggestive associations between the phenomena of rheumatism and allied disorders, on the one hand, and the nervous centres for the motorial, circulatory, and heat functions, on the other hand, have led to various theories of the "trophic" origin of these morbid conditions. And, of equally extensive interest, the influence of nervine drugs, and other therapeutical measures which affect the nervous system, upon nutrition as a whole, and upon pyrexia in particular, has come to claim the earnest attention of the pharmacologist.



The area of importance attaching to the doctrine of trophic nerves and trophic centres having thus enormously widened, it is not remarkable that attempts have been renewed to investigate the physiology of the connexion between the central nervous system and the life of the outlying tissues. It seems curious at first sight that pathology should furnish the chief material for such investigations, but such is the case. The closest examination of ganglia, nerve fibres and cells, has not, so far as we are aware, revealed much more than was described by Heidenhain, Pflüger, and others respecting the changes of secreting cells under the influence of nervous stimuli. It is to experimental pathology and to clinical medicine and surgery that we must turn, if we wish to become possessed of facts bearing on nutritive nerves and centres, although we thankfully acknowledge much assistance from experimental physiology also.

The results of recent investigations have given a very interesting turn to our views on this subject, indicating, as they very plainly do, that there is a medium between the nervous structures and the tissues in many—we do not say in all—instances, and that this medium is the circulation. In other words, it would appear that a large number of the cases of “trophic” lesions are really immediately referable to changes in the nutrient vessels of the affected part, the result of disturbances of the vaso-motor system of nerves and centres. We have now to record the results of a long and laborious investigation carried out by Lewaschew, of St. Petersburg, and recorded in *Pflüger's Archiv* (xxviii., p. 389), *Virchow's Archiv* (xcii., p. 152), and *Centralblatt f. d. Med. Wiss.* (1883, p. 193). Lewaschew seems to have set himself to discover, if possible, the influence of lesions of nerves in the production of aneurysm and other diseases of the vessels; and he obtained, in addition to these, very important changes in the bones, skin, muscles, and other structures of the leg and foot (in the dog) when the sciatic nerve was injured. The method followed was to irritate the sciatic nerve with medicated ligatures, and watch the result. The first phenomena in the limb may be described as the effects of dilatation of the vessels: the parts became hyperæmic, swollen, and tender, and the vessels pulsated. And these changes were not evanescent; on the contrary, they lasted several months, after which they declined with some rapidity, leaving certain more permanent lesions appreciable behind them. The muscles and skin appeared atrophied, the subcutaneous tissues were sclerosed, the local temperature fell, the bones were reduced in size, and the vessels were locally dilated. Careful microscopical examination revealed vascular dilatation, perivascular growth, and finally a regular cirrhosis or sclerosis of the parts. All this, let it be noted, was the outcome of an interference with the sciatic nerve insufficient to paralyse the muscles of the limb. Lewaschew's opinion is very distinctly in favour of the view that the primary vascular dilatation was *not a paralytic*, but an active phenomenon, the result of *irritation of vaso-dilator nerves*. A comparatively new aspect of the question is here presented to us, and the present investigation is but one of several which have recently brought into prominence the existence and importance of the second system of vascular nerves, which—in opposition to the vaso-motor fibres—act as vessel-dilators, and increase the flow of blood through a part. Within the last few weeks, Professor Bowditch and Dr. J. W. Warren, of Boston, have announced that a rapidly interrupted induction-current will cause contraction of the vessels innervated by the sciatic, to the cut (peripheral) end of which it is applied; whilst a slowly interrupted current, under the same circumstances, will be followed by dilatation of the vessels (*Centralblatt f. d. Med. Wiss.*, 1883, July 21,

p. 513). These and similar results in the same direction remind us of the “glossy swelling” and associated changes, observed by Weir Mitchell and others after injury to nerve-trunks. Altogether, it would appear as if we had now made a decided step forwards in the explanation of trophic lesions as a whole, and a step, we trust, towards the solution of the other all-important problems in general pathology to which we have referred above.

## THE WEEK.

### TOPICS OF THE DAY.

It is undoubtedly a matter for public congratulation that Mr. Archibald Dobbs has established his case against the Grand Junction Waterworks Company. The plaintiff occupied a house in Westbourne-park, and the Company, being authorised by the Act 15 and 16 Vic., c. 157, to levy water-rates on dwelling-houses according to their “annual value,” made an assessment on him at the “gross rent,” without making the deductions—tenants’ repairs, insurance, tenants’ rates, etc.—which are usually made in order to reach the net value on which the poor-rate is assessed. Mr. Dobbs insisted that the true basis of rating was the net value alone. The metropolitan police magistrate before whom Mr. Dobbs was summoned decided that he was liable on the gross value, but stated a case for the opinion of the Queen’s Bench Division. The Queen’s Bench Division, consisting of Justices Field and Bowen, reversed the decision of the magistrate, holding that Mr. Dobbs was liable on the net value only. The Court of Appeal—viz., Lord Coleridge and Lords Justices Baggallay and Lindley—reversed the decision of the Queen’s Bench Division, and held that the assessment should be made on the gross value. The appeal from their decision to the House of Lords was argued at considerable length, and the Lord Chancellor has now announced that their lordships are unanimously of opinion that the decision of the Court of Appeal should be reversed, and that of the Queen’s Bench Division restored, for reasons which would be given hereafter. It is calculated that this decision will bring about to householders a reduction of about 4 per cent. in their water-rates, that being the difference between the “gross estimated rental,” on which the Grand Junction Company contended that the percentage for water should be charged, and the “net rateable value,” which Mr. Dobbs put forward as the right basis. The legal opinion, however, seems to be that the householder will not be able to recover from the companies any part of the sums overpaid to them. The *Law Journal* thinks it is a remarkable commentary on the absence of all control over private bodies fulfilling public duties, that from the year on which the Queen came to the throne until now, verging on half a century, water-rates have been charged 4 per cent. higher than the law allowed.

Messrs. Edwards and Symes, of Millwall, having completed the ambulance small-pox steamer constructed by them for the Metropolitan Asylums Board, she was last week launched in the presence of a large company. It is almost unnecessary to remark that this is the first vessel ever launched in connexion with Poor-law administration; but, as Mr. Galsworthy, the chairman of the Metropolitan Asylums Board, explained, the building of this vessel is one of the links in the chain of experiments which the Board are making to endeavour to carry out the views of the Royal Commission in respect to the establishment of floating small-pox hospitals. The vessel, which was duly christened by Mrs. Galsworthy the *Red Cross*, is built of iron, and is 104 ft. in length, by 16 ft. 6 in. in breadth, and 6 ft. deep. She is a paddle steamer, and, under contract, is to be delivered to the Asylums Board complete in every particular



—even to furniture—for a sum of £4500. The ambulance arrangements will comprise eighteen berths forward, for the transit of acute cases, and cabin accommodation aft for convalescent patients.

The following case, which was heard at the West Ham Police-court, once more raises the question as to the advisability of establishing public furnaces for the destruction of refuse by burning, as is done in some country towns. The Surveyor of the Mile End Old Town Vestry appeared to an adjourned summons taken out by the Chief Sanitary Inspector of the West Ham Local Board, for depositing the contents of dustbins and other offensive matter, in such a state as to be a nuisance or injurious to health, on the 1st inst. The Mile End Old Town Vestry had, it appeared, received permission from the Carpenters' Company to shoot their rubbish on a piece of ground in Carpenters'-road, Stratford, and on August 1 about 200 cart-loads were deposited there, creating a great stench; and when the Sanitary Officer of West Ham visited the spot with Dr. Drake, the latter at once pronounced the stuff to be a nuisance. In defence it was endeavoured to be shown that no nuisance was created. The magistrate did not give his decision until he had himself inspected the ground, when he decided that the deposit was a nuisance, and made an order for its abatement. A public furnace would have reduced all this offensive animal and vegetable matter to ashes, and would have obviated the danger of forming an unhealthy foundation for future buildings.

At the meeting recently convened by the National Smoke Abatement Institution to be held at the Mansion House, the Chairman (the Lord Mayor), in opening the proceedings, said that the object of the Institution was nothing less than the rendering more pure the air of large towns, and the consequent improvement in the health of their inhabitants. The vast quantity of smoke which was created in all large towns was known to be productive of great damage to life and health, and if the labours of the Institution resulted in a purer atmosphere being obtained, very great benefit would be derived. He had lately been particularly struck with the purity of the atmosphere in the City on a Sunday, which was due to the fact that so few fires were alight on that day. The Duke of Westminster, who had subscribed the munificent sum of £500 to the funds of the Institution, moved the adoption of the report. In doing so he said he had authority for stating that, in addition to the danger of the lives and health of the population of London, the value of the unburnt fuel which escaped in the shape of smoke in the metropolis alone was one million sterling, while the damage this smoke did to property was at least twice as much. Sir Spencer Wells having seconded, and Sir F. Abel, F.R.S., having supported the adoption of the report, it was unanimously agreed to. The Duke of Northumberland next moved a resolution, which was carried, to the effect that inquiry into the resources of technical science for the abatement of smoke was desirable, and that the Government should be urged to appoint a Royal Commission for that purpose.

We have often had to record serious cases of milk adulteration in this country, but none of them have come up to a case recently reported to have occurred in Ireland. At the Dublin Police-court, on the 10th inst., a milk contractor to the Ship-street Barracks was summoned, at the suit of one of the food inspectors, for having on July 25 supplied a quantity of new milk for the use of the 1st Battalion East Kent Regiment, which was adulterated with 243 per cent. of added water, or nearly two gallons and a half of water to one gallon of milk. The milk was analysed by Dr. Cameron, the public analyst, who certified the adulteration mentioned.

The case was somewhat complicated by a charge which was brought against the food inspector of having recommended another milk contractor to take up the contract of the accused milk-seller, but in reality this had nothing to do with the present charge, and at the end of the proceedings the defendant was fined £20.

The daily press continues to be appealed to by correspondents from the various garrison towns, to bring to public notice the disastrous effects which are, even at this early date, accruing from the late interference with the action of the Contagious Diseases Acts. In nearly every case the writers are persons who speak with authority, and who come forward to ventilate the question on purely social and sanitary grounds, apart from any partisan feelings. At Aldershot, within the last three months, the cases of venereal disease have increased 50 per cent.; but this is not the worst feature, for the type of the disease has become distinctly worse. The military hospitals are returning to their former condition of an excess of syphilitic patients, and it is well known that every regiment contains a large number of men who, though suffering from the disease, refrain from reporting themselves to the doctor. In the military hospital at Stoke, Devonport, patients have risen to 184 from 118; in the naval hospital, Stonehouse, to 100 from 45; while for reasons similar to those mentioned in the case of Aldershot, no official returns convey an adequate idea of the total number of cases. The *Portsmouth Evening News* has also in the most earnest manner called attention to the alarming condition of both soldiers and sailors at Portsmouth and Southampton. It is pointed out that, even when the Acts were in full force, men in large numbers were annually discharged as unfit for service, in the worst stages of the disease; and under the present system, or want of system, hundreds of men will every year be sent adrift to spread this horrible scourge broadcast through the land. It may very fairly be asked, what would have been thought of the Government which would deliberately proceed to paralyse all established efforts to deal with the suppression of small-pox or scarlet fever? Yet this is undoubtedly a parallel case; but, unfortunately, the question is surrounded with a morbid sentimentality which has induced a large section of otherwise right-minded persons to advocate tenets which bring them very nearly into the category of Peculiar People.

It seems unfortunate that some definite arrangements cannot be made for the burial of poor persons who die in Guy's Hospital, since it is hardly creditable that in this great city, every now and again, cases such as that which occurred last week have to be recorded. A poor woman applied at the Southwark Police-court, and stated that her father had just died in Guy's Hospital, but she was not in a position to bury him. The relieving officer of St. George's Parish, in which her father had lived, referred her to the officer in Bermondsey Parish, who told her that he had nothing to do with it, and advised her to see the officer in the parish of St. Olave's. The latter, however, would have nothing to say in the matter, so she returned to the Hospital, but was informed there that they could not bury her father, as they had no funds for that purpose. Mr. Bridge ordered the body to be removed to St. George's mortuary, and directed that some inquiries should be made. Two days afterwards it was reported to him that a gentleman had paid for the removal of the body to St. George's mortuary, and the parish authorities had given an order for interment, the difficulty having arisen through a dispute between the different parochial authorities. Mr. Bridge commented, with some severity, on the whole proceedings, and said that it was a reproach to all the parties concerned.



## THE CHOLERA IN EGYPT.

THE last telegram received at the War Office from the General Officer commanding in Egypt, which was from Cairo and dated August 15, stated that at El Warden one soldier of the Gordon Highlanders, who had been in hospital with dysentery since the 8th inst., was attacked with cholera on the 13th, and died on the 14th. At Helouân also, a soldier of the same regiment, in hospital with febricula since the 11th inst., was attacked with cholera and died on the 14th. There have been no fresh cases at any other station. The *Times* correspondent at Alexandria states that the Khedive had, on the 15th inst., visited the German-English Hospital, the Greek Hospital, and the Gabarri Cholera Hospital established by the Alexandrian Voluntary Committee, where his Highness spoke to the cholera patients, and complimented the medical men and the nurses on the arrangements. The prevalence and severity of the disease appear to be lessening everywhere. In Alexandria the deaths from cholera in the last reported period of twenty-four hours were forty; but the Alexandria death-rate from ordinary diseases was very high.

## THE HEALTH OF LONDON.

THE Registrar-General's return shows that the annual rate of mortality for the week ending August 11 in twenty-eight great towns of England and Wales averaged 18.4 per 1000. The six healthiest places were—Halifax, Wolverhampton, Birkenhead, Blackburn, Bradford, and Derby. In London the births were 291, and the deaths 327 below the average numbers in the corresponding weeks of the last ten years. The annual rate of mortality from all causes, which had been equal to 23.5, 21.2, and 19.3 per 1000 in the three preceding weeks, further declined last week to 17.3. The deaths attributed to diarrhoea and dysentery, which had been 351, 254, and 168 in the three preceding weeks, fell to 94 last week, and were 176 below the corrected weekly average; 69 were of infants under one year of age, and 18 of children between one and five years of age. The death of one child, twenty months old, was referred to choleraic diarrhoea. In the Outer Ring the 25 deaths attributed to diarrhoea included 9 in West Ham and 7 in Edmonton districts.

## HOSPITAL ACCOMMODATION FOR GLASGOW.

DR. RUSSELL, Medical Officer of Health, has issued a "Memorandum on the Hospital Accommodation for Infectious Diseases in Glasgow." The first question with which Dr. Russell deals is thus stated—"What ought to be the aggregate extent of hospital accommodation in Glasgow?" On this subject he reviews the past experience of the city, and gives tables showing the hospital bed accommodation, and the highest and lowest numbers of patients under treatment at one time. Regarding this first question his opinion is that the aggregate fever requirements of Glasgow cannot be less than 550 to 600 beds. For small-pox alone there is hospital accommodation with 150 beds; and he hopes that, by timely isolation and stringent vaccination, demands on hospital accommodation may be as favourable as in London. It may be noted that the aggregate hospital accommodation recommended by the Royal Commission for London equals 1.32 per 1000 of the population, with space to extend it to 1.48. The aggregate which is recommended for Glasgow is 1.31 to 1.41. The next question considered is—"Ought all the epidemic bed accommodation of Glasgow to be concentrated in one place, or ought there to be more than one hospital." Dr. Russell says—"It is obvious that the size of infectious hospitals must be kept within reasonably manageable limits, and the experience of general hospitals affords no criterion for the determination of the size proper

for fever hospitals. It is believed that the difficulty experienced at times in getting parents to trust their children in hospitals arises from temporary deterioration in the ward service in times of pressure, and that much of the mischief caused by small-pox hospitals in their environs had its origin in epidemic expansion beyond the efficient control of the chief officials." From this point of view the conclusion is that there must be at least two fever hospitals for Glasgow, and having 300 beds in each; but there would not be any serious objection to having one of 350 and the other of 250, or even 400 in one and 200 in the other. Dr. Russell is further of opinion that two hospitals of 300 beds each could be managed as economically as one with 600 beds if fully occupied; but the general principal is all-important. He then makes suggestions as to the structure and administration of "Belvedere Fever Hospital," and recommends alterations and improvements.

## TRIAL OF LUNATICS BILL.

THE Bill introduced by the Lord Chancellor "to amend the law respecting the trial and custody of insane persons charged with offences," provides as follows:—"1. Where in any indictment or information any act or omission is charged against any person as an offence, and it is given in evidence on the trial of such person for that offence that he was insane, so as not to be responsible, according to law, for his actions at the time when the act was done or omission made, then, if it appears to the jury before whom such person is tried that he did the act or made the omission charged, but was insane as aforesaid at the time when he did or made the same, the jury shall return a special verdict to the effect that the accused was guilty of the act or omission charged against him, but was insane as aforesaid at the time when he did the act or made the omission. 2. Where such special verdict is found, the court shall order the accused to be kept in custody as a criminal lunatic, in such place and in such manner as the court shall direct, till Her Majesty's pleasure shall be known; and it shall be lawful for Her Majesty thereupon, and from time to time, to give such order for the safe custody of the said person during her pleasure, in such place and in such manner as to Her Majesty may seem fit. 3. All provisions in any existing Act, or in any rules or orders made in pursuance of any existing Act, having reference to a person or persons acquitted on the ground of insanity, shall apply to a person or persons in respect of whom a special verdict is found under this Act."

## ZYMOTIC DISEASES IN NEWCASTLE-UPON-TYNE.

THE Medical Officer of Health for Newcastle, Mr. Henry E. Armstrong, in submitting his annual report for the year 1882, remarks that the experience of the past twelve months has been of exceptional sanitary interest. The concurrent prevalence during many months of typhus and small-pox, to an extent greater than has been assumed by either disease in any other corresponding period of the past decade, has been a subject of serious responsibility, and has taxed the exertions of the Sanitary Authority to the uttermost. The rate of mortality from the chief zymotic diseases is shown to have been 3.9 per 1000 of population, as compared with rates of 3.0 and 3.3 in 1880 and 1881 respectively. Thus the deaths from small-pox numbered 57, as against 10 in 1881; from scarlet fever, 82, against 52; from whooping-cough, 107, against 70; from typhus, 30, against 20; and from diarrhoea, 159, against 149. Newcastle-upon-Tyne is not absolutely deficient of means for isolating persons suffering from infectious diseases, but during the past year the hospital requirements were found to be insufficient; and consequently in August a small-pox con-



valescent home was opened at Byker, and towards the close of the year a temporary small-pox hospital, built of wood, was erected on the Town Moor, in an open airy situation, remote from dwellings. Upon the completion of this latter building it was considered expedient to close the small-pox wards in the Bath-lane Hospital, since it was evident that the results of treatment were becoming unsatisfactory, several cases being accompanied with erysipelas and other allied forms of disease. Moreover, the report says, there was a suspicious prevalence of small-pox in Stowell-street and the densely populated locality adjoining the Hospital premises.

#### THE APOTHECARIES' HALL OF IRELAND.

At the annual meeting of the General Council of the Apothecaries' Hall of Ireland, convened by authority of the Act of Incorporation on August 1, 1883, the following members were elected as office-bearers for the ensuing year:—*Governor*: Thomas Collins, Esq. *Deputy Governor*: Robert Montgomery, Esq. *Court of Directors and Examiners*: Edward H. Bolland, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Richard George O'Flaherty, Edward J. O'Neill, Sir George B. Owens, John Ryan, James Shaw, George Wyse, Esqs. *Representative on the General Medical Council*: Thomas Collins, Esq.

#### ROLLESTON MEMORIAL.

THE total sum subscribed for the Rolleston Memorial amounted to £1183 5s., to which was added £59 7s. 5d., dividends paid on sums invested from time to time in Consols before the list was closed. Deducting all expenses, a capital sum of £1205 15s. 8d. remained, which has been invested in £1200 Three per Cent. Consols. This sum has now been transferred to the Chancellor, Masters, and Scholars of the University of Oxford, and accepted by them as the Rolleston Memorial Fund under the following conditions:—That the fund be expended in the institution of a prize to be awarded every two years, and that the prize be given for original research in any subject comprised under the following heads:—Animal and vegetable morphology, physiology and pathology, and anthropology—to be selected by the candidates themselves. That the period during which this prize may be obtained by a candidate be limited to ten years after the date of matriculation; and that, with a view to render the prize as widely associated with Professor Rolleston's name as possible, it be open to the members of the Universities of Oxford and Cambridge. That the amount collected after payment of all expenses be made over as a trust fund to the University of Oxford, which should appoint the necessary trustees, carry out all other arrangements, and make regulations. That if no memoir be considered of sufficient merit, the value of the prize for that year be added to the capital of the fund. And that the prize shall be called "The Rolleston Memorial Prize," and shall consist of so much of two years' income of the fund as shall remain after payment of all expenses incidental to the trust.

#### ST. GEORGE'S HOSPITAL.

FROM a very interesting report by Mr. Charles Hawkins, F.R.C.S., sometime a member of the Council of the Royal College of Surgeons, it appears that from 1873 to 1883 the number of in-patients in St. George's Hospital amounted to 35,654, and the out-patients to 146,953, making the large total of 182,607. In analysing the expense per patient in 1830 and 1880, the variation in cost is curious in some of the items. Meat in the former year cost 18s. 4d. per patient; in the latter it had increased, as might be expected,

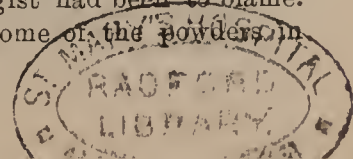
to £1 2s. 2d. On the other side, bread and flour, which in 1830 cost 10s. 7d. per head, had fallen to 4s. 1d. in 1880. Wines and spirits in 1830 amounted to only 10d., but in 1880 had increased to 3s. 3d. For officers, nurses, and servants, in 1830 the cost was £1 0s. 3d.; in 1880 it had increased to £1 14s. 3d. There are now 431 beds in the Hospital.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-first week of 1883, terminating August 1, was 950 (509 males and 441 females), and of these there were from typhoid fever 30, small-pox 8, measles 22, scarlatina 2, pertussis 13, diphtheria and croup 23, erysipelas 4, and puerperal infections 4. There were also 48 deaths from tubercular and acute meningitis, 169 from phthisis, 17 from acute bronchitis, 43 from pneumonia, 114 from infantile athrepsia (44 of the infants having been wholly or partially suckled), and 33 violent deaths (24 males and 9 females). This week's mortality is the smallest that has been registered this year, being notably inferior to the mean of the last four weeks (1012). The epidemic diseases call for no remark: typhoid fever, which had exhibited a recrudescence at the end of June, having fallen back to its habitual number (80). Measles is the only epidemic disease that has increased somewhat. The number of deaths from phthisis (169) may be regarded as normal for this time of year. Pneumonia and athrepsia have both diminished. The births for the week amounted to 1160, viz., 533 males (400 legitimate and 133 illegitimate) and 627 females (455 legitimate and 172 illegitimate), the great preponderance of female births being again remarkable: 96 infants were either born dead or died within twenty-four hours, viz., 57 males (45 legitimate and 12 illegitimate) and 39 females (31 legitimate and 8 illegitimate).

#### THE ABERDEEN POISONING CASE.

A COMPROMISE has been effected in the action brought in the Aberdeen Sheriff Court, lately, by a widow against a druggist in Aberdeen, in which £750 was claimed as damage for the loss of her husband. The plaintiff purchased from the defendant's shop a quantity of salicylate of soda, which she ascertained from a weekly periodical was a specific for the ailment, rheumatism, from which her husband was suffering. She administered a dose of the drug to him, and he died within seventeen hours with symptoms of narcotic poisoning. The averment on which the action was founded was that the drug purchased from the defendant was not of the nature of salicylate of soda, but was an injurious article, and had caused her husband's death. This averment the defendant denied, pleading that the same drug had been sold to other customers without producing any pernicious effect, and that the death of the plaintiff's husband was due to other causes. The defendant, however, agreed to pay £400 to the plaintiff in full satisfaction of all damages sued for, and costs. The Sheriff considered that the settlement arrived at was very satisfactory, and authorised it. It was stated in court by the counsel for the plaintiff that Mr. Sangster, the druggist, had obtained the drug from an eminently respectable firm of chemists, and was entitled to trust that he should get it in a pure state; and, moreover, that the remainder of the powders supplied to the plaintiff had been examined, on the part of the Crown, by a medical gentleman, who had reported that they consisted wholly of salicylate of soda. It had since been proved that this examination of the powders had been incomplete, the test for salicylate of soda only having been applied. There was nothing to show that the druggist had been to blame. But it appears that on August 1 some of the powders in





question were sent to Dr. Stevenson Macadam, of Edinburgh, for examination; and his report, as published in the *Aberdeen Evening Express* of the 8th inst., states: "The qualitative analysis revealed the presence of salicylate of soda, accompanied by much soluble morphia salt, and giving all the reactions and tests for muriate of morphia. The quantitative analysis of the powder yielded as follows:—Morphia crystallised 49.60 per cent., equal to muriate of morphia 52.63 per cent." Each powder supplied by the druggist—fifteen grains—contained, therefore, a most deadly dose of a narcotic poison. Every effort ought to be made to discover when, where, and how this fatal admixture of the two drugs occurred; though, as the case in question happened early in January last, this may be very difficult, if not impossible.

#### THE METROPOLITAN WATER-SUPPLY FOR JUNE LAST.

THE report of the Metropolitan Water Examiners for the month of June last has again to be pronounced satisfactory. Treating of the water previous to filtration, Colonel Bolton says the state of the river Thames at Hampton, Molesey, and Sunbury, where the intakes of most of the companies are situated, was good during the whole of the month, with the exception of the 23rd and 24th, when it was bad. According to Dr. Frankland's report, the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was again unusually free from organic matter. With the exception of that supplied by the Grand Junction Company, which was very slightly turbid, all the water was efficiently filtered before delivery. The water drawn from the Lea and distributed by the New River and East London Companies was also exceptionally free from organic impurity, the New River Company's supply being, chemically, but slightly inferior to the best of the deep-well waters. It has to be noticed that the authorities at the Local Government Board do not appear to act upon Colonel Bolton's suggestions: month after month that gentleman proposes that the question of a practical standard of quality (including both the organic and inorganic matter contained in water) should be considered and determined, so that the engineers connected with the companies should be made to work up to it; but the periodical reports do not show that any steps have been, or are being, taken in the matter.

#### FATAL FIRE IN A PRIVATE LUNATIC ASYLUM.

A DISASTROUS fire broke out about two o'clock on Tuesday morning, at Southall Park, a private lunatic asylum occupied by Dr. R. Boyd, formerly Resident Physician at St. Marylebone Infirmary, and afterwards Superintendent and Physician of the Somerset and Bath Lunatic Asylum. The number of his private patients in the house at Southall Park averaged from twenty to thirty. The fire was discovered by a female attendant, and the alarm given shortly after 2 a.m.; and, though assistance quickly arrived, great difficulty was found in obtaining water, the nearest supply being from a shallow pool at a considerable distance from the house. Everything possible in the circumstances seems to have been done to rescue the patients and other inmates; but two of the patients, Captain Williams and Mrs. Cullimore, are missing; and it is also reported that Dr. Boyd, his son (Mr. William Boyd, who was on a visit to his father), and one of the servants have perished in the flames; and Miss B. Boyd (a daughter of Dr. Boyd), Mr. R. K. Boyd (another son), and some servants received more or less severe injuries. It is said that Dr. Boyd had escaped from the house, but returned to it to aid in saving others, and was buried—with his son, the patients named above,

and the cook of the establishment—under the mass of ruins of the building. Every effort is being made to search the still smoking and heated piles of *débris*, but at present no human remains have been found. The cause of this deplorable catastrophe will be investigated as fully as possible; but one or two questions that present themselves demand immediate attention. How came it that this licensed asylum was allowed to be carried on for years in circumstances, as regards water-supply, that made a fatal disaster inevitable in the event of fire? What precautions against, and provisions for prompt and efficient action in case of, fire are required before the Commissioners of Lunacy will license an asylum? and what amount of supervision do they exercise over these matters in existing asylums? We have understood that the Commissioners have been inquiring into, or considering, these subjects a good deal during the last year or two: we should like to know with what result, if any; and what their opinion was with respect to the possible supply of water in case of a fire at Southall Park.

#### TYPHUS IN THE ISLAND OF SKYE.

THERE can be no question that there has been a severe outbreak of typhus fever in the Island of Skye. In answer to a question from Dr. Cameron on Tuesday last, the Lord Advocate for Scotland stated that there had been five-and-twenty cases of typhus in the island in about five months, and three cases had proved fatal. He added that the nature of the fever was not at first fully recognised. We are sorry to hear that a medical man who had been attending the cases had caught the fever, and at the date of the last report was lying dangerously ill. It did not appear from the Lord Advocate's statement that any special steps were being taken to isolate the fever cases, or indeed in any way, medically or otherwise, to provide due care for the sick, or to prevent the spread of infection.

#### HEALTH OF GLASGOW.

DURING the fortnight ending August 4 there were 453 deaths registered in place of 480 for the preceding fortnight (a decrease of 27), representing a death-rate of 23.2 in place of 24.4 per 1000 living. The death-rate in the first week of the fortnight was 21.6, and in the second 24.8. The number of deaths below one year was 108 in place of 120, and of persons aged sixty years and upwards 74 instead of 58. There were 38 deaths from diarrhoea in place of 27 and 9 during the preceding two fortnights. This number is less than is usual at this season of the year, and wholly confined to children. The number of deaths from fever was 4 instead of 3, viz., 3 from typhus and 1 from enteric fevers. There were 53 deaths from infectious diseases of children instead of 67, viz., 24 from whooping-cough, 15 from measles, and 14 from scarlet fever; and since the spring of the year this has been the lowest number of deaths from measles. The number of cases of fever registered was 49 instead of 17, viz., 29 of typhus fever and 20 of enteric fever, the increase of the former being most unusual at this season of the year. For many years there had not been so many cases in one fortnight—not even in mid-winter. The majority of them came from the southern districts. Overcrowding and personal dirt seem to be the chief factors in almost every instance, and, as the health officer suggests, the accession of tramps during the Fair Holidays. It looks most ominous for the winter, especially when it is remembered that typhus has been epidemic in Liverpool for some months, and still continues active. The reception-house has been insufficient for receiving all the infected families into quarantine; it contains only thirty beds, and there are at present thirty-five inmates, and many



more who wished to go could not be received. It has been suggested that another reception-house should be erected on the south side of the river, as at present the sanitary authorities are seriously hampered in dealing efficiently with typhus fever.

#### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the meeting of the Council of the Royal College of Surgeons, held on the 9th inst., Mr. J. Whitaker Hulke, F.R.S., was elected a member of the Board of Examiners in Dental Surgery, in the place rendered vacant by the retirement of Mr. Timothy Holmes. Mr. Erichsen's motion—"That it be referred to the Committee on the mode of voting for election to the Council to consider generally the charters and by-laws of the College, and to report to the Council whether in their opinion it is desirable that any, and if so, what, alterations should be made therein,"—was carried unanimously. The Council also resolved—"That the Council gives notice to the several medical authorities in England of its withdrawal from the scheme for an Examining Board for England, dated May 1, 1877, which Scheme, although agreed to by those authorities and approved and sanctioned by the General Medical Council, has never come into operation"; further—"That notice of this withdrawal be also communicated to the General Medical Council." And resolved—"That, without waiting for the confirmation of these Minutes, the President and Vice-Presidents be authorised to give effect to the foregoing resolutions." From the annual report of the receipts and expenditure of the College laid before the Council at the meeting it appears that the former amounted to £19,374 19s. 2d., derived principally in fees paid by students on their examinations for membership and fellowship of the College, viz., £16,249 2s.; rents from chambers adjoining the College, £1524 8s.; dividends and stock, £1124 5s. 2d.; fees paid on admission to the fellowship, Council, and Court of Examiners, £115 10s.; receipts from trust funds, £345 17s. 6d. The total expenditure amounted to £19,446 8s. 5d., the largest item being in fees paid to members of Council, Court, and Boards of Examiners, viz., £7374 19s. 6d. Salaries and wages for the large staff of officers and servants for the three departments of the office, museum, and library, absorbed £3849 18s. 5d. Stamps, taxes, and rates (exclusive of postage), £1427 16s. 6d.; alterations, repairs, and painting, £2142 11s.; miscellaneous items, £433 14s. 2d. On the right side appears the respectable balance at the bankers of £2087 10s. 4d. The report is signed by Mr. J. Whitaker Hulke as Chairman of the Committee of Auditors.

#### PAGET'S DISEASE OF THE NIPPLE.

HITHERTO the recognition of a peculiar "eczematous" condition of the nipple as premonitory of cancer of the breast has been almost confined to observers in our own country, and it is satisfactory, therefore, to note that Dr. Louis A. Dühring agrees that it is not an eczema, but a rare and peculiar disease with a malignant tendency. He thinks it a disease entitled to special consideration, and says it must be distinguished from eczema, which it resembles, and from ordinary cancer, which it is altogether unlike in its early stages. The disease is essentially chronic, as is well shown in the two cases which he reports (*American Journal of Medical Science*, July), where the progress of the disease was not only slow but insidious, no suspicion of malignancy arising until after the lapse of ten years in the one case and five in the other. The points in which the disease in these two patients differed from eczema seem to have been the following:—Itching did not become a prominent symptom until after the lapse of some years; it

usually appears early in eczema. The circumscribed sharply defined outline of the lesion, its slightly elevated border, and brilliant colour, are all points which distinguish it from true eczema. The absence of the eczematous surface, characterised by an appreciable discharge, or by vesicles, pustules, or puncta, coming and going from time to time, and the absence of exacerbations, so usual in eczema, may also be noted as of service in the differential diagnosis. We have little doubt that in years to come this disease will be much more frequent, or rather will be found much more frequently, than it is now. It is just one of those diseases which is not observed until it is looked for, and can only be recognised by those who pay careful and minute attention to these cases of affections of the nipple. The importance from the point of view of the patient of recognising at an early date the real nature of the disease in a case of this class is so obvious that it would be superfluous to dwell upon it.

THE "Bradshawe Lecture" of the Royal College of Physicians will be delivered at the above College to-morrow (Saturday, the 18th inst.), at four o'clock, by Dr. J. Wickham Legg, who has chosen for his subject "Cardiac Aneurysms."

It is stated that the Departmental Committee appointed by the Home Secretary to inquire and report as to the duties of the office of Public Prosecutor have adjourned the remainder of the investigation until November.

DR. LITTLE, Medical Officer of Health, Whitechapel District, has sent in his resignation. He feels that, in consequence of his advanced age (being within five weeks of seventy-eight years), he is not physically able to give such attention to the welfare of the district as it really demands. The letter was referred to the Committee of Works.

WE understand that Sir T. Spencer Wells has been elected an Honorary Fellow of the Physical and Medical Society of Erlangen.

At a meeting of the Court of Governors of St. Bartholomew's Hospital on the 14th inst., Dr. Dyce Duckworth was elected Physician, in place of Dr. Southey, resigned. At the same time the post of Assistant-Physician was declared vacant. Applications for the appointment are to be sent to the Clerk of the Hospital by September 11, and the election will take place on September 27 prox.

THE Library and Museum of the Royal College of Surgeons will be closed on Friday, the 31st inst., for the annual cleaning and re-arrangement of their respective contents, and will be re-opened on Monday, October 1.

JEQUIRITY IN GRANULAR OPHTHALMIA.—The qualification of the loud praises which usually attend the introduction of new remedies is beginning to appear in relation to the treatment of granular ophthalmia by jequirity. Dr. Deneffe, of Ghent, where the disease has long been one of the troubles of the surgical clinics, in a paper read at the Brussels Academy of Medicine (*Journal de Thérapeutique*, July 25) states that after having made several trials of it he has to report that any efficacy it possesses is fugitive, and that it is not to be compared with inoculation of gonorrhoeal discharge in its power of exciting a curative purulent ophthalmia. Dr. Terrier also, in a communication to the Paris Société de Chirurgie, states that, after the inflammation produced by the jequirity has subsided, the granulations remain in much the same condition as they were prior to its application.



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, AUGUST 9.

*Education and Lunacy.*—Mr. Leighton asked the Vice-President of the Council whether he had seen that in the last report of the Lunacy Commissioners it was stated that, while the number of pauper children had decreased since the passing of the Education Act from 393,000 in 1871 to 270,000 in 1882, the number of pauper lunatic children had increased from 962 to 1332, and that the proportion of pauper lunatic children to pauper children had during the same period arisen from .24 to .29 per cent.; and whether he would cause special inquiry to be made by Her Majesty's School Inspectors during the ensuing year on the subject of over-pressure in the elementary schools of the country. In reply, Mr. Mundella said that the figures quoted in the question were accurate; but they had no relation to each other, or to the Education Act of 1870. It was true that there was an increase of 369 pauper children of defective intellect in the eleven years 1871 to 1882; but these were a permanent and growing charge on the community, whereas the larger figures quoted, representing children in receipt of relief, were fluctuating, and since 1863 had, with occasional variations, been steadily declining. The increase in the number of pauper children of defective intellect was due to the increase of population, to the advantages of better treatment in idiot asylums and licensed houses, and to the fact that a Government grant had been made in 1875 towards the maintenance of this class in asylums. These children are rarely insane, but generally are idiots or imbeciles from birth. He had already made inquiry of several of the senior inspectors of schools as to the alleged over-pressure, and he should continue to watch very carefully the effect of the recent Code in this respect.

*Irish Police-Surgeons.*—Mr. Trevelyan, in reply to questions put by Dr. Lyons and Mr. Leamy, said the appointment of surgeons to the Irish Constabulary rested with the Inspector-General of the force, and in making the recent appointment at Waterford that officer believed he had secured for the constabulary the best available medical advice. The gentleman appointed was medical officer to the Fever Hospital, where the constabulary are treated. There was a departmental rule that dispensary surgeons should have preference for constabulary appointments; but exceptions to the rule were sometimes made. He hoped to inquire into the matter, and should be glad to know the general view on the subject.

*Thames Water.*—Mr. Firth put a long question to the President of the Local Government Board with regard to the quality of the river-water supply to the metropolis, quoting from Dr. Frankland's reports, and calling attention especially to Dr. Frankland's statement in 1881, that "the water, both of the Thames and the Lea, is becoming year by year less suitable for domestic use. There is no protection against noxious organic matter in polluted river-water, even when efficiently filtered;" and his statement in 1882: "The Inner Circle of London was supplied, as usual, by eight companies with water, the daily average volume of which was 149,190,193 gallons, an increase of nearly seven million gallons on the previous year. Of this 74,311,816 gallons were at times largely polluted with organic matters; 65,999,067 gallons were occasionally so polluted, but to a less degree; while only 8,879,310 gallons were of uniformly good quality for drinking."—Sir C. Dilke, after observing that the statements referred to applied to the years 1880 and 1881, said that Dr. Frankland's general report for 1882 was qualified by the statement, "The comparative freedom from excessive organic pollution which has been observed in the Thames water since the year 1875 is probably due to the increased storage space acquired by the companies drawing from this source. In consequence of this increased storage capacity, it is no longer necessary to impound the worst flood waters." And he quoted from Dr. Frankland's reports for April and May in the present year, showing that the Thames water and the water from the river Lea, as delivered by the companies, had been in "an efficiently filtered condition," and "for river-water unusually free from organic matter," while the water delivered by the New River Company was still purer.

FRIDAY, AUGUST 10.

*London Water.*—Mr. Torrens asked the President of the Local Government Board whether the rate of mortality in the ten cities and boroughs of the metropolis was not much less than in several of the large provincial towns of the United Kingdom, whose supply of water was drawn wholly or in part from other than riverine sources, and the sale of which to consumers was altogether in the hands of the municipal corporations.—Sir C. Dilke said he believed that, taking the towns in the United Kingdom with a population above 100,000, and excluding those whose supply of water is furnished by companies, or where the supply is wholly or partly from rivers, there were nine towns where, according to the last published quarterly return of the Registrar-General, the rate was higher than in London, and four where it was lower.

HOUSE OF LORDS—MONDAY, AUGUST 13.

*Diseases Prevention (Metropolis) Bill.*—Lord Carrington, in moving the second reading of this Bill, observed that there had been some difficulty in putting in force the Diseases Prevention Act of 1855 in the metropolis, on account of the number of vestries; and the present Bill proposed to deal with that difficulty by falling back on the Managers of the Metropolitan Asylums District. The introduction of the Bill had been considered absolutely necessary for the safety of the metropolis in the event of a cholera epidemic; and in order to avoid, if possible, any opposition to the Bill, it was proposed to limit its duration to September 1, 1884. The deputation of the Managers of the Metropolitan Asylums District had met the President of the Local Government Board on Thursday last, and had expressed themselves as willing to do all in their power. They would constitute themselves the first line of defence, and trusted to work in harmony with the vestries and the Board of Works.—The Marquis of Salisbury thought it was very right to grant special powers to deal with the cholera; but scarcely necessary to include other infectious diseases within the scope of the Bill; but he did not oppose the second reading of it. The Bill was then read a second time.

*The Trial of Lunatics Bill* was read a third time and passed.

HOUSE OF COMMONS—MONDAY, AUGUST 13.

*The Medical Acts Amendment Bill.*—In reply to Sir Lyon Playfair, Mr. Gladstone said: Owing to the important interests involved in this Bill, we are most anxious to take the discussion and obtain the judgment of the House upon it on the earliest day we can, but the progress made with certain other Bills is not sufficient to allow me to name a day at the present. I hope in the course of three or four days to be able to do so.

HOUSE OF LORDS—TUESDAY, AUGUST 14.

*The Diseases Prevention (Metropolis) Bill* passed through Committee.

HOUSE OF COMMONS—TUESDAY, AUGUST 14.

*Employment for Irish Lunatics.*—In reply to Mr. Healy, Mr. Trevelyan said it had been the practice for some years past to allow patients in the Down Asylum to be occasionally employed in harvest work on farms adjoining the Asylum. They got no remuneration beyond food and refreshments. The patients looked upon this work as a favour and recreation, and it was approved of by both the inspectors of lunatics and of the resident medical superintendent. Full employment of the same kind was being provided for on land lately acquired by the Asylum.

*The Army Hospital Services.*—Replying to Mr. Dawnay, Lord Hartington said he proposed, as soon as possible after the end of the session, to examine carefully all the recommendations of Lord Morley's Committee, and to consider how far they shall be adopted and given effect to in next year's estimates. With regard to the recommended change in the position of the medical officer with the Household Troops, he could not undertake that no steps should be taken towards its adoption until the matter had been before the House, because the Government must take the responsibility of deciding such a matter. The House might discuss it fully next year when the Army Estimates came before them.

*Army Vaccination.*—Mr. Biggar asked the Secretary of State for War whether it had come to his knowledge that sixty-eight recruits were vaccinated at Dortrecht, in Holland,



on May 25 last, of whom eight were found to be seriously injured, three having subsequently died; whether the fact of those injuries and fatalities was subsequently brought to the attention of the Netherlands Parliament, and a circular issued by M. Weitzel, the Minister for War, notifying recruits that vaccination was not to be considered obligatory, but optional; and whether some such alteration would be made in our military regulations.—Lord Hartington replied that the War Office knew nothing about the occurrences mentioned, but he would make inquiry through the Foreign Office. There was no intention of abolishing or modifying the system of vaccinating or re-vaccinating recruits, which had acted most successfully in protecting soldiers from small-pox, and against which recruits had, so far as was known, offered no objection.

WEDNESDAY, AUGUST 15.

*Importation of Disease by Rags.*—Sir Stafford Northcote asked the President of the Local Government Board whether his attention had been called to some cases of small-pox reported from a place in his constituency, which were supposed to have originated from foreign rags employed in certain paper-mills.—Sir C. Dilke said the matter was under consideration, and, in case of there being any strong probability of the alleged facts being true, an inquiry would be held to see the exact bearing of those facts. The orders of the Local Government Board at present had reference to Egypt only. There was no authentic case of cholera being imported by rags, but there had been one case of such importation of small-pox.

## FROM ABROAD.

### ECTOPIA OF THE HEART.

PROF. TARNIER, at the meeting of the Académie de Médecine of July 31, introduced to its notice a highly interesting case of ectopia of the heart. The subject of it is a woman at the end of her pregnancy with her second child, no inconvenience having attended her first delivery. The sternum is bifid at its lower portion, so that the heart lies just below the skin. The ventricles can be taken hold of by the hand, but in order to feel the pulsation of the auricles the fingers must be passed into the upper part of the sternal cleft. The patient is also the subject of an umbilical hernia, and the displaced heart seems to have some immediate relations with this hernia. It would be difficult to appreciate the exact relations of the displaced organ. Is the pericardium intact? Is the heart free in the abdominal cavity? It is absolutely impossible to pronounce an opinion on this point. All that can be affirmed is, that the diaphragm is perforated, and that it is through this perforation the heart has passed, and become placed under the skin, accompanied or not with its proper serous membrane. After the woman has been delivered at the Maternité, where she is at present, the phenomena will be investigated by MM. Marey and Franck.

Prof. Marey stated that he and M. Franck had already taken some tracings. "This is," he observed, "one of the most interesting of cases, for it will allow, I have no doubt, of our verifying on the human subject the results obtained by experiments made on the heart in animals, such as the synchronism of the ventricles, etc. In this way, and without insisting at present more on the subject, the exploration of the heart of this woman will allow of our exhibiting the illusion which has given rise to the theory of Beau for the explanation of the pulsations of the heart. Beau explained the beating of the heart by cardiac dilatation under the influence of the afflux of blood at the moment of the ventricular diastole. This opinion appeared logical, for it is rational to admit that the impulse is produced at the instant when the organ increases in volume, and not when it contracts upon itself. But this explanation, however logical it may appear, is not the true one, and if any doubt exists about it an examination of this patient must carry conviction. If, in place of looking at her heart, we seize hold of it with the fingers, we prove in the most distinct manner that it is not when the heart is largest that the impulse is produced, but really when it is hardest. If the Academy will appoint

a committee in order to examine this woman in relation to cardiac physiology, and it does me the honour of placing me on it, we shall be able after her delivery to undertake a series of researches for the elucidation of these various points. Cases of this kind are, in fact, extremely rare in the adult, and I have only been informed of one which existed at Ribeauvillers, in Alsace." A committee, consisting of Professors Vulpian, Sappey, and Marey, was appointed.

### THE CEPHALALGIA OF ADOLESCENCE.

The *Gazette des Hopitaux* of May 19 notices a recent publication of Dr. René Blache, under the title of *Céphalalgie de Croissance*. This, of course, is no new condition, for most practitioners must have met with examples of it more or less frequently, and have generally given it only the significance of a mere symptom. But for Dr. Blache it constitutes in some cases a definite morbid condition—a special disease of adolescence. It is a persistent cephalalgia, accompanied by various disturbances of the nervous and circulatory systems, more or less fleeting giddiness, and sometimes attempts at vomiting. These may return daily for months, not at the same time of day, but at any time that the patient undertakes intellectual labour of any continuity requiring a certain amount of attention. It has been generally in subjects from ten to eighteen years of age that Dr. Blache has met with this form of cephalalgia, which occurs alike in young boys and girls, but most frequently in the former. The seat of the pain is usually confined to the forehead, but sometimes it corresponds to the whole hairy scalp, from the vertex to a circular line passing on a level with the orbits and mastoid process. The pain is never unilateral, as in true migraine. At the same time a change of disposition takes place, the subject becoming nervous and irritable; but the inaptitude for work is the most constant and uniform symptom. The practitioner in such a case may find himself in a somewhat delicate position; for while, on the one hand, he may have to suspect a simulated affection all the symptoms of which are subjective, he may, on the other, have to do with only a too real affection. Great attention to the case, a strict surveillance of the young persons who complain of the pains, the persistence of these and their resistance to the usual remedies, will in the end lead to a conviction of the reality of the affection. Its duration is not of a few days only, or even for some weeks, but for months and even years, so that simulation would be difficult indeed. The inaptitude for intellectual labour, so far from being made a pretext for idleness and amusement, often becomes with these young persons a subject of poignant regret. Besides these cases of cephalalgia, which are temporarily produced under the influence of efforts at intellectual work which surpass the strength of the scholar, and which may be regarded as the benign and usual form of the affection, Dr. Blache refers to other cases, in which the cephalalgia is constant, and undergoes exacerbation whenever mental exertion is attempted. Cases of this kind seem to be especially connected with diasthetic heredity; and among the cases reported are those of young persons the issue of arthritic or neuropathic parents. Dr. Maurice Perrin, consulted in some of these cases, has offered the opinion that most of the subjects of this cephalalgia suffered from hypermetropia or astigmatism, and that these pains were especially, if not exclusively, attributable to the attempts at accommodation of the eye. But Dr. Blache, while admitting the possible concurrence of these disturbances of vision, has met with cases in which the employment of appropriate glasses exerted no beneficial effect, the cephalalgia being quite independent of the condition of the eyes. Active life in the open air, the use of appropriate glasses when visual trouble exists, and above all the absolute cessation of intellectual labour for a prolonged period, have proved, together with hydrotherapia, the sole means which have given any relief, and sometimes have caused the disappearance of the pains, which are often so severe as to render existence miserable.

**ADULTERATION OF LARD.**—It is openly admitted by the lard dealers of Chicago that all lard is adulterated from 10 to 50 per cent. In all but the worst grades the adulteration is harmless, being oleo-margarine, cottonseed oil, vegetable oils, and tallow.—*New York Med. Record*, July 14.



## THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

By Professor W. H. CORFIELD, M.A., M.D.

THE following is an abstract of a paper read by Professor Corfield, at the meeting of the Sanitary Institute of Great Britain, on July 24. The Professor said that the facts which he proposed to lay before his audience had been chiefly obtained from replies to a set of questions which he had sent to the medical officers of health of the various towns where regulations for the compulsory notification of infectious disease were in force. After giving statistics and opinions of the medical officers of health as to the satisfactory working of the regulations in the eighteen towns from which he had received returns, the author said:—

From the facts that I have laid before you, I have been forced to the conclusion that the compulsory notification of "infectious diseases" is a very important sanitary measure, and a great boon to the community to whom it has been applied. There can be no doubt whatever that, in a vast number of cases, information has been obtained of the existence of infectious disease, which, but for compulsion, would never have been obtained at all, or, if obtained, would have come too late to be of much service.

Everyone who has had anything to do with the prevention of epidemic diseases, knows that the most important thing of all is to get the earliest information of the cases that arise; and that an epidemic may be checked and stamped out with comparative ease if it is taken in hand early enough, but that the difficulty increases every day that is lost. The objection that cases of concealment are likely or even certain to occur where such Acts are in force, has been completely met by the quotations that I have made to you; but, to my mind, this objection, of which so much has been made, is so childish as to be almost ludicrous. If there are cases of concealment every day where such an Act is in force, there are many times as many such cases where no Act is in force. One would have thought that it must have been obvious to everyone, that in the towns where a hundred cases are reported under the Act, while only ten were reported during the same time before the Act was passed, at any rate there were ninety cases reported under the Act which would have been concealed without it. With regard to the vexed question as to whether the medical attendant or the householder, or both, should be compelled to notify the existence of cases of these diseases to the sanitary authority, the most general practice appears to be to make it compulsory upon both; but the evidence, as I understand it, shows that at any rate medical men should be required to give the information; and also that they should be required to give it direct to the sanitary authority, rather than to the householder. This is a matter upon which I do not wish to insist strongly, but simply to give the impression that the results of the inquiries have left upon my mind. I think that the evidence is very strong that in most places, at any rate, little or no difficulty has arisen from the medical men being compelled to give this information. As to the suggestion that these Acts, so far from diminishing the number of cases of infectious diseases, are likely to increase them, I would ask you, Do you think it likely that, without any exception, the medical officers of health of the towns where these Acts are in force would support them strongly if they thought the number of cases of infectious diseases was going to be increased by them? The business of the medical officer of health is to prevent disease—especially such diseases as these,—and he gains credit by doing this, and not by increasing them. Do you suppose that these medical officers of health do not know their own business? or do you suppose that they have combined together to do that which must certainly bring discredit upon themselves? I ask you, on the contrary, to believe that the medical officers of health of these towns know the way to prevent infectious diseases from spreading, and are doing their utmost to lead the medical profession and the public generally up to the point of seeing the great need for the passing of such an Act as those which have been so beneficial where they have been applied for the whole kingdom. And I take this opportunity

of thanking all those gentlemen for the trouble they have taken in answering the questions sent to them, and so enabling us to epitomise the evidence on the subject.

## SANITARY CONDITION OF THE BOROUGH OF PORTSMOUTH IN 1882.

At the outset of his elaborate Report to the Urban Sanitary Authority of the Borough of Portsmouth for the year 1882, Dr. Sykes, Medical Officer of Health, points out the objections to estimating the population of Portsmouth by the usual processes, and he details the plan he adopted in order to obtain an approximately truthful estimate of the civil population of the borough in the middle of the year. He says: "In order to accomplish this object I have excluded the convict prison, and nearly the whole of the military population, as well as nearly the whole of the population afloat; I say nearly, because a certain number of soldiers and sailors settle here after having served their time, and become a portion of the civil population. As these spend the latter portion of their lives here, during which the rate of mortality is great, it is obviously fair to include as belonging to us those who in course of time will settle down here. I have therefore assumed that a number equal to those now living in the borough, and actually in the receipt of pensions, belong to us, though they are now in active service; and as these will after service settle down in all portions of the borough, I have distributed them over its several sub-divisions in proportion to the population of each." The total number of births in the borough for the year was 4506, 2289 being male and 2217 female, the birth-rate being slightly higher than the average one for the previous ten years. The deaths were 2778, which gives a higher death-rate than the average of the previous ten years. The borough is divided into five sub-districts or sub-divisions, viz., Portsmouth, Portsea, Kingston, Landport, and Southsea; and, as might be expected, the death-rate is by no means the same in all. There has been no small-pox during the year. A severe epidemic of measles commenced in the middle of February, and lasted until the end of June, causing no less than 156 deaths. As soon as it was brought to their notice the Urban Sanitary Authority printed some "Suggestions for the Prevention of the Spread of Measles," and distributed them throughout the borough; they contain plain, sound advice regarding the separation of the sick, the ventilation of the sick-room, disinfection of clothes, attendance of children at school, etc., and conclude with an offer to give disinfectants gratuitously on personal application at the offices. Dr. Sykes says that an epidemic of measles was due that year, as the last one was in 1876, and it seems to recur every five or six years. For the same reason he is expecting an epidemic of scarlet fever, which had caused forty deaths during the year—a greater number than in any year since the previous outbreak in 1876. Diphtheria caused 106 deaths, there having been a serious epidemic of it during the latter part of 1881, which was at its height at the commencement of the year. Dr. Sykes, in his report for the previous year, expressed the opinion that the epidemic was spread in the first instance by direct infection, and later by emanations from the sewers, which became highly charged with the poisonous germs of diphtheria, and he now says, "I have not yet met with any new facts to alter the opinion I then formed upon the matter, and the recent discovery of the scandalous manner in which the cleansing of the sewers had been neglected, only shows what a suitable nidus they were for the multiplication and growth of the germs of diphtheria." Enteric fever is credited with eighty-six deaths, and simple continued fever with ten, during the year. Dr. Sykes adopts Pettenkofer's views of the part played by the variations in the level of the ground-water in the causation of typhoid fever, and he points out that their soil is a light, porous, gravelly one, which has for years been organically polluted by cesspits, and that the influence of the tides and rainfall must be causing constant changes in the level of the ground-water. In order to obviate this pollution of the soil as far as possible, a careful watch should be kept upon the public sewers to prevent leakage; as many open spaces as



possible should be kept unbuilt upon, to allow free diffusion of the atmosphere with the ground-air, that the organic impurities of the soil may be oxidised and rendered harmless; and, lastly, the basement of every house should be laid with an impervious coating of concrete so as to absolutely prevent the entrance of the ground-air. A thorough inspection of the public sewers during the year led to the discovery that they were in a disgraceful state from neglect to keep them free from deposit, and the Report points out that 700 additional ventilators are required to make the number one for every hundred yards of sewer. In regard to house-drainage, many houses have been supplied with efficient ventilation shafts, and some few with an intercepting arrangement as well; and some new by-laws are shortly to be enforced, providing for both these improvements in all new buildings subsequently erected. In conclusion, Dr. Sykes makes an earnest appeal for the carrying out of sanitary reforms with more vigour if Portsmouth is ever to take its proper position as one of the healthiest towns in England. A word of praise is due to Dr. Sykes for the great pains he has bestowed on the map of the district, in which the houses where cases of diphtheria, scarlet fever, or enteric fever, have occurred, as well as those where fatal cases of measles have taken place, are designated by distinctive marks.

## REVIEWS AND NOTICES OF BOOKS.

*Practical Treatise on the Diseases of the Uterus, Ovaries, and Fallopian Tubes.* By A. COURTY, Professor of Clinical Surgery, Montpellier. Translated from the Third Edition by his Pupil, AGNES McLAREN, M.D., M.K.Q.C.P.I.; with Preface by J. MATTHEWS DUNCAN, M.D., LL.D., F.R.S.E., Obstetric Physician to St. Bartholomew's Hospital. London: J. and A. Churchill. 1882. Pp. 810.

THE position and reputation of Professor Courty will cause this book to be widely read. It is possible also that some may be induced to study it by seeing that it is introduced by a preface from the pen of Dr. Matthews Duncan—a fact which it would not be unreasonable to take as indicating that that distinguished physician in the main approved its tendency and teaching. Anyone who should for that reason get the book will find a surprise in store for him: for the teaching of Courty is as opposite to that of Duncan as, treating of the same subject, and going over the same ground-work of admitted fact, it can well be. We note that the preface, while laudatory of the author and of the translator, has nothing better to say of the book than that it is important, and a recognised exponent of French doctrine, and on these grounds to be recommended for careful study.

Coming to the book itself, we find that the first ninety pages describe the anatomy, physiology, and teratology of the female generative organs. This part, like most French works on allied subjects, is full and clear. Then we have 150 pages devoted to “a general survey of uterine diseases.” The impression which this part of the work is likely to produce on the mind of the learner is, we think, an undesirable one. Professor Courty seems to be among those who hold that any symptom may be produced as a reflex effect of slight uterine change: disorders of the uterus of the most trivial kind, possibly not causing any observed disturbance of function or local uneasiness, may yet manifest themselves by symptoms connected with some distant part. From this doctrine the practical corollary follows: when a woman complains of any symptom of which the causation is obscure, examine the uterus, no matter whether there are any complaints directly referable to it or not, and treat any condition, however apparently unimportant, which in the slightest degree is not normal. That no one may think that we exaggerate, we quote the following “presumptive signs indicating uterine disease”: gastralgia, nausea, dyspepsia, anorexia, perverted appetite, oesophageal constriction, globus hystericus, enlargement of liver and gall-bladder, palpitation, visceral and other neuralgias, hysteria, local anæsthesia, hyperæsthesia, spasms, cough, paralysis, anæmia, emaciation, corpulency. Of course, it cannot be denied that uterine disease of a serious kind may sometimes indirectly, or along with other conditions, produce these complaints. To show Pro-

fessor Courty's teaching as to the slightness of the local maladies which are capable of causing all these troubles, we will further quote—“The most insignificant functional disorder is sufficient to disturb the whole economy. It is very striking to observe the disproportionate magnitude of this general disturbance compared to the insignificance of the change which has produced it.”—(Page 99.) “Predominance of general symptoms may be so marked as completely to efface all local phenomena.”—(Page 24.) Looking at this, as it ought to be looked at, from the point of view of the general physician, we have no hesitation in expressing our own belief that insignificant functional disorders of the uterus are far more commonly the result of disturbance of the whole economy from some other cause than the causes of such disturbance. We think that Professor Courty's teaching on this point tends to favour unnecessary, and therefore injurious, local treatment of the genital organs. We find further (page 151) a statement that “experience teaches us that diseases of the womb have no tendency to spontaneous cure.” We are quite sure that many will get well with very simple treatment, and fear that there are only too many which are maintained simply by local treatment, and get well when local treatment is left off. The whole of this section of the work is characterised, as it seems to us, by a magnifying of subjective symptoms, of trifling local alterations, and of unimportant details of treatment. As an example of the latter, we read (page 167)—“The patient should lie horizontally, the pelvis on a level with the shoulders or higher, the head resting on a pillow, the legs and thighs flexed and supported by pillows under the thighs; in short, the muscles relaxed by semiflexion.” Is there any evidence that it matters one iota, in chronic uterine disease, whether the patient in bed lies with her legs bent or straight? The pathological part of this section seems to us more likely to retard than to hasten the attainment of exact knowledge concerning uterine maladies. It is characterised by an abundant use of vague hypothetical terms, expressing generalisations of the widest scope, but which are neither defined nor proved, and therefore neither convey information nor are capable of refutation. As an example, take the following sentence:—“Engorgement, or the presence of interstitial plasma, which is something between œdema, congestion, and hypertrophy, naturally indicates the use of resolvents.”

The chapters in which uterine diseases are considered in detail are far better than the first part of the work would have led us to expect. They are very full and clear, and make the work a very valuable one. As instances of the great divergence between the author of the book and the writer of the preface, we may mention that 116 pages are devoted to describing the changes in position of the uterus, thirty-two of them being taken up exclusively with flexions. We regret that the space which we have been obliged to occupy in explaining our dissent from the teaching of the earlier part of the work precludes us from the more grateful task of particular comment on the parts which seem to us especially good. We would say, briefly, that the only adverse criticisms which we should make upon the latter chapters are the same as those which we have made upon the earlier, viz., that the author seems to us to make too much of trivial local changes, and to ignore the fact that uterine symptoms will often disappear when the patient's general health is improved, without any local treatment. The merit of the book—and it has great merit—is in the admirable clearness with which practical details are described. The chief special feature in it is the elaborate distinction which is drawn between fluxion, congestion, inflammation, engorgement, œdema, hypertrophy, and subinvolution of the uterus. That the changes denoted by these terms take place we do not doubt. But the transition from one to the other is so gradual, they so often co-exist and are blended, that it must be quite exceptionally that, even with the scalpel and the microscope, the morbid condition can be with strict accuracy labelled with one alone of these terms. And in practice so few observers have had the opportunity of checking the clinical diagnosis of disease of the uterus by comparison with the results of post-mortem dissection, that we cannot but suspect that the elaborate table which Professor Courty gives of the differentiated symptoms, etc., of these different conditions is but a theoretical refinement—to borrow a term from Dr. Duncan, a “symptomatic castle-building.”



*Saint Bartholomew's Hospital Reports.* Edited by W. S. CHURCH, M.D., and JOHN LANGTON, F.R.C.S. Vol. XVIII. London: Smith, Elder, and Co. 1882. Pp. 574.

THE eighteenth volume of the *Saint Bartholomew's Hospital Reports* contains some interesting and valuable matter. It opens with a paper by Dr. Gee, on "Fitful or Recurrent Vomiting." He describes a disorder met with in children, beginning often very early in life, and consisting of attacks of vomiting, generally accompanied with abdominal pain, and sometimes with disorder of the bowels, recurring at uncertain intervals, sometimes without discoverable cause, sometimes provoked by fatigue, excitement, exposure to cold, or indigestible food. The treatment which Dr. Gee recommends is during the attack to limit the diet and give small doses of grey powder or calomel. By way of prevention he advises that upon the appearance of any premonitory symptom a mild laxative should be given. Dr. Wickham Legg contributes a "Note on the History of Exophthalmic Goitre." The main object of it is to throw light on the respective claims of Graves and Basedow to be considered as the founders of our knowledge of this disease. Dr. Wickham Legg is of opinion that the honour belongs to Dublin; and that Basedow, by attaching too much importance to the state of the eyes, rather retarded the attainment of a true comprehension of the malady. The department of orthopædic surgery is represented by papers by Mr. Walsham, on the treatment of deviation of the nasal septum by forcible straightening, accompanied with stellar division of the septal cartilage; by Mr. Howard Marsh, on rickets, knock-knee, flat-foot, and lateral curvature; and by Mr. Willet, on manipulation as a means of treatment of flat-foot, especially in the acute form. Mr. Marsh expresses a strong opinion, which he supports by illustrative cases and other arguments, that rickety curvatures of the long bones tend to disappear spontaneously in the process of growth, even without mechanical treatment. Sayre's plaster jacket, Mr. Marsh thinks, has been greatly overpraised. Cocking's poroplastic jacket he regards as in every way better, and gives good reasons for his preference. Dr. J. A. Ormerod contributes a set of clinical observations on the state of the larynx in phthisis; and Mr. Butlin, who is in charge of the throat department of the Hospital, reports some interesting cases of laryngeal disease. A monograph on imperforate rectum and anus in infants, by Mr. Harrison Cripps, gives in a succinct form what is at present known of this malformation and its treatment. Dr. Vincent Harris writes on the diagnostic value of cardiac murmurs; and incidentally calls attention to the large degree in which our knowledge of the natural and morbid cardiac sounds is derived from experiments on living animals. Dr. David A. King contributes a careful analysis of seventy cases of enteric fever. Dr. Laurence Humphry, the Resident Medical Officer of the Victoria-park Hospital, states the result of his investigations, made in that institution, into the presence of the so-called tubercle-bacillus. He is inclined to believe that there is "some kind of relation between the number of the bacilli and the stage or variety of the disease." We next come to a paper on the scoliotic pelvis, by Dr. Champneys—one of the series of contributions to the scientific study of pelvic deformity with which his name is so creditably associated. Mr. Langton gives the results of his exceptionally large experience of hernia of the ovary. Dr. Norman Moore reports some pathological observations on the pancreas. Mr. Walsham considers ably and fully the question, "Is trephining the skull a dangerous operation *per se*?" From an analysis of 686 cases, he concludes that the danger of trephining is over-estimated; that in many cases in which death has followed it the operation had nothing to do with the fatal issue; and that in itself trephining is attended with but slight risk. The percentage of deaths due to the operation he puts, from published cases, at  $10\frac{1}{2}$  per cent., and he thinks this may probably be much diminished by improvement and greater care in the mode of operation and after treatment. Several papers in the volume detail cases of especial interest, viz.:—One of lesion of the sympathetic nerve in the neck, by Drs. Gee and Abercrombie; two of hemiatrophia facialis, by Messrs. Jessop and Browne; three of removal by operation of cancer of the rectum, by Mr. Marrant Baker; a fatal case of perimetritis, by Mr. Walter S. A. Griffith; a case of intracranial aneurism, by Mr. Henry Smith; and some cases from Dr. Gee's wards, by Messrs. Oswald Browne

and D'Arcy Power. Dr. Samuel West writes briefly on the mutual relation of pain and hæmorrhage, pointing out how the latter frequently relieves the former. Drs. Lauder Brunton and Cash publish a chemical investigation on the influence of various alkaloids on processes of oxidation. Mr. W. A. Steavenson contributes some useful notes on tracheotomy, based on an experience of fifty-three cases. The point to which he calls particular attention is the difficulty often experienced by the patient in dispensing with the tube after the operation. He follows Mr. Parker in attaching great importance to diligent after-treatment, for the carrying out of which he advises relays of students or nurses. Dr. Norman Moore supplies a paper of much antiquarian interest on the physicians and surgeons of St. Bartholomew's Hospital before the time of Harvey. Dr. Duckworth writes on diabetes in relation to arthritism. He argues in favour of the existence of a gouty diabetes—a form which does not "present the ordinary aspect or recognised symptoms of diabetes as commonly understood." It occurs generally in male patients robust in appearance, in middle life, often with obesity. When under treatment the sugar disappears from the urine, gouty symptoms often supervene. The volume finally contains the proceedings of the Abernethian Society; an account by Mr. Bowlby of the specimens added to the Museum during the year; and statistical tables, drawn up by the Registrars, of the patients under treatment during the year.

*Brain*, No. XXII., July, 1883.

THE current number of *Brain* is exceptionally good, being quite remarkable for the number and excellence of the illustrations. Professor Westphal leads off with a masterly paper on Syringomyelia (Hydromyelia), which is illustrated by thirteen coloured lithographs of great beauty. He arrives at the conclusion that the cavity in the spinal cord is an unobliterated portion of the longitudinal groove which, in the embryo, divides the posterior half of the spinal cord into two; and that in the parietes of this groove, now become a cavity, a fibrous neoplasm becomes developed. Five very instructive cases of tumours in the neighbourhood of the valve of Vieussens are related by Dr. Bristowe, who introduces them with a few remarks that make us wish for more. Dr. Mercier contributes an admirably well-studied case of epilepsy, illustrated by instantaneous photographs taken during the progress of the convulsions. Professor Hamilton, of Aberdeen, brings forward a novel method of demonstrating the course of fibres in the brain. A thin section through the entire brain is placed between two thin layers of gelatine, which unite with one another around and through the section. The slice of brain thus prepared is dried, and in this condition can be handled, tied up in bundles, transmitted by post, and subjected to moderately rough treatment without harm. When it is to be examined it is soaked in water, in which it expands greatly. While still wet it is spread on glass, and, becoming adherent, dries so as to retain its enlarged area. It may again be taken from the plate, expanded by soaking, and the expansion rendered permanent by drying on glass; and this process may be repeated several times. Dr. Stephen Mackenzie relates a case of loss of both knee-jerks from one-sided brain disease, and advances a very ingenious hypothesis to account for this puzzling condition of things. A case of sawyer's cramp—a somewhat unusual "professional" malady—is recorded by Dr. Poore. The Clinical Cases are as important as usual, and more than usually numerous. They include one of cerebral tumour by Dr. A. Bruce, which again is illustrated by four excellent lithographs; a case of epileptiform migraine by Dr. Clifford Allbutt; two cases of tabes dorsalis with joint disease by Dr. Ormerod; and two cases of Ménière's disease by Dr. Alexander McAlldowie. We are glad to notice a great extension of the space devoted to Clinical Digests and Abstracts from Journals, a department that is much more completely worked out in this number than has been customary hitherto.

LUMBAGO may be quickly relieved by binding a piece of oil-skin cloth, such as is used to cover tables, over the loins outside the flannel shirt. Profuse perspiration is produced, which rapidly relieves the pain.—*Philadelphia Med. Reporter*, July 7.



## GENERAL CORRESPONDENCE.

## EGYPTIAN OPHTHALMIA IN ENGLAND.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your issue of August 11 I notice two allusions to Egyptian ophthalmia. Sir Galbraith Logan, in his address to the School at Netley, contrasts the effects of the disease under modern treatment with those which followed the treatment adopted in a former campaign under Sir Ralph Abercromby. Dr. Charles Creighton, in his address to the British Medical Association, also notices the great sufferings of our troops from ophthalmia in Abercromby's campaign. It is satisfactory to observe that the *treatment* of the disease has improved, but I think there is a lesson to be learned in both addresses with regard to its *prevention*. It seems possible that the ophthalmia, which can be managed in Egypt, may prove unmanageable if imported into England. Sir Galbraith Logan notices that the ophthalmia brought to England by Abercromby's troops "acquired such a pernicious character, and proved so infectious among the men who escaped from the extreme result of blindness, that, as regarded some of the regiments which served in that war, the disease was not eradicated from them for five-and-twenty years after." Dr. Creighton also alludes to the virulence of the disease after its importation into England, and remarks: "No one in those days thought that Egyptian ophthalmia was a specific infection. But some of the British soldiers returned with it uncured; and it soon became contagious in the home garrisons; and it was found after a lapse of eight or nine years that there were no fewer than 2317 soldiers pensioners upon the public bounty from blindness in consequence of ophthalmia. Those who knew the disease in Egypt denied that it was contagious, and those who saw it in England were as positive that it was contagious."

It seems possible that the two views may be reconciled, and that Egyptian ophthalmia *may* become dangerously contagious in the colder climates of Europe. Would it not be well to be warned in time, and to take care that no men suffering from ophthalmia are brought back to England until a perfect cure has been effected?

I am, &amp;c.,

"CAUTION."

[This subject was dealt with, and the necessity of precautions to avoid a reproduction of contagious ophthalmia among our soldiers in England, pointed out by us, in an article on "Egyptian Ophthalmia" last autumn.—See *Medical Times and Gazette*, vol. ii., page 247, 1882.]

## OBITUARY.

MRS. CHAPLIN AYRTON, M.D. PARIS, L.K.Q.C.P.I.

WE regret to record the death of Mrs. Chaplin Ayrton, M.D. This lady was born at Honfleur, of English parents, in 1846, and was one of the most able and gifted of the first Edinburgh class of women-students, forming one of the famous "*Septem contra Edinem*." At Surgeons' Hall she especially distinguished herself in anatomy, and the beautiful coloured drawings which she made of all her dissections in their various stages were the admiration of her teachers as well as of her fellow-students. Had her sympathetic nature then had freer scope, the medical woman question in Edinburgh might have been brought to a different termination. When all hope of University recognition was at an end there, and after having passed her first professional examination as an undergraduate of the University, Mrs. Ayrton left Edinburgh for Paris in 1872; and in the following year she accompanied her husband, Professor Ayrton, to Japan, where she remained until 1877. While there she taught midwifery to a class of Japanese women, having previously herself obtained the licence of the Obstetrical Society of London. On her return to Europe, Mrs. Ayrton completed the prescribed course of study at the hospitals and medical school of Paris, and then took her degree of M.D. in 1879. Her graduation thesis, "*Researches on the General Dimensions and the Development of the Body among the Japanese*," comprised the results of much careful and scientific observation, with deductions as to the effects on the race of the successive foreign immigrations into the country, and was illustrated

by lithographs drawn on the stone by herself. She subsequently became a licentiate in medicine and in midwifery of the King and Queen's College of Physicians in Ireland, and after some further clinical study was preparing to establish herself in practice in London, when her health, which had been severely tried by the vicissitudes of the long, wearying struggles of her student life, broke down; and the remaining three winters of her life were spent in a vain fight with disease on the shores of the Mediterranean. Mrs. Ayrton died of phthisis on July 19, at the early age of thirty-seven, leaving behind her one child, a daughter. During her short life Mrs. Ayrton contributed many articles to medical and other papers, and was the author of a well-known work, also illustrated by herself, called "*Child-Life in Japan*." We understand that she leaves ready drawn on the wood by herself all the illustrations, as well as the manuscript, for a further work on Japanese life.

## MEDICAL NEWS.

UNIVERSITY OF GLASGOW.—List of degrees conferred in the Faculty of Medicine:—

## DOCTORS OF MEDICINE (M.D.).

George Richard Allan, B.A., M.B., England; Angus Campbell, M.B., Scotland (Thesis—Certain Dangers to Health which result from the present system of Elementary Education in Scotland); William Alexander Caskie, M.A., M.B., Scotland (Thesis—Observations in Midwifery, with Special Reference to the Use of the Forceps); David Couper, M.B., Scotland (Thesis—Epidemic and Sporadic Diphtheria); Andrew Denholm, M.B., Scotland (Thesis—The Nature and Causes of Erysipelas); John Highet, M.B., Scotland (Thesis—Infantile Diarrhoea); Thomas Ballantyne Howie, M.B., Scotland (Thesis—Some Remarks on the Etiology and Treatment of Diphtheria); David Wood Inglis, (a) M.A., M.B., Scotland (Thesis—On the Prevention of Lead Poisoning among Workers in Whitelead Factories); David Newman, (a) M.B., Scotland (Thesis—Displacements of the Kidney); Edward Graham Ochiltree, M.B., Australia (Thesis—Hydatids of the Lung); Richard Prichard, M.B., Wales (Thesis—A Clinical Review of nearly 400 cases of Scarlet Fever); Charles William Stewart, M.A., M.B., Scotland (Thesis—Recent Researches on Tubercle: their Relation to certain points in connexion with Pulmonary Disease, with Illustrative Cases, etc.); James Mitchell Wilson, M.B., Scotland; John M. Yair, M.B., Scotland (Thesis—A Case of Enlarged Prostate, with Sacculization of the Bladder and Hidden Calculus).

## BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B. AND C.M.).

William B. Aitken, Scotland; Samuel Alexander, Ireland; Thomas G. Alexander, Scotland; David Arthur, Scotland; Robert E. Beveridge, Scotland; Benjamin Blaine, South Africa; James J. Campbell, Scotland; William Campbell, Scotland; John Clerk, Scotland; Francis H. Colvin, M.A., Scotland; John C. Crawford, Scotland; Robert Davidson, Scotland; Mahan Lal Day, India; J. Innes Dunlop, Scotland; William Dunlop, Scotland; William A. Forsyth, Scotland; George C. H. Fulton, Scotland; Herbert M. Gay, England; James F. Gemmel, Scotland; William Gibb, Scotland; William F. Gibb, Scotland; William Gordon, Scotland; Robert Gourlay, Scotland; James Hamilton, Scotland; William T. Hamilton, South Africa; James M. Headrick, Scotland; J. C. Herbertson, M.A., Scotland; Peter Hodge, Scotland; George M. Hogg, England; Thomas Howard, Scotland; Alexander Howie, Scotland; Robert R. Hunter, Scotland; Creit. Hutchinson, Ireland; Alexander Johnston, Scotland; Francis Johnston, Scotland; George G. Kenny, India; John Kerr, Scotland; James B. Lawson, Scotland; William Little, England; William Martin, Scotland; Alexander Morison, Scotland; George A. Morris, Scotland; James S. Muir, Scotland; Henry D. M'Culloch, India; John M'Donald, Scotland; Neil C. M'Donald, Scotland; John F. Macgregor, Scotland; Daniel M'Kenzie, Scotland; Hugh M. MacKintosh, Scotland; Archibald M'Lean, Scotland; J. R. Macnaughton, Scotland; David Orr, Scotland; John T. Prangnell, Scotland; Francis S. Prosser, Wales; W. F. Quaife, B.A., Sydney; David T. Richard, Wales; R. A. D. Robb, Scotland; John M. Robertson, Scotland; John Russell, Scotland; A. J. F. Skottowe, India; William A. Soga, South Africa; William Stafford, England; Ross S. Steele, Scotland; Andrew Stewart, Scotland; William L. Strain, Scotland; William Vost, Scotland; Alfred Williams, England; John C. Wilson, Scotland; John C. Young, Scotland; John Young, Scotland; Robert H. Young, Scotland; R. B. Young, M.A., Scotland; William T. Adam, Scotland; Robert M'G. Binnie, Scotland; Alexander Dickson, Scotland; James Gibson, Scotland; James Gledhill, England; John Logan, Scotland; John W. Murray, Scotland; John F. M'Gregor, Scotland; David M. Smith, Scotland; Patrick H. Walker, Scotland.

The following gentlemen were named as entitled to honours, to high commendation, and to commendation, on account of distinguished merit at the various examinations for the degrees of M.B. and C.M.:—

Honours.—John Innes Dunlop.

High Commendation.—William A. Forsyth.

Commendation.—Benjamin Blaine, Francis H. Colvin, M.A., James F. Gemmel, William Gibb, William F. Gibb, William Little, Alfred Williams, R. Bruce Young, M.A.

## FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

—During the April sittings of the Examiners, the following gentlemen were admitted Licentiates of the Faculty:—

H. M. Baylis, Southport; William Belcher, Cork; Gilbert H. Coates, Glasgow; J. C. Edmiston, Rutherglen; John F. Harrison, Manchester;

(a) Commended for thesis.



Alfred Hill, York; Ralph William Hodges, Queenstown; William H. Holden, Bolton; J. Jenkins, Ancaster; J. H. MacMullan, Belfast; Ed. James H. Midwinter, Barnet; Thomas Mowat, Glasgow; E. A. Praeger, Hitchin; G. W. A. Ross, Glasgow; R. Steele, Glasgow; And. W. Walker, Edinburgh; Henry Willett, Great Budworth.

The following have passed the final examination for the double qualification, and been admitted Licentiates of the Faculty and of the Royal College of Physicians of Edinburgh:

Alexander Cameron, Glasgow; Thomas E. Fliteroft, Preston; David K. Given, Newtonstewart; Thomas Gray, M.D., Ontario; Archibald S. T. Johnstone, Bridge of Allan; Nannystamby Lappayah, Ceylon; Harold Charles Ling, Glasgow; Thomas B. Macfarlane, Glasgow; Walter Morris, Glasgow; Samuel A. Metherell, Glasgow; Richard Henry Quine, Isle of Man; John C. Urquhart, Glasgow; Henry O. Watson, Leeds.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.**—The following gentlemen passed their First Professional Examination during the July sittings of the examiners:—

Denis Hassett, Waterford; William Gibb, Dundee; Richard Crawshaw Holt, Accrington; Charles Oliver Stanwell, Rochdale; Francisco Fernandes, Demerara; William Bernard Thomas Connolly, Dublin; Edward John Thomas, Chester; William Davies, Manchester; Richard Townsend Herbert Bland, Plymouth; Ralph Bennett Sidebottom, Mottram; William Knott, Oldham; Henry Caudwell, London; Herbert Peck, Wigan; Charles Augustus Thorne, Ireland; Hubert William Burke, co. Down; William Booth, Innerleithen; Edwin Joseph Booth, Durham; Frederick Martin, Dublin; Ernest Frederic Eliot, Birmingham; John Hepburn Dudgeon, Birmingham; Thomas Valentine Devey, Wolsingham; Robert Hall, co. Down; Arthur Windham Martin, Shropshire; George Lennox Moore, Staffordshire; John Charles French, co. Durham; Samuel Henry Steele, Staffordshire; Richard Arthur Scott, Yorkshire; Arthur Edward Newbury Browne, London; Benjamin Sidney Browne, West Bromwich; Samuel Horner Craig, co. Londonderry; George Todd, Manchester; Richard Griffith, Carnarvon; Edward John Hawkes, Brighton; Francois Lion Heisler, Mauritius; Charles Farrell, Dublin; George Thomas Hartley, Castleford; Francis Sidley, Egar, co. Kildare; Alfred Ernest Weightman, Liverpool; Benjamin Baynham, Dublin.

During July and August the following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

William Bradley, Dublin; John Nelms Hawtin, Bristol; James Maher, Ballinasloe; John Edmund Hutchings Stephens, Penryn, Cornwall; Hubert Hartley, Yorkshire; Thomas Williams, Anglesey; Charles Williams, London; William Henry Miller, Canary Islands; John Joseph Butler, Limerick; Thomas Macdonnell Parr, Chatham; Alfred Everley Taylor, Scarborough; Joseph Macnab, co. Cork; Edward Joseph Fernandez, Hong-kong; Highett Philip Westbury, Burbage; Charles Walter Hemming, Gloucestershire; William Steuart, Edinburgh; Odoardo Tomaso Achile Villani Van-Vestrandt, London; Robert Ashburner, Ulverston; John Hepburn, Rathin; John Walter Burbridge, London; Benjamin Franklin Wright Hurdman, Canada; James Fallon, Athlone; Hubert William Burke, co. Devon; John Poyntz Rice, co. Kerry; Frank Pritchard Montfi, Chester; David Anderson, Dollar; Alexander Thomas Leonard, co. Galway; Laurence John Raymond Louis Quin, Belfast; Frederick Knollys Pigott, Wexford; Charles William Purves, Huntingdon; Edward Morse, Crewkerne; Fitzgerald Uniacke Anderson, Halifax, N.S.; Alfred Thomas, Lancashire; George Blake Masson, Darjeeling; Patrick Kehir, Templemore; John William Walter Poyntz, Bombay; Harry Major Leckenby Williamson, London; Theodore Thomson, Aberdeen; Alexander Sutherland, Dumbarton; Eugene Wilton Anderson, Victoria; Edgar George Bulleid, London.

**ROYAL COLLEGE OF SURGEONS, EDINBURGH.**—During the July sittings of the examiners the following gentlemen passed their Final Examination, and were admitted L.R.C.S. Edin.:—

Albert Bleckly Clarke, Cambridgeshire; Joseph Harrison, Bradford; Archibald James Alexander Campbell, Perth; William Frederick Walker, Dover; William Houston Low, Ayrshire.

The following gentlemen passed their First Professional Examination for the Licence in Dental Surgery:—

James Main Nicol, London; James Johnstone, Nottingham; Alfred Henry Thomas, Chester; Aitken W. Cormack, Edinburgh.

The following gentleman passed the Final Examination, and was admitted L.D.S.:—

Charles William Glassington, London.

**KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.**—At a special examination for the Licences of the College, held on Friday, Saturday, and Monday, July 27, 28, and 30, the following candidate was successful:—

For the Licence to practise Medicine—

Egan, Charles James, M.R.C.S. Eng., 1857, King William's Town, Cape of Good Hope.

For the Licence to practise Midwifery—

Egan, Charles James.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—At the July Stated Examinations the following candidates, having passed the required examinations for the diploma, and

taken the declaration and signed the roll, were admitted Licentiates, viz.:—

Frederick W. Allwright, George Browning, John J. Buggy, John V. Byrne, Alexander Carte, Robert H. Clement, William Clifford, Arthur Cole, George P. Cope, Richard J. D'Arcy, Samuel R. Deane, William Delahunt, Patrick Donnellan, Patrick Duff, John Foley, Thomas F. Griffin, Thomas G. H. Hall, Frederick S. Heuston, Andrew Hunter, Joseph P. Kelly, John M. P. Kennedy, Daniel Kenny, Nathaniel S. Manning, Jeremiah T. Martin, John Martin, Alfred H. Middleton, Thomas Moyles, Richard Murphy, Andrew J. O'Flanagan, Joseph A. Purdon, William H. B. Robinson, George F. Roughan, Bartholomew Russell, Robert U. Russell, William S. Sprent, Edward C. Stack, William L. Symes, and Charles W. Wynne.

Thirteen were stopped.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 9:—

Bredin, Howard Albert, St. Edmond's-road, Bootle, Liverpool.

Child, Herbert, Headingley, Leeds.

Lankester, Herbert Henry, High-street, Leicester.

Leeming, Robert Whinerey, Holly Lodge, Buckhurst Hill, Essex.

The following gentleman also on the same day passed the Primary Professional Examination:—

Soden, Thomas Armand Bourne, Charing-cross Hospital.

#### DEATHS.

HARRISSON, HENRY, M.R.C.S., late of Upper Montague-street, W., at Gunnersbury, on August 11, aged 72.

McOSCAR, JOHN, M.D., at 4, Argyll-street, Regent-street, on August 8, aged 56.

OXFORD, RICHARD, M.R.C.S., J.P., late of Bridgwater, Somerset, at Sunnyside, Oldfield Park, Bath, on August 8, in his 65th year.

SOUTHBY, ANTHONY, M.D., at Bulford House, Wilts, on August 10, aged 83.

#### VACANCIES.

**BOROUGH OF SHEFFIELD.**—Medical Officer of Health. (*For particulars see Advertisement.*)

**CHESTER GENERAL INFIRMARY.**—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Candidates must possess double qualifications and be duly registered. Testimonials to be addressed to the Chairman of the Board, on or before August 27.

**GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.**—Junior Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be doubly qualified and on the Medical Register. Applications, stating age, with testimonials, to be sent to the Chairman of the Medical Board on or before August 18.

**GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.**—House-Surgeon. Salary at the rate of £100 per annum, with board, lodging, and washing. Candidates must possess a medical and surgical qualification and be registered. Applications, with testimonials, to be forwarded to the Secretary on or before September 1.

**GLOUCESTER COUNTY ASYLUM.**—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Candidates must be duly qualified men, registered both in medicine and surgery, and not over thirty years of age. Applications, with testimonials, to be sent to the Medical Superintendent (from whom all further information can be obtained), on or before August 20.

**HARTLEPOOL HOSPITAL AND DISPENSARY.**—House-Surgeon and Secretary. Salary £100 per annum, with board, lodging, and washing. Applications and testimonials to be sent to J. Rawlings, Esq., 13, Cliff-terrace, Hartlepool, not later than August 18.

**JERSEY PUBLIC LUNATIC ASYLUM.**—Superintendent Medical Officer. (*For particulars see Advertisement.*)

**LIVERPOOL ROYAL SOUTHERN HOSPITAL.**—Senior House-Surgeon. (*For particulars see Advertisement.*)

**WALLASEY DISPENSARY.**—House-Surgeon. (*For particulars see Advertisement.*)

**WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE-ROAD, W.**—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, and have attended ophthalmic practice for twelve months. Address, Secretary, at the Hospital, on or before September 1.

**WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.**—House-Surgeon. Salary £70 per annum, with board, lodging, and washing. Candidates possess a registered surgical and medical qualification. Applications, with qualifications and testimonials, to be sent to the Secretary, on or before August 15. The election will take place on August 23.

**PAPAL HONOURS.**—His Holiness the Pope has just conferred the Knight Commandership of the Illustrious Order of Pius on Dr. Anthony Colling Brownless, K.G.G., Vice-Chancellor of the University of Melbourne, and Senior Consulting Physician, Melbourne Hospital. This decoration carries with it a patent of nobility. The order is a temporal one, and is conferred upon members of all religious creeds who, from their distinguished attainments, high official rank, or great public services, are considered worthy of the honour. Dr. Brownless, who received his professional education at St. Bartholomew's Hospital, is an M.D. of the University of St. Andrews and of Melbourne University, and is a Member also of the Royal College of Surgeons of England.



## VITAL STATISTICS OF LONDON.

Week ending Saturday, August 11, 1883.

## BIRTHS.

Births of Boys, 1162; Girls, 1039; Total, 2261.

Corrected weekly average in the 10 years 1873-82, 2552.0.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	653	659	1312
Weekly average of the ten years 1873-82, corrected to increased population ...	£62.1	776.7	1638.8
Deaths of people aged 80 and upwards ...	...	...	40

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669833	7	7	2	4	...	3	...	...	22
North ...	905947	1	4	16	5	1	6	...	...	16
Central ...	282238	4	3	5	...	...	1	...	...	12
East ...	692738	16	19	2	2	...	2	...	...	12
South ...	1265927	1	25	14	3	4	3	...	...	32
Total ...	3816483	2	56	59	21	15	1	15	...	94

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.681 in.
Mean temperature ...	...	...	...	...	...	59.4°
Highest point of thermometer ...	...	...	...	...	...	72.3°
Lowest point of thermometer ...	...	...	...	...	...	49.7°
Mean dew-point temperature ...	...	...	...	...	...	52.2°
General direction of wind ...	...	...	...	...	...	S.W. & W.S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.28 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 11, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Aug. 11.	Deaths Registered during the week ending Aug. 11.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2261	1312	17.3	72.3	49.7	59.4	15.22	0.28	0.71
Brighton ...	111262	59	40	18.8	71.3	51.0	60.4	15.78	0.43	1.09
Portsmouth ...	131478	61	37	14.7	...	...	...	...	...	...
Norwich ...	89612	49	26	15.1	...	...	...	...	...	...
Plymouth ...	74977	48	31	21.6	71.1	52.4	58.8	14.89	0.27	0.69
Bristol ...	212779	119	61	15.0	...	...	...	...	...	...
Wolverhampton ...	77557	45	17	11.4	70.5	42.6	54.4	12.44	0.84	2.13
Birmingham ...	414346	246	145	18.2	...	...	...	...	...	...
Leicester ...	129483	65	48	19.3	...	...	...	...	...	...
Nottingham ...	199349	103	69	18.1	74.6	43.4	56.4	13.55	1.14	2.90
Derby ...	85574	53	23	14.0	...	...	...	...	...	...
Birkenhead ...	88700	48	22	12.9	...	...	...	...	...	...
Liverpool ...	566753	293	235	26.2	65.7	50.7	55.3	12.95	1.56	3.94
Bolton ...	107862	64	35	16.9	63.7	44.7	53.0	11.67	2.37	6.02
Manchester ...	339252	207	155	23.8	...	...	...	...	...	...
Salford ...	190465	116	86	23.6	...	...	...	...	...	...
Oldham ...	119071	78	34	14.9	...	...	...	...	...	...
Blackburn ...	108460	66	29	13.9	...	...	...	...	...	...
Preston ...	98564	58	43	22.8	69.0	52.0	56.5	13.61	1.39	3.53
Huddersfield ...	84701	57	24	14.8	...	...	...	...	...	...
Halifax ...	75591	37	16	11.0	...	...	...	...	...	...
Bradford ...	204807	111	55	14.0	69.6	50.2	56.6	13.67	0.58	1.47
Leeds ...	321611	194	108	17.5	73.0	49.0	57.5	14.17	0.47	1.19
Sheffield ...	295497	174	131	23.1	68.0	48.0	55.3	12.95	0.89	2.26
Hull ...	176296	115	63	18.6	72.0	45.0	55.1	12.84	0.75	1.90
Sunderland ...	121117	96	49	21.1	73.0	48.0	58.4	14.66	0.52	1.32
Newcastle ...	149464	90	65	22.7	...	...	...	...	...	...
Cardiff ...	90033	65	30	17.4	...	...	...	...	...	...
For 28 towns ...	5620975	4983	3039	18.4	74.6	42.6	56.7	13.72	0.88	2.24
Edinburgh ...	235946	126	70	15.5	66.0	48.2	56.0	13.33	0.38	0.97
Glasgow ...	515589	317	245	24.8	65.0	49.0	56.4	13.55	1.13	2.87
Dublin ...	349385	206	140	20.9	67.7	47.2	57.1	13.95	1.94	4.93

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.68 in.; the highest reading was 30.01 in. at the beginning of the week, and the lowest 29.43 in. on Friday afternoon.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

## MEDICAL UNION SOCIETY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should take it as a favour if you would kindly notify in the columns of your journal, that during the vacation, and consequent closure of the rooms, of the Medical Union Society, members wishing to obtain or exchange books from the Society's library, or Messrs. W. H. Smith and Sons' circulating library in connexion therewith, can do so by applying to me at 3, King's Bench Walk, Temple, any day (Saturdays and Sundays excepted), between the hours of 10 a.m. and 4 p.m.

I am, &c., JAMES GREENWOOD,  
Hon. General Secretary.

August 11.

## A HINT FROM AMERICA.

A MAN obtained a verdict for \$1000 damages against the City of Elkhart, Ind., for injuries sustained by being thrown from a waggon on an unfinished street. He asserted that kidney disease ensued. The city put a life insurance agent on his track, who induced him to make application for a policy. In this application he has made affidavit that he was not afflicted with kidney disease, and never had been. The Court has granted the city a new trial, and the authorities are congratulating themselves on the success of their stratagem.—*Boston Medical and Surgical Journal*.

"Cramming."—In distributing the prizes awarded to the successful students at the Macclesfield Grammar School, the Bishop of Manchester condemned the system of "cramming," which he said was too common in our schools. The Americans had found it to be a false educational basis, and had had to retrace their steps.

*Umbrellas for Soldiers in India.*—The *Times of India* advocates umbrellas for soldiers. It says the result of not using them is to fill the hospitals; but what matters this, so that the effeminacy of hoisting an umbrella is avoided? In these times the military fashions are set by commanding officers, whose theory is that men can be "inured" to the sun by freely exposing them to its full force. Umbrellas for soldiers on parade, or for use in the mornings or evenings, no one would recommend; but there are many occasions when umbrellas would prove an immense boon to the men.

*Health of Manchester.*—Dr. Samelson recently read at the Memorial Hall, before a combined meeting of the Manchester and Salford Sanitary Association and other bodies, a paper on the health of Manchester, which has since been published. It directs attention to the fact that Manchester continues, in turn with Liverpool, to hold the position of the most unhealthy of the towns in England, and shows by official evidence that the unsatisfactory condition of the dwelling-houses, new as well as old, of the mass of the people must be regarded as one of the foremost causes of ill-health. He recommends that effect should be given with greater promptness to the suggestions and counsels of the Medical Officer of Health, and urgently exhorts the Corporation no longer to postpone "the often prayed for" amplification and consolidation of their building by-laws.

*Cremation, Italy.*—A new building, intended for the cremation of the dead has been erected in the Campo Verano, in the neighbourhood of Rome. It is divided into three parts—the hall reserved for the relatives of the deceased, the furnace, and the catacombs. The increasing dread of infectious disease is expected to lead to a considerable increase in the practice of cremation in Rome.

*Anti-Beer-Adulteration Association.*—At a meeting of the Association held at Maidstone, the President stated that last year brewers used substitutes equal to 245,000 cwt. of hops, and urged that, as beer purported to be a liquor made of malt and hops, it was necessary that a liquor differently compounded should not be allowed to be sold under that name. Resolutions were passed approving of the objects of the Association, and that, to prevent the practices complained of, rewards should be offered for information as to the secret use of substitutes, and also to call on dealers in substitutes to declare their sales to the Government department.

*Proposed Local Board for Eastbourne.*—A public meeting is to be convened for the purpose of promoting a petition to the Local Government Board for their sanction to establish a local board for the town. The inhabitants are realising the importance of improvements in the local drainage, and of efficient supervision of building, which is carried on largely in the town and neighbourhood.

*A Difference of Medical Opinion.*—At the Birmingham Police-court an ex-policeman was brought up, on remand, charged with the manslaughter of his wife. The prisoner stands committed, on the coroner's warrant, upon the evidence of the surgeon who made a post-mortem examination of the body and deposed that the death had been directly accelerated by violence. On the other hand, Dr. W. Barratt, who attended the woman in her last illness, now gave it as his opinion that the effects of the violence which caused the bruises described had passed off, and had nothing to do with death. On this conflict of evidence the magistrate stopped the case, and the delinquent was discharged so far as the magistrate's jurisdiction was concerned.



**Houses Unfit for Occupation.**—Dr. Bianchi, Medical Officer of Health for St. Saviour's (Borough) District Board of Works, reports to the Board the particulars of forty-one houses, all of which were more or less bad, and past proper repair, and not one of which was fit for habitation. He recommended that his report be forwarded, through the Sanitary Committee, to the Metropolitan Board of Works. Referred to the Sanitary Committee.

**Public Park, Oldbury.**—The Local Board has taken steps for acquiring a public park, recreation ground, and baths for the town. It is proposed to purchase about seventy acres of the Round's-green Hills.

**Cleansing House-Cisterns.**—A suggestion is made that the water companies should supply the proper staff and necessary materials at a certain small charge to cleanse periodically the house water-cistern. The cistern is invariably placed in a most inconvenient position, and it is not without difficulty and some risk it can be got at for this purpose. The ordinary female servant cannot, consequently, do the work; hence the reason that ninety-nine cisterns out of a hundred are not cleansed for years. The utility of the suggestion is obvious, but the water companies are hardly likely to adopt it. An independent organisation, however, for the proposed work would, we think, meet with the general support of the public.

**Reeve.**—Yes; it is stated that, notwithstanding the fact that something like one hundred and eighty tons of butterine are brought into the London market every week, the demand for English-made butterine exceeds the supply.

**Last Week's Bank Holiday.**—At the Metropolitan Police-courts, with an exception or two, the magistrates had before them no more than the usual number of charges consequent upon this public holiday. The Westminster magistrate remarked, on the day following the holiday, that the charges showed a great falling off as regarded cases of drunkenness, and at most of the courts such was also found to be the case. It would appear that the general decline of insobriety on these occasions and the progress of education are producing an ameliorating effect in the habits of the working classes.

**A Well-merited but not very Generous Recognition.**—The Town Council of Birmingham, on rewarding the borough police officers who were instrumental in arresting Whitehead and the other conspirators, awarded their thanks to Dr. Hill, the borough analyst, for the assistance he had rendered in the destruction of the dangerous explosives found at Whitehead's nitro-glycerine distillery.

**The Wandsworth District Board of Works and the Police Magistrate.**—At the last meeting of the Board attention was directed to certain summonses which had been taken out by the Board as to nuisances affecting the health of the public, which had been adjourned for eight weeks by the magistrate at Wandsworth. After some discussion, a resolution was adopted, that a letter be written to the Home Secretary, calling his attention to the want of proper provision in that district for the hearing of summonses, particularly to the above-mentioned nuisance case, and to the great danger that, under the present circumstances, may arise in consequence; also, that for some years it has been quite impossible the business of that large district (containing a population of some 200,000) could be carried on at the Love-lane Police-court, and asking that proper accommodation may be at once provided in a more central position.

**Paying Philanthropy.**—The Improved Industrial Dwellings Company now possesses thirty-two estates in various parts of the metropolis, on which 4144 dwellings have been erected and are in occupation; 615 more are in course of erection—making a total of 4759 tenements. On the completion of these the number of persons residing in the Company's dwellings will be nearly 25,000. The gross rents of the past half-year amounted to £37,889. The usual dividend of 5 per cent. has been declared after carrying to the reserve fund £3000.

**Stillborn Children.**—After considerable deliberation on the evidence adduced at an inquiry held at the Middlesex Hospital, before Dr. Danford Thomas, respecting the death of a male child, the following verdict was returned:—"That the deceased child died from the effects of debility, from want of vital power at birth, and from natural causes; and the jurors, having heard in evidence that the midwife agreed to undertake the burial of the said child, and accept the sum of 5s. for so doing, and instead of so doing disposed of it to the authorities of Middlesex Hospital as a stillborn child, do consider she is amenable to the law for so doing; and, further, they would suggest that more stringent measures should be adopted at the Middlesex Hospital to ascertain whether or no such children brought to the Hospital are stillborn or otherwise."

**Copper Salts as Preservatives from Disease.**—Regarding the virtues of copper as a protection against infectious disease, Dr. Burq has inquired as to the death-rate amongst copper workers during the last epidemic of typhoid fever in Paris, and finds further confirmation of his views. He believes that the organism of workmen exposed to the action of copper undergoes a progressive impregnation opposed to the development of the microbes of infectious diseases. He proposes to verify this conclusion by studying the action of salts of copper upon the microbes cultivated by M. Pasteur.

**Waterworks, Birmingham.**—The new storage reservoir at Shustoke, the property of the Corporation, was opened on the 4th inst., and its area is ninety acres. The Birmingham Water Department has now a total storage capacity of 650 millions of gallons, and is in a position to deliver twelve millions of gallons of water a day for seventy or eighty days during a period of drought. The contract for the works was taken at £78,900.

**Keighley Cottage Hospital.**—The annual report, just issued, remarks on the great success which has characterised the efforts of the past year, the increase in the receipts being a notable feature. The amount contributed by workpeople was more than doubled; gifts of £100 and £50 had been received. The debt on the Hospital had been reduced by £126 7s., leaving £76 19s. 4d. due to the Treasurer, which it was expected would be shortly cleared off.

**"Doctored" Claret.**—Mr. Sandwith, British Consul in Crete, reporting on the production of wine in the island last year, refers to the Greek wines, which are shipped to France notoriously for the purpose of being "manipulated" and re-exported, under the name of claret, at prices which averaged only 8½d. a gallon, free aboard ship.

COMMUNICATIONS have been received from—

Dr. SUTHERLAND, London; Messrs. BLAKISTON AND Co., Philadelphia; THE MEDICAL OFFICER OF HEALTH FOR HOVE, Hove; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. F. H. WILLIAMS, Glasgow; THE SECRETARY OF THE MEDICAL FACULTY, Aberdeen; THE REGISTRAR-GENERAL FOR IRELAND, Dublin; Dr. MERCIER, Dartford; Dr. CLIFFORD BEALE, London; Mr. J. CHATTO, London; Mr. T. M. STONE, London; Mr. JOSEPH HADLEY, London; Mr. JAMES GREENWOOD, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. NORMAN KERR, London; Dr. JOHN C. LUCAS, India; Dr. B. W. RICHARDSON, F.R.S., London.

BOOKS, ETC., RECEIVED—

Bristol Sanitary Authority: Prevention of Cholera—The Preservation of Fish Life in Rivers, etc., by Hon. W. F. B. Massey Mainwaring—Report on the Sanitary Condition of the City and County of Bristol during the Quarter ending June 30, 1883—How to Meet Cholera—A Guide to the Practical Examination of Urine, by James Tyson, M.D.—Alcoholic Inebriety, by Joseph Parrish, M.D.—Report on the Health of the Borough of Birmingham for the Quarter ending June 30, 1883—On the Natural History of Dysmenorrhœa, by John Williams, M.D., F.R.C.P.—Hammam Rirha, by G. H. Brandt, M.D.—Royat, by G. H. Brandt, M.D.—Tuberculosis, by Eric E. Sattler, M.D.—Report of Proceedings at the Annual Distribution of Prizes of the Ceylon Medical College—The Sanitary Clauses of the Draft Glasgow Police Bill, by Eben. Duncan, M.D., etc.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Ciencias Médicas—Liverpool Medico-Chirurgical Journal—Popular Science News and Boston Journal of Chemistry—Aberdeen Journal, August 6—Western Medical Reporter—Physician and Surgeon—Journal of Cutaneous and Venereal Diseases—New York Medical Journal—Canada Lancet—Therapeutic Gazette—Philanthropist—North Carolina Medical Journal—Students' Journal and Hospital Gazette—Chemist and Druggist.

## APPOINTMENTS FOR THE WEEK.

August 18. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

20. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

21. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

22. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

23. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

24. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



## THE BRADSHAWE LECTURE ON CARDIAC ANEURYSMS.

*Delivered before the Royal College of Physicians of  
London, August 18, 1883.*

By JOHN WICKHAM LEGG, F.R.C.P. Lond.,  
Assistant Physician to, and Lecturer on Pathological Anatomy at,  
St. Bartholomew's Hospital.

WHEN, Sir, you did me the honour of nominating me to the office of Bradshawe Lecturer, I felt that within the hour allotted to the discourse I could not attempt to deal with any large or wide topic in Medicine or Pathology. I propose, therefore, to ask the College to consider the subject of Aneurysms of the Heart; appearances which are indeed but artificial varieties in the phenomena of myocarditis and of endocarditis; but in making a special study of which we are following in the footsteps of many distinguished morbid anatomists, whether within or without the threshold of this ancient and learned Society.

As everyone knows, the word aneurysm means a dilatation; and, accordingly, in the early days of morbid anatomy it was applied to that state of the heart which is now called dilatation. This manner of speech continued till late into the present century, so that we frequently find the word aneurysm of the heart used to signify a simple dilatation. But the first observers of the partial dilatations of the walls—John Hunter and Matthew Baillie—used the word aneurysm to describe them; and this name of aneurysm to signify the partial dilatations has been retained ever since.

The first observations of partial aneurysm of the left ventricle appear to have been made within a few months of each other. In 1757, Galeati published a case which would seem in all likelihood to have been a ruptured aneurysm, though Dr. Peacock does express some doubt. Be this as it may, there can be no doubt that in the April of the same year John Hunter found an aneurysm of the apex in the body of an old man who had suddenly died. In Hunter's exact words: "At the apex it was forming itself into a kind of aneurism, becoming there very thin." Two years later, Walter, of Berlin, received from Büttner, of Königsberg, a heart with an aneurysm almost as large as the heart itself, and which Walter described in 1785 to the Academy at Berlin.

Under the head of "Aneurysm of the Heart" in the first edition of Matthew Baillie, there is a definition of the disease which is good even at the present day. "It consists," he says, "in a part of it (i.e., the heart) being dilated into a pouch which is commonly more or less filled with coagulated blood." Matthew Baillie also speaks of aneurysm of the heart as a rare disease, an opinion in which I think most pathologists will agree.

During the nine years that I was in the post-mortem room at St. Bartholomew's Hospital there were 1890 examinations made; only three cases of aneurysm of the left ventricle were found. A higher ratio is given by Willigk, of Prague. In that town there were 1600 examinations made from February 1, 1850, to February 1, 1852, and as many as nine cases of "partial aneurysms of the heart" were seen. Heschl, as the outcome of 34,000 examinations at Vienna, would seem to give the proportion as one to every 200, though it must be owned that his statement is not quite plain; but, granting that it refers to cardiac aneurysm, his numbers agree more with those of Willigk than with mine.

Throughout Thurnam's essay, which, although written nearly fifty years ago, is still the best that has appeared, he has applied the numerical method to all the details of his subject. This plan of investigation (the favourite of Louis), so much in vogue when Thurnam wrote, has in our day fallen again into disuse. But if we desire to make any comparison between Thurnam's results and those of later observers, it will be necessary still to follow Thurnam's method; and though I cannot myself rate numeration as one of the most valued discoveries in the history of human progress, yet on this occasion we are forced to reckon with Thurnam's work, and we must therefore stand in Thurnam's

ways. In order, however, to avoid using Thurnam's figures over again, and comparing together the same cases with only a few more added to them (an error which has not been everywhere and always avoided), I have taken only the cases which were published after Thurnam's essay, and I have made my starting-point the year 1840.

Of aneurysm of the left ventricle I have collected over eighty cases (about the same number as Thurnam's), so that our results can be conveniently compared. First as to the place of the aneurysm. Breschet taught that the apex was the ordinary spot at which aneurysm formed. But in Thurnam's collection there were 27 cases of aneurysm of the apex; elsewhere 39, of which 21 were at the base. So not only were other parts of the muscular walls besides the apex the seat of aneurysm, but the apex itself furnished a fewer number than the walls. In my own collection 59 were at the apex and 31 at other parts of the left ventricle, thus restoring the predominance of the apex, but by no means to the exclusive place which it took in Breschet's monograph. In 21 of Thurnam's the aneurysm was at the base of the ventricle, thus almost rivalling the apex. In the observations which I have seen I did not find myself able to make any sharp separation between the aneurysms of the base and those of the walls.

Then as to sex. Thurnam has 30 men against 10 women. I find 64 men to 24 women; a higher proportion of women, therefore, than Thurnam. If the cases be divided into aneurysms of the apex and of the walls, the proportion is altered. Of the apex, there were 41 men to 18 women; and of the walls, 23 men to 6 women.

Then as to age. Out of 35 cases, Thurnam found the highest number (9) between twenty and thirty; 3 between thirty and forty; 6 between fifty and sixty; 4 between sixty and seventy; and 7 between seventy and eighty. Out of 81, I have found the highest number, on the contrary (19), between fifty and sixty; 14 between sixty and seventy; and only 9 between seventy and eighty. So also between twenty and thirty only 12 cases were found, and 6 between thirty and forty; 15 between forty and fifty; so that the greatest number fall between forty and seventy. Out of 81 cases, 48 were between the ages of forty and seventy. Aneurysm of the heart would, therefore, appear to be a disease of middle and advanced life, rather than a disease specially common below thirty, as Thurnam believed. Loebel also found in his collection that most cases were seen between twenty and thirty; but he wrote so soon after Thurnam, that I fear, in this matter, he only too faithfully reflects Thurnam's statistics.

Thurnam attempted to carry into the pathology of aneurysms of the heart the same multiplicity of division which in his time perplexed the student of arterial aneurysms. As to these, it will not be needful to do more than here to make this mention of them. There is, indeed, one point of importance, whether the aneurysms of the left ventricle be true or false. Breschet taught that in all cases the aneurysm was false, that there was a rupture or ulceration of the endocardium; and the blood, burrowing in the muscular wall, in this way formed the aneurysm. This statement must now be abandoned. No one who has examined a cardiac aneurysm with the aid of the microscope will assert that the endocardium, however changed, does not enter into and clothe the inside of the sac. Representatives of all the constituents of the walls of the heart, endocardium, myocardium, and pericardium, are to be found in the wall of every aneurysm. The "diffused true aneurysm" of Thurnam must of necessity involve the apex of the heart, as it is part of its definition that the whole circumference of the ventricle is involved in the disease.

Putting aside the congenital diverticula from the apex of the ventricle, which have been described, the youngest case yet known is one reported by Dr. Wilks; a little girl of twelve died suddenly while at play from the bursting of the aneurysm. The oldest, that of Mr. Meade's, a man of eighty-eight, in the enjoyment of good health up to the time of his sudden death, which was caused by rupture of the ventricle at a place where there was some bulging.

As regards size, shape, arrangements, and contents of the sac, I have little or nothing to add to the description given of them by Thurnam.

Since the days of Cruveilhier it seems to have been agreed that the greater number of aneurysms of the left ventricle have their source in the weakening of the walls



caused by a degeneration of the muscular tissue into fibrous scars. As Cruveilhier says, this pathological state is not so uncommon. I have met with two forms—one is a firm, white, almost cartilaginous, extra-vascular growth, embedded in the walls of the heart, scattered diffusely in islets around one large mass, or in several large masses at a distance from one another, irregular in shape and sharply separated from the surrounding tissue. Under the microscope there is seen a transparent or slightly fibrillar matrix, in which appear nuclei, rounded in shape, and varying in size from a red to a colourless blood corpuscle. Around the nuclei may be traced cells about double the size of the nuclei, rounded, oval, or even spindle-shaped. At the borders of the new growth the matrix is the prominent feature, passing between and separating the muscular fibres, and containing but a small number of nuclei. Passing away from the edges towards the centre of the growth, the nuclei become much more abundant, until at last they form the greater part of the growth. In the middle of the tumour there is seen a confused granular mass, in which no very definite structure can be made out, a few fibres and deformed nuclei being now and then detected. No giant cells can be seen.

The other form differs from that just described both in its naked-eye characters and in those seen under the microscope. It is of a white colour, not firm, but compressible, tough, amply supplied with vessels, creaking under the knife like the cirrhotic liver, of a distinctly fibrous appearance, the fibres having a definite direction usually following that of the muscular tissue which they have displaced. Commonly there is only one of these fibrous patches. Under the microscope the resemblance to fibrous tissue is more complete. Sometimes tissue with fine, delicate, wavy fibres, hardly to be distinguished from fibrous tissue, may be seen; at others, ill-formed, coarse fibres, with no definite direction, but rather tangled, and mixed with oil globules and granules, make up the bulk of the section. In this form there are no large nuclei with cells, or translucent matrix, but the whole is formed of fibres. Now and then a muscular fibre, showing well-marked striation, will make its appearance, running in the same direction as the fibres.

Whether these two forms be the same, differing merely by their age, I do not think that there are, at the present moment, sufficient grounds to determine. I incline, however, to the opinion that they are distinct. As early as 1872 I had put these two varieties side by side in a paper in the *St. Bartholomew's Hospital Reports*.

What, however, is the cause of this fibrous degeneration of the heart? Virchow is, it would seem, the mainspring of the opinion that would refer all these changes to syphilis. Doubtless owing to his authority, these fibrous changes in the heart were, for several years, almost unanimously set down as one of the manifestations of syphilis. But of late years a reaction has set in. We have learnt to trust less to the morphological character of the growths, and more to the evidences of syphilis in other parts of the body. Many cases of fibrous disease of the heart have been seen of late, in which no other evidence of syphilis could be found, although diligently sought for.

Within the last year or two another theory has been broached, which attributes these changes in the muscular walls of the heart to an interference with their nutrition by the coronary arteries. It is now more than thirty years ago since you, sir, demonstrated that the ligature of the coronary arteries of the heart was quickly followed by sudden death. It had been maintained by Chirac at the end of the seventeenth century that no such sudden failure of life followed the occlusion of these arteries; and, within the last twenty years, Panum, Albert von Bezold, and, more lately, Samuelson, have expressed the same opinion as Chirac. But, in the first fortnight of 1881, G. Sée, with his fellow-workers, Bochefontaine and Roussy, read before the Academy of Sciences at Paris a paper, in which they gave the results of their experiments on occlusion of the coronary arteries. They found within one or two minutes of the ligature of both coronary arteries that the movements of the heart ceased; and much the same result followed if one or other coronary artery were tied, only that ligature of the right caused death a little less rapidly than ligature of the left. In the September number of Virchow's *Archives* for the same year, Cohnheim published a series of experiments on the same subject, coming much to the same conclusion as Sée.

Sudden cessation of the contractions of the heart followed ligature of one coronary artery, on an average, in 100 seconds. Upon this proposition that the heart ceases to contract immediately after occlusion of a coronary artery, Cohnheim has built a theory of the origin of fibrous myocarditis—viz., that it is due to plugging of the cardiac arteries; in other words, that the fibrous myocarditis is a necrobiotic process like that of infarction. Karl Huber has thought to support Cohnheim's view of the part which the coronary arteries play in the formation of aneurysms of the heart by bringing together eighteen cases of fibrous degeneration of the cardiac walls, noticed in the Leipzig Pathological Institute, in all of which he found highly marked atheroma of the coronary arteries. Now, one is at once struck, in looking over Huber's table, by the advanced age of nearly all his cases. Only 4 are below sixty-two, the youngest being forty-seven; 6 of the rest are over seventy years, 2 are over eighty, and 2 over ninety, so that it is hardly surprising that extensive atheroma should be found. Indeed, atheroma in the coronary arteries is not very rare. After forty it is a common appearance, and indeed it may be seen much earlier. I have noticed it in a boy of sixteen, and some have thought the coronary arteries more subject to atheroma than any other in the body—an opinion which my own experience leads me rather to accept than to reject. It is possible that their peculiar structure, described by Dr. Norman Chevers, may have some relation to their proneness to atheroma. Whether, on the other hand, some interference with the blood-supply, in the shape of atheroma or plugging, always precedes chronic myocarditis, the following facts may help us to judge. There are in the museum of St. Bartholomew's Hospital six specimens of aneurysm of the heart due to fibrous degeneration of the walls. All but one have been taken from young persons below forty. The coronary arteries have been traced in all, but no marked change discovered in any but the heart taken from the man of forty to fifty years. In him early atheroma was found. In the heart from a girl of nineteen a branch of the left coronary artery passed over the tumour, and, as might be expected, was there plugged by a thrombus. No source of emboli, save the aneurysms themselves, could be found in the hearts, though, of course, it may be answered that the thrombi had been there, but had been washed away. In the published cases of aneurysm in which the coronary arteries were reported to be healthy, the patient was young—twenty-five in Craigie's case, thirty in Dr. Hilton Fagge's, thirty-nine in Leyden's, and even forty-four in Lancereaux's; but the cases in which the arteries were diseased were nearly all over fifty. It is true that in Dr. Cholmeley's case the man was forty-eight, but even here the arteries, though thick-walled and rigid, were permeable. To me it seems far more likely that the atheroma follows the age of the patient, and is independent of the fibrous scarring, than that the atheroma causes the fibrous degeneration.

There is but little evidence to bring forward that blocking of the coronary arteries causes a fibrinous myocarditis. There are many cases on record in which the arteries were blocked, and yet no mention is made of fibrous changes. I will speak particularly of Dr. Greenfield's carefully recorded case. In a woman, aged twenty-seven, the orifices of the coronary arteries were completely concealed by the swelling of the coat of the aorta, and were indicated only by small vertical puckering on the surface. To the microscope only, many hours after death, the muscular tissue showed slight but widely distributed fatty degeneration in the centre of many of the fibres, but no fibrous changes are spoken of.

Further, if fibrous myocarditis be due to the plugging or occlusion of the coronary arteries, it is hard to explain why it should be so limited to the left ventricle. I have seen many cases of fibrous myocarditis, but, as far as I can remember, the disease had begun in all in the left ventricle, not in the right; and the same may be said of the cases collected by Dr. Hilton Fagge and by Huber, in which the right ventricle has very rarely shared in the disease; and even when this has been the case it was rather by spreading than by the appearance of a fresh centre.

In ascribing the cause of fibrous myocarditis to blocking of the arteries, Cohnheim also appeals to a statement which may be found in many anatomical books, and which he himself professes to have confirmed, viz., that the coronary



arteries do not anastomose. Undoubtedly this is an important aid to Cohnheim's view; I determined, therefore, to test it for myself. A number of human hearts were injected with blue-coloured size. On injecting the main branch of one coronary artery, the other was very readily filled, and they communicated, not, as some writers assert, by the branches in the horizontal sulcus of the heart, but by branches over the ventricles and apex. One large branch could be seen passing directly over the apex, by which a good supply of blood would seem to be given to this part.

These injections were kindly made for me by Mr. A. A. Bowlby, the curator of the museum at St. Bartholomew's. I afterwards repeated them myself in the heart of the sheep, and with the same result.

The results at which I have arrived are so like to those lately published by Dr. Samuel West, that, to avoid any suspicion of borrowing from him, I am anxious to state that the experiments were made in the Christmas vacation of 1882, and that I was quite unacquainted with the fact that Dr. West had undertaken a research upon this subject until a fortnight before it was published. Thus, my own experiments were quite independent of Dr. West's; they were from the first intended to form part of the argument in this lecture, and to be read before this College.

There is one case, that of Mr. A. W. Stocks, which may be quoted as affording support to the theory of aneurysm from want of nutrition. In a woman, aged twenty-seven, there was found a local atrophy at the apex of the left ventricle, and here the wall was so thin as to be translucent. One coronary artery was said to be absent. Here there seems a case much in favour of Cohnheim's view. But I have communicated with Mr. Stocks, and he has very kindly informed me that the newspaper account which I have seen of his case is incorrect, and that the distribution of the coronary arteries was quite natural, only they arose by a common trunk.

None of the causes of fibrous myocarditis which have been brought forward can be looked upon as proved. Thurnam suspected that the pericarditis which so commonly attends aneurysm might be the cause rather than the effect—a speculation which I do not think would now find favour with many. Of the cause of fibrous myocarditis, it must be owned, we have as yet no clear knowledge; but I incline myself to the opinion that it will be found some day to be closely akin to those causes which make endocarditis and so many other pathological processes choose as their seat the left ventricle and the left endocardium rather than any other chamber of the heart.

It has been said that from the days of Cruveilhier and Thurnam morbid anatomists have looked upon fibrous myocarditis as the chief cause of aneurysm. Dr. Hilton Fagge, in a paper which must be known to every Fellow of this College, and to which I am myself much indebted, has gone a step further, and asserted it to be the only cause of aneurysm. This opinion seems to me somewhat too absolute. It must be owned, it is true, that, as time goes on, the number of cases set down to any other cause than fibrous myocarditis hardly increases; but fatty degeneration certainly deserves attention as a cause of aneurysm. Dr. Fletcher's case, sometimes quoted, seems to have been one of fatty degeneration without aneurysm; and in Mr. Meade's case it may be said that the bulging was post-mortem, and caused by the rupture of the heart. But in Dr. Peter Mere Latham's case there can be no doubt that there was an aneurysm with thin, easily torn walls, and that the whole muscular tissue of the heart "was flabby, pale, and lacerable—a condition which seemed to arise from its partial conversion into fat." Then Pelvet has himself observed the following case:—A woman fifty-nine years of age died with all the symptoms of *angina pectoris* in one of Potain's wards at the Necker Hospital at Paris. Close to the septum in the lower third of the fore surface of the heart there was a bulging the size of a small orange; its walls, thin and little resistant, were composed of the three layers, pericardium, myocardium, and endocardium; but the myocardium showed highly marked fatty degeneration, with hardly any striation of the muscular fibres. The same morbid appearance extended in a less degree through the other parts of the heart.

There is also a case of Leyden's: in a man, who was thirty-nine years of age and very fat, a small aneurysm of the left apex was seen. No very great fatty degeneration of the fibres was noticed, but in some parts of the heart, especially

abundant at the apex of the left ventricle, there were found narrow septa of adipose tissue pushing themselves between the muscular fibres, and causing much separation of the fibres. Then, in a few places and in small number, were seen between the muscular fibres spaces of fibrous tissue showing a few nuclei and fat-drops. These fibrous patches could be seen only with the microscope, and Leyden was of opinion that they were the result of the absorption of the adipose tissue which at first separated the muscular fibres from one another. Dr. Hilton Fagge would doubtless prefer to read these phenomena backwards, but I submit to him both Dr. P. M. Latham's, Pelvet's, and Leyden's cases as worthy of his consideration.

May the rupture of cysts or of abscesses into the cavity of the heart be the beginning of aneurysm? With former observers I am inclined to think that this is possible, but that it is not yet proved. Some forty years ago Griesinger described a cavity left in the septum of the ventricles by the escape of a hydatid; and in 1859 the late Dr. George Budd showed to the Pathological Society a similar cavity at the apex of the right ventricle. Dr. Wilks has described a very interesting case: the hydatid was found loose in the left ventricle, and at the apex was a hard, opaque, cartilaginous structure of the size of half-a-crown, where the muscular tissue was absent. It seems likely that if the hydatid had been small enough to have escaped into the general circulation, and thus to have allowed the patient to go on living, the foundation of an aneurysm in all these cases would have been laid.

With the supposition of abscesses bursting into the cavity of the heart the matter is different. I have been unable to satisfy myself, in any one of the cases which have been brought forward in evidence, that an abscess or the contents of a cyst had escaped into the ventricle. Abscesses, no doubt, do form at the apex, but their tendency is to burst into the pericardium rather than into the endocardium. Of the other cases of cysts, I have little doubt that they are instances of puriform softening of thrombi which have formed at the apex—no unusual place for such to be found.

Some of the cases of acute abscess of the heart have been seen in the undefended space, and these, there can be little doubt, are instances of the acute aneurysm of this spot, and they will be discussed under this heading a little later on. There is, indeed, an acute aneurysm described by Herzfelder, who had the authority of Rokitsky for describing it as due to an acute myocarditis; but there was no suppuration, the cardiac wall was only softened and discoloured.

The only case of aneurysm of traumatic origin that I can find is one described by Mühlig. The patient had been stabbed ten years before death in the region of the heart, and a scar led from the place of the wound to the apex of the right ventricle; here a large bulging of the wall had formed, which had all the characters of an ordinary aneurysm of the left ventricle formed by disease.

At this place we leave the aneurysms of the left ventricle. Of aneurysms of the other chambers of the heart there is but little to say. When we have consented to the statement that fibrous myocarditis is the chief cause of aneurysm, it will follow that aneurysm is but rarely seen elsewhere than in the left ventricle. Besides the one observation of traumatic aneurysm of the right ventricle, there are a few other cases known of aneurysm from disease. Quite as rare are cases of true aneurysm of the left auricle, those appearances which have been called by this name being mere dilatations of the whole auricle secondary to mitral constriction. Of aneurysm of the right auricle there is this one specimen, which I removed from the body of a patient who died at St. Bartholomew's Hospital; and there is also one case by Berthold, in which the aneurysm was so large that it penetrated the chest-wall, and formed a pulsating tumour outside the chest.

I will now turn to the aneurysms of the septa of the heart. A very rare instance, almost the only one on record, is to be seen here in Dr. Peacock's specimen of aneurysm of the septum of the auricles. Aneurysm of the muscular septum is nothing so rare, although not common, but it does not appear to differ greatly from aneurysms of any other part of the muscular wall. Then as to aneurysms of the undefended space.

It would seem to be still undetermined by whom the undefended space was first noticed. It was described by Albers in the phoca before 1805, and in 1818 some French



anatomists seem to have been quite familiar with it. Thurnam speaks of it in 1838 as well known, and Peacock in 1846 uses the words "undefended space" without any introduction of the term. Despite a few unimportant observations of defective septum early in the present century, aneurysm of the undefended space was little noticed until Thurnam drew attention to the possibilities of such a morbid appearance.

He says:—"It is well known to anatomists that the highest part of the septum, which occupies the angle between the posterior and right aortic valves, and which in some instances of congenital malformation is deficient, is in the human subject formed not of muscular fibres, but simply of the endocardium of the right and left ventricles, almost in apposition, and strengthened only by the interposition of a little fibrous tissue continuous with that of the aorta. . . . In many ruminant animals this point is well secured by an ossous plate, but in man, as a comparatively weak spot, it is perhaps probable that occasionally it may become the seat of aneurysmal dilatation." Later on, in the same paper, Thurnam describes this specimen in the Museum of the Royal College of Surgeons, which is undoubtedly a preparation of aneurysm of the undefended space; he says he had discarded the opinion that it was not congenital. Individual cases were described soon after by Peacock, Todd, and Pereira; Dietrich of Prague doing good service by showing how often the undefended space was the seat of disease. Yet any continuous study of the aneurysms of this space can hardly be said to have been made until Pelvet published his monograph. In this he insisted upon endocarditis as the sole cause of aneurysm of the undefended space; while Rokitsky, some ten years after, in his work on the imperfect septa of the heart, fully allows of congenital weakness as a cause of aneurysm. I would remark that, at the same time as Rokitsky's book was published, and certainly without any knowledge of it, I showed a specimen to the Pathological Society, in which it seemed clear that the aneurysm had a congenital origin, and I asserted that Pelvet had been too exclusive in assigning acute endocarditis as the cause of all.

I may now point out that these aneurysms possess a character in common with aneurysms of the muscular septa, which is that the bulging takes place in accordance with the greatest pressure: thus the bulging is always from the left to the right side of the heart; the concave surface being on the left side, the convex on the right.

Aneurysms of the undefended space must, I think, be divided into two kinds—one which owes its origin to some congenital defect of the undefended space; the other due to acute endocarditis, or its consequences. The one may be called congenital; the other acute. The congenital aneurysm is usually limited in size by the boundaries of the undefended space itself; it follows the same anatomical lines as the undefended space. Thus its size rarely exceeds half a walnut; the sac is commonly thin, translucent, and smooth, though occasionally the inner surface shows irregularities. In one of my own cases and in Zahn's there were lines crossing the sac, arranged like the *musculi pectinati* of the right auricle; and in one of Rokitsky's cases these were more pronounced, and were like septa incompletely dividing the sac. As a rule the sac has no fibrinous contents, unlike the acute aneurism. The shape of the mouth of the sac is commonly rounded, sometimes triangular, thus preserving the rough outline of the undefended space. The whole of this space need not form part of the aneurysm. In two of Rokitsky's cases only the anterior half was involved, and in a third only the anterior two-thirds.

On the right side of the undefended space it is usually divided into two by the ring of the tricuspid; thus the upper part is in the right auricle, the lower in the right ventricle. Or the right side of the undefended space may be wholly in the right auricle, or wholly in the right ventricle. The same rules govern the disposition of the right side of the congenital aneurysm. The sac may be wholly above or wholly below the tricuspid ring. It may be divided into two sacs—a point which is particularly described in the late Dr. Pearson Irvine's case—or it may be divided still more: into three, as in Rokitsky's case, or four, as in Pereira's and Thurnam's. In Reinhard's two cases there were also signs on the sacs of further secondary dilatations.

I have lately come across a very interesting case, taken from a patient of Dr. Dickinson's, by whose courtesy I am

allowed to speak of it here. The aneurysm has pointed at the level of the tricuspid ring, thus separating the laminae of the tricuspid valve, opening them up, so that the sac appears to burrow in the very substance of the tricuspid valve itself.

As a rule, there is nothing in the hearts in which congenital aneurysms are found to lead to the belief that an acute endocarditis was in progress just before the patient's death; though, of course, an acute endocarditis may take place in a heart affected with congenital aneurysm, as in Dr. Peacock's case.

There is nothing remarkable about the age or sex of those affected with congenital aneurysm, nor in the diseases which cause their death.

On the other hand, the acute aneurysm which arises from endocarditis is often concealed, when first the heart is opened, by the vegetations which fill the mouth of the aorta. The aortic valves are covered with these growths; having been much injured by the violence of the endocarditis, they are often separated from their attachments to the aorta, and long bridges hang down into the ventricle, to the friction of which against the wall or the undefended space it is thought that the aneurysm may in some cases be due. The opening into the aneurysm is irregular and ragged (though in Rokitsky's sixth case the border was remarkably rounded and smooth), its shape and size uncertain, its contents clots, stratified fibrine, or half fluid, or undergoing the puriform change; the walls ragged, and the muscular part of the septum involved in the destructive inflammation. The process which forms the aneurysm undermines the tissues of the heart, and thus at each contraction of the ventricle the blood is further forced into the septum. Though it is true that the acute aneurysm often does project upon the tricuspid just where the congenital aneurysm does, yet the acute aneurysm often burrows amongst the structures of the heart in other directions. In Peyrot's case the aneurysm burrowed in two ways: one opening into the right auricle through the auricular septum, the other into the left auricle; in Peacock's last case, in Lombard's and Shillito's cases, there was also an opening into the left auricle. The same thing happened in Barbeau-Dubourg's case, but here there was a second tunnel, opening between the aorta and pulmonary artery. In Jaccoud's the opening was between the two auricles and the aorta; and in several others the aneurysm has reached the surface of the pericardium.

These acute aneurysms have sometimes been attributed to the effects of friction. So long ago as 1868 Dr. Moxon drew the attention of the Pathological Society to the erosions which might be caused by the friction of long vegetations hanging to the valves of the aorta. Ponfick, later on, took up the same idea, and thought that friction might lead to the perforation of the undefended space and a fistulous opening.

Closely akin to this subject of acute aneurysm of the undefended space is the subject of valvular aneurysm. Morand, in 1729, described an aneurysm of the mitral valve; but it was not, as far as we know, until 1812 that Laennec and Fizeau described another. Cruveilhier shortly spoke of a third specimen in 1829, and in 1850 gave the name of hernia to these appearances; and Thurnam gave details in 1838 of a case taken from a soldier who had died suddenly in Fort Pitt in 1812. This observer would also seem to have been the first to describe aneurysm of the aortic valves, though he was followed in a few months by Sir Dominic Corrigan, and shortly after by Bouillaud.

Few writers have dealt at length with valvular aneurysms. In 1843, Loebl devoted a few pages to the examination of the six or eight cases then on record. In 1873, Jaster, and in 1881, Laurand, wrote their theses on this subject; but Biach may be said to have been the first, even if we remember Pelvet's work, who attempted a serious study of this lesion. To his essay, which appeared in 1878, I am much indebted. It contains full details of many recorded cases which either cannot be seen in this country, or are only to be read in meagre abstracts.

Biach was able to collect 46 cases, and, by adding those which have been published since or were unknown to him, a sum of 90 has been added up, of which 44 were cases of aortic, and 43 of mitral, aneurysm; while in 3 cases there was aneurysm both of the aortic and mitral valves. These numbers are in marked contrast to those of earlier observers, who have nearly all found mitral aneurysms far



more common than aortic. Pelvet gives 16 as the number for the mitral, and 7 for the aortic. Biach, 24 for the mitral, 18 for the aortic valves. If we may trust the outcome of a larger number of figures, the aortic and mitral are about equally prone to aneurysm.

But it is quite otherwise with the right and left sides of the heart. The right side very rarely, if ever, shows any aneurysms of the valves. It has often been said that instances are known of tricuspid valvular aneurysm. Doubtless this is due to a misunderstanding of Thurnam's specimen, which is merely an aneurysm of the undefended space opening up the tricuspid valve, and causing dilatation in its substance. The same explanation holds of Biach's thirty-eighth and thirty-ninth cases.

It is somewhat different with the pulmonary valves. Buhl has described a museum specimen in which aneurysms were found on every sigmoid valve, pulmonary or aortic. And in Biach's nineteenth case there were small sacs on the posterior valve projecting into the ventricle.

An excellent reason for the rarity of aneurysms on the right side of the heart is given when it is said that valvular aneurysms are almost invariably due to endocarditis. It is one of the commonplaces of pathology that in extra-uterine life endocarditis is confined to the left side of the heart, so that valvular aneurysms will in like manner be confined to the same side.

It may be disputed whether there be anything *sui generis* in the endocarditis which is followed by the formation of aneurysms; but it is hardly possible to decide this question from the materials now before us. Those who have recorded cases of valvular aneurysms have not often thought it worth their while to go into many details of ætiology. For instance, out of the 90 cases which I have collected, no information, negative or positive, as to rheumatism, is given in 47. In 15 (2 of whom had a rheumatic parent) rheumatism is denied at any time in the history of the patient; while in the remaining 18 the patient suffered from rheumatic fever during the time that he was under observation, or before this.

Of syphilis we have less information than of rheumatism. In only 3 of the cases is syphilis affirmed (2 of my own and 1 of Dr. Osler's). In 5 others the business of the patient (soldier or sailor) may lead some to assert that syphilis must have been contracted. In 2 scars on the liver were seen, in one case attributed to infarctions. Other signs of syphilis are not spoken of. It seems somewhat strange that so little heed should have been given to syphilis as a possible cause of aneurysm, when we consider the great authorities who have set down syphilis as a cause of all valvular vegetations.

So long ago as 1862, Heschl pointed out the coincidence of disease of the aortic orifice with pneumonia, especially of a suppurative pneumonia; quite lately, Dr. Osler has published a series of cases in which infectious or malignant endocarditis was associated in every case with pneumonia. In five cases of aortic valvular aneurysm, pneumonia is recorded. Valvular aneurysm is also recorded in about half a dozen cases of puerperal endocarditis.

With Heschl I feel inclined to divide valvular aneurysms into true and false—into the acute and chronic. A peculiarly virulent or acute endocarditis does not in every case seem needful for the production of a valvular aneurysm. In June last a woman died suddenly, just after I had admitted her into St. Bartholomew's Hospital, and aneurysm was found on one of the aortic valves, the endocardium on both sides clothing the sac without any solution of continuity or growth of vegetations.

That these aneurysms are caused by the pressure of the blood was long ago pointed out by Laennec, and of the formation of the aneurysm the best explanation seems to be as follows:—Some part of the valve gives way, most commonly the endocardium, from ulceration, friction, or some other cause. At this point the valve is, of course, weakened, and unable to resist the force of the blood. It follows that the valve bulges at the weakened spot, and bulges in a direction which is the same as the direction of the pressure of the blood. For example, if the aneurysm be on the mitral valve, the convexity or bulged part is on the auricular surface of the valve. If the aneurysm be on the aortic valves, the aneurysm points into the ventricle. Thus far all are agreed. But the question now arises, whether it be the endocardium on one particular side of the valve which must be ulcerated

to form the aneurysm. Dr. Joseph Coats has lately insisted that it is one side of the valve only which is at fault. His view is this: Endocarditis is more common on the ventricular side of the aortic flaps, and it is this which is weakened. The fall of the blood, therefore, against the valve tends to push the fibrous or elastic middle tissue of the valve, followed by the endocardium lining the aortic side, out through the weakened spot into the ventricle, and thus to form the aneurysmal sac. I do not know if Dr. Coats intend his proposition to be a general one; but while gladly admitting that it is an explanation of certain cases of aneurysm (especially on the aortic valves), I do not myself think that it applies in all cases. I have seen specimens in which the absence of all endocarditis on the bulged side, and the smooth continuous covering of endocardium over the aneurysm, forbade the notion that the process had begun on the bulged side. In support of this statement, besides my own cases, I may refer to those of Dr. Andrew, Dr. Walter Smith, and Dr. Wilks, where the endocardium on the ventricular side of the mitral was sharply cut, or there was a smooth continuous endocardium covering the sac on the auricular surface of the valve.

I am thus inclined to believe that destruction of the endocardium on either side of the valve may lead to the formation of valvular aneurysms, and that Dr. Coats' explanation may often apply to the aortic valves; the other, to the mitral.

Endocarditis, acute and chronic, is the chief, I had almost said the sole, cause of valvular aneurysms. I will now allude to a cause which is not endocarditis itself, but a consequence of endocarditis—friction from long vegetations dependent from other parts of the heart. I have already spoken of friction as a cause of acute aneurysm of the undefended space; and the same long vegetations may hang from the aortic valves and rub against the ventricular surface of the mitral, and in this way lead to aneurysm. Dr. Sidney Coupland thinks that in his case there was evidence of such a process.

If the aneurysm last long enough, it usually becomes perforated, and the seat of the perforation is usually at the apex of the aneurysm. This last phenomenon is no doubt due to a continuation of the same destructive pressure of the blood that first caused the dilatation. Not unfrequently the valve becomes perforated in two places, or there may be three openings, as in Homolles', or several, as in Dr. Lawrence Humphry's.

There are some few cases in which the disposition of the sac on the valve has not corresponded with the law that the sac must project in the same direction as the blood-pressure. Cases of this kind have been recorded by Dr. Walshe, Dr. Cayley, and Marchant. Dr. Walshe finds his case hard to explain, and even so accomplished a morbid anatomist as Dr. Cayley refuses to give an opinion whether in his case the lesion was congenital or rheumatic. Suppose some hæmorrhage (such have been described of late) to take place into the auricular aspect of the mitral and burst; an accident like this might lay the foundation of an aneurysmal sac bulging towards the ventricle.

The shape of these valvular aneurysms tends to the round; after it have lasted some time it becomes longer. On the aortic valves they have been compared by Bouillaud to swallows' nests, but, as the aortic valves themselves are of this shape, the comparison is superfluous. When prolonged they are like the end of a finger of a glove or a sugar-loaf. I have never seen them as pouches with narrow necks at their place of attachment, though such have been described by Pelvet and Dr. Joseph Coats. These remarks apply exclusively to the aortic valves; on the mitral, the aneurysms are elevations, raised, rounded, or slightly prolonged swellings, but I do not know of an example in which they have become like the finger of a glove or pedunculated.

As to the size of these aneurysms, they vary, from being just large enough to be perceptible eminences on the valve, to the size of—on the mitral, a large walnut, as in Thurnam's and Dr. Wilks' cases; and on the aortic, to the size of a large marble, as in one of Dr. Osler's cases.

One sigmoid or one flap of the mitral not uncommonly shows two aneurysms at the same time. Cruveilhier speaks of three or four on the same valve.

Is any one flap of the aortic or mitral valves more prone to aneurysms than its fellows? As to the mitral, it might be looked for that the large flap, against which all the



pressure of the blood is directed, should be aneurysmal rather than the small. And this is really the case. Out of forty-three cases on record, the valves were distinguished in thirty-two. In twenty-eight of these the aneurysm has been seated on the large, aortic, or anterior flap of the mitral (if we take these adjectives as meaning the same), and in one case on the inner, and in another on the *Septum-gipfels* of the mitral (which I judge to be the same as the large flap). There remain two cases in which the small flap showed an aneurysm; one of my own, and Dr. Wilks' case, in which latter the swelling was on the "posterior" curtain, and was the size of a walnut.

If there be a reason for a preference of the larger flap of the mitral, yet there would appear, beforehand, no good reason for any preference of one of the three flaps of the aortic valves. Yet the posterior valve is certainly marked out, although in no such decided way as the large flap of the mitral. There are thirty-five cases in which the name of the valve is given, and in twenty-five of these the posterior valve (right posterior of Sibson) was aneurysmal; and in thirteen of these the posterior valve was the only one aneurysmal. Aneurysms were seen on the right valve only (right anterior of Sibson) three times; on the left (left posterior) twice, without aneurysms on the other valves. The posterior and right showed aneurysms together in eight cases, and all three valves were aneurysmal in four cases. It may be noted that the posterior and right valves, which are so often aneurysmal, are near neighbours of the undefended space which is so specially subject to endocarditis.

Aneurysms seem to be not very unfrequent in fused aortic valves. Six of such cases have been recorded.

As to sex, men show a marked preponderance over women. There are thirty men with mitral aneurysms against eight women, and twenty-nine men with aortic valvular aneurysms against eleven women. As to age, the greatest number is seen between twenty and forty.

I will now devote a few words to the consideration of aneurysms of the coronary arteries. In 1870, while I was examining the body of a boy seven years old, who had died of meningitis, I came across three small bodies on the back of the heart, which turned out to be aneurysms of the coronary artery. Dr. Gee published an account of them in the *St. Bartholomew's Hospital Reports*. Although it is sometimes said that Hedlund was the first to describe these aneurysms, yet I find a record of dilatation of the coronary artery in Morgagni ("De Sedibus," xxvii., sec. 28). One of the coronary arteries was dilated to the size of the carotid. Cases were afterwards recorded by Mérat in 1813, Hedlund in 1816, and Peste in 1843. Dr. Peacock seems to have been the first in this country to describe a case.

Excluding all cases of dilatation of the origin of the coronary arteries as they arise out of the sinus of Valsalva, and of aneurysms which are merely part of multiple aneurysms all over the body, there remain about thirteen cases on record. Of these the sex is recorded in twelve, and in eleven it was male. As to age, my case is the youngest, the boy being but seven years old. Five of all the cases whose age is known were between twenty and thirty, so that one-half of the cases were below thirty. The remainder were forty, fifty-one, fifty-nine, sixty, sixty-three, and seventy-seven years of age.

In six out of the thirteen the cause of death was rupture of the aneurysm. Thus death was caused by rupture in nearly one-half.

In four out of the thirteen the aneurysms were multiple—that is, not less than three. In my own case and Dr. John W. Ogle's there were three, in Heuse's five, while in Dr. Bristowe's case the aneurysms were numerous, nodules being seen on the coronary arteries in size from peas to tares. This case at once brings to mind the multiple aneurysms, not only of the coronary arteries, but of the whole of the body, which have been described, and of which a case appears in the current number of the *Archives de Physiologie*. They resemble the coronary aneurysm in all the patients being men, and, with the exception of the case just named, young men under thirty; also, with one exception, the patients were known to be syphilitic. Pelletan, early in this century, affirmed that the cause of the "aneurysmal diathesis" was syphilis, but he owns that he had no evidence for his speculation, and even now it would be rash to affirm that the real cause of these little dilatations is syphilis. In the little boy of seven there was nothing that pointed to

acquired syphilis. One might also compare these miliary aneurysms of the heart to the miliary aneurysms seen in the brain, and which are limited to one organ, and have a tendency to rupture.

Nearly twenty years ago, Dr. John W. Ogle explained his case of aneurysms of the coronary artery by following up the theory which he had first published in 1857, that aneurysm in young persons might often be caused by emboli. This same idea has been expressed by Mr. Tufnell, Mr. Holmes, Dr. Church, and last of all by Ponfick. The coronary arteries, however, are singularly exempt from emboli, and there does not seem evidence that in all cases the sources of emboli were present.

## AN ADDRESS

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### THE STRUCTURE OF THE ANIMAL CELL.

THE subject which I have selected to bring before you in this section is the structure of the animal cells. To physiologists and pathologists this is a subject of so general an interest as to need no apology for its introduction. Especially does this seem an appropriate time and occasion for its review, by reason of the fact that there is no single subject in anatomical or physiological science which has absorbed of late more attention than this one, and moreover because it is one in which I myself, who have been honoured by being selected to preside on this occasion, have for many years taken a particular interest.

In the first place, let us consider the views which were formerly held regarding the structure of the animal cell. The earliest notion was that expressed by its name—a hollow space enclosed by firm walls. The space was occupied by fluid, which might contain granules. Schwann ("Microscopical Researches," 1839; Sydenham Society's translation, 1847) succeeded in crushing a young cartilage-cell; it "suddenly shrank together, whilst a clear fluid streamed out, thus proving the contents of the cell to be fluid and transparent." The wall is essential to the idea of the cell; even the lymph- and pus-corpuscles have an envelope or cell-membrane enclosing the cell-contents. Mucus-corpuscles are exceptional in so far as that "an especial cell-membrane cannot be distinguished" in them; it may, nevertheless, still exist. The nucleus is a simple vesicle filled with fluid, with, at the most, one or more solid particles—nucleoli—suspended in the fluid; it is not essential to the idea of a cell, or at least may disappear even from living succulent cells; it is often adherent to the cell-wall. This notion of the animal cell is an extension of that which had been already formed from observations on the vegetable cell; no independent line is taken. The facts regarding the plant-cell seem clear enough: the elements are large and conspicuous; what more likely than that the animal cell should possess the same structure?

The most conspicuous fact in this idea of the cell is the importance of the cell-membrane. This did not serve merely to enclose the fluid contents of the cell; it had a direct relation to nutrition and growth. Kölliker ("Manual of Human Histology," 1852; Sydenham Society's translation, 1853) expressly declares that "the power of growth is not simply innate in every organic membrane, manifesting itself when sufficient formative material is offered, but requires special conditions, which are only realised by the cell-membrane." Further, "While the membranes grow by the attraction of material from the surrounding fluid by virtue of their priority, they allow substances to penetrate into their interior. This filling, however, does not take place by the cells admitting every kind of matter indiscriminately, but they . . . take up one constituent (of the cytoblastema) and reject another." And this selection is the property of the cell-membranes, for a little further on we read, "The cell-membranes do not act as mere filters, but allow one substance or another to permeate them, according to their



chemical constitution, the constitution of the fluid which imbues them, their condition of aggregation, and their thickness." This is not a mere process of endosmosis, although this also "must be taken into account as a condition in the absorptive action of cells, though hitherto it has been too freely appealed to, and cells have been too often considered as vesicles provided with merely indifferent porous membranes."

Given such structural conditions—a vesicle filled with fluid, and enclosed by a structureless membrane—it was not easy to understand how changes were brought about in the cell-contents, although the occurrence of such changes was not to be ignored. Schwann assumed the existence of a special force—metabolic force—capable of producing such changes; but this assumption could not, of course, advance the explanation. Others were disposed to endue the nucleus with a kind of catalytic power; others, the cell-membrane. There was an obvious difficulty in comprehending how this seemingly inert bag of fluid could be endowed in so remarkable a manner as to minister to development and growth, to nutrition, secretion, tissue-formation, and even to contractility and motion.(a)

The establishment of two important facts led eventually to the overthrow of the vesicular theory of cell-structure. One was the existence of cells without an envelope. It was admitted, even by Schwann, and by most observers after him, that in some cells, pale blood-corpuscles amongst the number, it was not possible to demonstrate the existence of a cell-membrane. Its existence in them was merely assumed. The second fact was the exhibition by cells of those peculiar and indefinite changes of shape which are known under the name of "amoeboid movements."(b)

It had, moreover, by this time been shown by the botanists that the vegetable cell is something more than a simple cellulose vesicle with fluid contents and a nucleus. It was admitted that the nucleus was embedded in a clump of soft substance, clear and transparent indeed, but yet somewhat more solid than the rest of the cell-contents; that a layer of similar substance lined the cellulose wall, and that threads of it might here and there cross the cell-cavity. V. Mohl ("Vermischte Schriften," 1845) termed this substance "protoplasm"; the name was afterwards extended to the substance of the animal cell, and the properties which had before been supposed inherent in the cell-membranes began to be transferred to it.

Histologists were, therefore, fully prepared to receive a new definition of the animal cell when, in 1861, Max Schultze ("Ueber Muskelkörperchen u. das, was man eine Zelle zu nennen habe," *Arch. f. Anat.*, 1861) clearly showed that the vesicular theory could no longer be upheld, but must be replaced by a totally different idea. It was demonstrable that, in many instances, no membrane exists; it was also demonstrable that the cell substance is in most cases not fluid, but composed of the soft contractile substance already known as protoplasm or sarcode. A clump of protoplasm enclosing a nucleus is for the future to be looked upon as sufficient to constitute a cell. There may, it is true, be a cell-membrane; there may be adventitious granules, globules, in the protoplasm; but these are accidental, not essential to the definition; they may, indeed, even interfere with some of the manifestations of vital activity which are otherwise exhibited by the protoplasm. The cells which, under the previous theory, were exceptional, are henceforth typical—the colourless blood-corpuscle, the embryonic cell; those which were most typical—cartilage-cells, epithelium-cells, cells of the chorda dorsalis—are specially modified; degenerated, some of them, with their activity reduced, or narrowed into the performance of a single function. The cell-membrane has had its day. Even when present, it is no longer re-

garded as of any functional importance. It renders the cells more inert, instead of more active; it prevents those amoeboid movements, those manifestations of contractility, whose importance is by this time completely acknowledged.

But what, after all, is this protoplasm, upon which the attention of biologists is now concentrated, which performs so many and such various functions, which is recognised as the living substance *par excellence*? A speck of jelly or slime; structureless—at least, not necessarily exhibiting any structure; homogeneous, except for the possible presence of granules of other material, or globules of fat or fluid embedded in it; unformed itself, yet capable of forming all the tissues, all the secretions, all the products of the animal body (Beale). Its chemical composition but little known; certainly a large proportion of water; next to this, a proteid substance or substances, inorganic salts, protagon, glycogen, fatty and other matters also found; but who knows whether essential or accidental? The molecular constitution only guessed at, and that probably badly. It is true, we have advanced a step in our definitions; but are we nearer an explanation of the manner in which these wondrous phenomena of growth, of chemical metamorphosis, of movement and contractility, are brought about? I think that no one would venture upon an affirmative answer.

As for the nucleus and nucleolus, these occupy much the same position in this scheme that they did in the previous one. It is true we no longer hear of the "action of the nucleus" upon the cell-contents. Its special reproductive function has long since been fully recognised; in respect of its structure, little or no advance has been made. The second picture of cell-structure which I have presented to you is the one with which we are most of us familiar: the speck of protoplasm enclosing a nucleus, devoid of structure, but capable of varied functions. I will now invite you to consider a third picture, which has been gradually developing during recent years, and which at the present moment bids fair to supplant the other.

Imagine a round, soft sponge, the horny skeleton replaced by soft contractile substance, the interstices occupied by fluid, a spherical vesicle embedded at one part in like substance, and you have at once an idea of the most modern view of cell-structure. Suppose, further, the network or sponge-work capable of contracting so as to express fluid from the meshes, or expanding so as to admit more fluid into them; suppose granules of various kinds to be floating in this fluid, and to be moved from place to place within the cell by the currents caused by such contractions; suppose materials formed within, or imbibed by, the cell to accumulate in this interstitial fluid, ready, as in many secreting cells, to be discharged from the cell by the contraction of the network (in obedience to an excitation operating either directly upon the cell or indirectly through the nervous system); even suppose, in ciliated cells, rhythmic contractions of the network acting upon the bases of the cilia, which are prolonged into the cell, and in this way causing to-and-fro movements of the projecting cilia,—given this structure, combined with the contractile function, and, in a comparatively simple fashion, many of the phenomena of cell-activity can be explained.

But before we accept definitely this new theory of cell-structure, it behoves us thoroughly to examine the grounds upon which it is based. In the first place, it may be pointed out that the view is not so novel as may, perhaps, be supposed. Stricker, in his handbook (article on "The Cell," p. 20, 1871), devotes a page to its discussion, for the possibility of such a structure had already, even then, been mooted for some time, and that by physiologists of the highest eminence.

Stricker writes thus: "Brücke ('Ueber d. sog. Molecularbewegungen') ascribes to the salivary corpuscles a system of spaces, in which an intracellular fluid is contained. He claims the same for the protoplasm of the vegetable cells in the hairs of the stinging-nettle. Heidenhain ('Studien des Physiol. Instituts in Breslau, II.') agrees with this view, and further suggests that the intracellular fluid is moved by the protoplasm in the same way as the intestinal contents by the peristaltic movements of the intestinal wall." The considerable space, within many vegetable cells, occupied by fluid, across which threads of protoplasms here and there pass, is not here meant, for it is expressly stated that "this cell-fluid is not to be confounded with that which is assumed to exist in the interstices of the protoplasm." Further: "In

(a) The contractions which had up to this time been observed in protozoa, or in some cells of metazoa, were very generally referred to the cell-membranes. It was Donders who first ascribed contractility to the cell-contents instead of to the cell-membranes, but Leydig had long before contended for the importance of the cell-contents relatively to the cell-membrane.

(b) These were first described in the pale blood-corpuscle by Wharton Jones (*Phil. Trans.*, 1846), but it was not immediately that the importance of his observation was recognised. Even after several years the cell-membrane still held its own: so that, in 1853, Busk and Huxley (translation of Kölliker's "Manual," note on page 4), alluding to this very case, write: "It is certainly the membrane which contracts in these cases, for it pushes out processes which are only subsequently filled by the granular contents." But the membrane here spoken of is evidently something very different from the mere fibre which had previously been assumed to enclose the contents of the corpuscle.



the case of the flask-shaped glands of the frog's eyelid, it is seen that the bulk of the gland-cells undergoes considerable variation. At times the cells project so far into the lumen as to reduce this to the smallest possible compass; at other times they are so contracted as to cause the gland to resemble a bladder merely lined with epithelium-cells. It is not easy to explain this change, otherwise than by supposing that the gland-cells have, by contracting, squeezed fluid out of their substance"—an idea which has later been still further developed by Stricker, who, in conjunction with Spina, has been able actually to observe the contractions of the cells which were then only assumed.

Although, therefore, this modern view of the structure of protoplasm, as a network or sponge-work with fluid interstices, is not altogether novel, yet its advocates now claim for it an entirely different standing. Then it was merely a theoretical assumption, now it claims to rest upon observed facts. Let us see, then, for ourselves what these facts really are, and what they really prove.

In cells of the most various kinds—ova, pale blood-corpuscles, epithelium cells, nerve cells, vegetable cells, which have been subjected to the action of hardening fluids, such as alcohol, bichromate of potash, picric acid, and especially chromic acid, it is easy to convince one's self of the presence in the cell-substance of a fine and closely interlaced network of fibrils. This fact, which was first distinctly pointed out by Frommann, and independently by Heitzmann, was soon supported by the extensive observations of Klein, and by the more special works of Arnold, Schwalbe, Flemming, and other histologists. Arguing, then, from this alone—viz., the appearance of protoplasm after it has been subjected to the influence of hardening reagents, we should have no hesitation in ascribing to that substance the sponge-like structure which the theory we are considering assumes that it possesses.

But, before coming to a decision upon this subject, it behoves us to inquire how far we are justified in assuming that the structure which protoplasm exhibits after the action of reagents exists in the same protoplasm in the living and unaltered condition. It is also important to ascertain whether the reagents we are in the habit of employing are capable of themselves producing appearances such as those we have to deal with.

To reply first to the latter inquiry: it must be conceded that the hardening reagents which we employ are undoubtedly capable of producing in organic fluid and semi-fluid substances coagula, which, under conditions at present ill understood, may assume the form of networks. Unless, therefore, the intracellular networks which are observed are constant in appearance in the same cells, no matter what the hardening agent employed—constant, that is, in the general disposition of the fibrils,—the objection is undoubtedly open that the apparent structure may be the result of the action of the reagents. But if it can be shown that even in the fresh and living protoplasm there exist, although not perhaps distinctly visible, yet sufficient indications of the presence of such a network, this objection would, in a great degree, be invalidated; for it is conceivable, indeed certain, that different reagents may produce somewhat different changes in a pre-existent network, and in this way give it somewhat of a different character. Practically, then, the decision of the question ultimately turns upon the existence or non-existence of this structure in living protoplasm, especially in the protoplasm of cells, which exhibit it distinctly after the action of reagents.

For the special study of this question it will, perhaps, be well to select two or three specific examples, and we may choose for the purpose cells of such widely different appearance and functions as a colourless blood-corpuscle, a cartilage-cell, and a glandular epithelium-cell, all of which are admitted to show a reticular cell-structure in hardened preparations. Let us see, then, what is observable in them in the living condition.(c)

The colourless blood-corpuscle of the newt or salamander is the easiest of cells to observe in the living state. Thus

seen, its protoplasm is clear; and, when the corpuscle is flattened against the cover-glass, it is so completely exposed to view that, with the carefully constructed objectives which are now made, it is difficult to believe that any indications of structure which it might present would remain wholly undetected. Under these conditions, the nucleus is obvious, and the reticular structure of the nucleus is evident enough. But, in the protoplasm itself, what can be seen? In some corpuscles, a number of distinct refracting granules, grouped around the nucleus, sometimes on one side of this. The granules are embedded in the clear protoplasm; they move from place to place within the cell, gliding as a group from one part to another, flowing into previously clear protrusions of the cell, to all appearance freely, and in no way seeming to encounter obstacles. In other corpuscles, clear spaces, vacuoles, less refracting than the protoplasm which encloses them, occupied by fluid—one, two, or more in the cell—occurring in the granular corpuscles as well as in others. In some corpuscles are many such vacuoles; in some, indeed, the protoplasm is crowded with them; they are of varying size; they appear to increase in number if the preparation be kept for a time—can, in fact, be seen in process of formation, produced by enclosure of fluid at the periphery of the corpuscle. When thus numerous, the protoplasm, in optical section, has all the appearance of a network; but the meshes are not like those of a sponge; they do not intercommunicate; they are isolated spaces, filled by clear drops of fluid, embedded in an otherwise continuous and homogeneous protoplasm.

To take, now, the second example, that of the cartilage-cell. This, which in the hardened tissue shows a fine network in its protoplasm (Frommann), has been carefully observed in the living state by Flemming, with special reference to this very question (of the pre-existence of the intracellular network). Hear, therefore, what Flemming has to tell us regarding the appearance of the living cartilage-cell—his object the gill-lamina of the salamander tadpole, his objective the one-eighteenth oil-immersion of Zeiss, the observer himself conspicuous for his keenness of observation; witness the result of his work on the division of nuclei. This is what he says regarding it ("Zell-substanz," page 22, 1882): "That the filaments can be seen to be united together into a network, so that there is a real connexion of the filaments with the peripheral part of the nucleus . . . I am compelled, in spite of Frommann's positive assertions to the contrary, to deny." The filaments here spoken of are peculiar convoluted threads of variable length, which, as well as fatty and other granules, can be seen suspended in the otherwise clear substance of the cell. Their nature will be referred to later.

Lastly, let us go to the glandular epithelium-cell. Examined in the resting (fasting) condition, and with a good objective, nothing can be more distinct than the reticular structure of the epithelium-cells of the parotid in sections of the hardened tissue. A fine close and uniform network with clear interstices—this is the apparent structure of the protoplasm. But turn to the living cell. Langley has shown us how, in the thin outlying parts of the gland in the rabbit, we may examine the cells, the blood still circulating in the vessels of the acinus, the normal conditions almost perfectly preserved. And what is here to be seen? Each cell packed full of granules, distinct strongly refracting granules, embedded in clear protoplasm—distinct granules, certainly not merely nodes of a network. Crush a cell in serum, and observe the granules set free. And yet, in the cell hardened in alcohol or chromic acid, no sign of granules, their places taken by clear spaces, the protoplasm between them and enclosing them in the form of a fine network.(d)

But, it may be asked, may not this protoplasm, itself between the vacuoles in the case of the pale blood-corpuscle, and between the granules in the case of the epithelium-cell, possess a yet fine reticular structure? Such a possibility cannot be denied. Theoretically, it may even be probable; all that can be said is, that in the living condition no such structure is visible.

that this coagulation is not accompanied by the formation of fibrils like those which are exuded from blood-plasma in the form of fibrin, so that, even if we are able to observe such fibrils, without the action of reagents, in a cell, the protoplasm of which is already coagulated, it does not follow that they are also present in the living condition.

(d) Compare Flemming ("Zell-substanz," etc., page 42). Flemming has gone wrong in this instance, in consequence of relying solely on hardened preparations.

(c) The necessity of insisting upon the examination of a cell in an absolutely normal living condition in order to determine a point of this nature, must be evident from the known fact that protoplasm, which is semi-fluid during life, undergoes, immediately after death, a kind of coagulation analogous to that which occurs in muscle and in blood-plasma. It is in consequence of this coagulation that a tissue like that of the liver, which is mainly composed of protoplasmic cells, becomes much firmer and more rigid after death than it was during life. We cannot certainly say



It is, however, to be distinctly understood that although this must be stated regarding the structure of the protoplasm of animal cells in general, and although doubt still rests on the existence of a constant and definite structure in all protoplasm indiscriminately, this doubt is by no means to be extended to individual cases. In cells which have become highly specialised as to function there is every probability that some specialisation of structure will ere long become manifest. And such we accordingly find. Without unnecessarily multiplying examples, I may instance the fibrillation of muscular fibres, both voluntary and involuntary, the fibrillation of nerve-cells and fibres, that of many ciliated cells, of some secreting cells, and even the convoluted filaments in the cartilage-cell already referred to. Of the pre-existence of these structures there is no reasonable doubt, but they are not of general occurrence, and it is neither possible nor permissible to infer from them a definite and uniform structure for all protoplasm.

The structure of the nucleus has been no less an object of recent investigation than that of the rest of the cell, but there is a much greater agreement amongst histologists with regard to it; and its consideration need not detain us so long as that of the cell-protoplasm. The original idea of the nucleus was a spherical vesicle, bounded by a definite membrane. The membrane encloses a fluid, and separates this nuclear fluid from the fluid contents of the cell.(c) In the nucleus fluid there are discovered one or more round solid particles—nucleoli. Therefore a cell consists of a nucleolus in the centre, outside this a membrane forming and enclosing the nucleus, outside this another membrane enclosing the cell-contents and forming the cell.

The original idea of the structure of the nucleus persists long after the original idea of the structure of the cell has been superseded. The nucleus of the protoplasmic cell of Max Schultze is practically identical with the nucleus of the vesicular cell of Schwann. If anything, the importance of the nucleus has receded. The original nucleus could exert an action upon the cell-contents. Now it is doubtful whether the changes which the nucleus can be observed to undergo may not really be passive, may not really be produced by the amoeboid activity of the cell-protoplasm. It is only quite lately that the nucleus has reassumed its pristine importance; that the independence of its changes has been recognised, can in fact not fail to be acknowledged. Its function is unquestionable; it initiates, presides over, the reproduction of the cell; in some cases is concerned in promoting its rejuvenescence. We are no longer content to accept as the typical structure of the nucleus of a living active cell an inert vesicle, enclosing a fluid and one or more solid particles. We can recognise in nearly all cases a further structure—a network, coarser or finer, open or close, of threads which pervade the nucleus, and unite the nucleoli to the enclosing membrane. There is no doubt as to the existence of this intranuclear cell. It is even more constant than the nucleoli, for the latter may not always be visible; the network of filaments is seldom absent. First noticed in certain specialised cells, and judged peculiar to them, it is now recognised in cells of every kind, ova, nerve-cells, muscular cells, epithelium-cells, colourless blood-corpuscles, coloured blood-corpuscles of ovipara. As in so many other instances, one is astonished that so obvious a structure should have remained so long obscure.

With this network the nucleoli are connected; indeed, many particles which were before described as nucleoli are now only recognised as thickenings of the network. The network is not inert; it alters from time to time, as do also the nucleoli; it is probably contractile: certainly changes of shape may sometimes be observed in the nucleus, both within the cell and when escaped from the ruptured cell. In division, moreover, the filaments and the whole substance of the nucleus undergo changes as rapid as remarkable. Altogether, it is clear that the nucleus is capable of a large amount of independent vital activity. What more natural, then, than to regard it as consisting of protoplasm in no essential point differing from the rest of the protoplasm of the cell? This view (indicated first by Beale, who included the nucleus and protoplasm of the cell together under the term "formative matter") has, in fact, been adopted by Frommann, Heitzmann, Klein, and Stricker

(c) Some of the older histologists regarded the nucleus as solid and homogeneous.

—histologists who were among the first to pave the way for the general recognition of the reticular structure of the nucleus. They bring the nucleus into absolute continuity with the protoplasm, its filaments prolonged into those of the protoplasm, its membrane little but a closer interlacement of the same filaments, the nucleoli only thickenings of the filaments. Throughout the whole cell-nucleus and cell-protoplasm is a continuous network of protoplasm. Apart altogether, however, from the reasonable doubt of the pre-existence of fibres in all cell-protoplasm, this conclusion is one which, in the face of the striking contrast of chemical nature (as shown by their behaviour to reagents and staining fluids) between nucleus and protoplasm, can in no way be upheld.(f)

Putting aside, then, this continuity with the cell-protoplasm, it is admitted that the typical nucleus is composed of the following parts:—(1) A nuclear membrane bounding it externally; (2) a network of fibres; (3) a nucleolus or nucleoli; (4) a clear substance filling the nucleus in the meshes of the network of fibres. 1, 2, and 3 agree, on the whole, chemically with one another, although optically they present differences; they differ entirely, both optically and chemically, from 4; they appear to be more solid, 4 more fluid; they are, therefore, grouped together under the name *nucleoplasm*, or *karyoplasm*, whilst the clear substance is termed the *nuclear juice*, or *matrix*. When a nucleus divides, all its karyoplasmic parts blend; the distinction between them is lost; they are transformed into a system of contorted fibres, embedded in clear matrix. These fibres undergo remarkable changes, apparently spontaneous, which result in their separation into two groups, and the reformation of the structure of a typical resting nucleus from each group. Into the details of these remarkable changes I do not propose here to enter; I refer to their occurrence only as showing the individuality, the independence of the nucleus. When we believed that a nucleus divided simply by undergoing a process of constriction into two, it was conceivable that the constriction might be produced, not by any exercise of spontaneity on the part of the nucleus, but by the presence of the surrounding protoplasm. Such a notion is no longer tenable; the nucleus possesses an independent activity, as well marked as that of the protoplasm itself.

It seems probable that we are on the eve of yet further discoveries with regard to the structure of the nucleus. It has, indeed, been shown by Balbiani that, in certain cells of chironomus larvæ, the nuclear filaments are transversely marked at short and regular intervals, as if made up of a succession of particles cohering together in series. And it may well happen that this proves a general feature in the structure of nucleoplasm, and that the changes which occur in division may be ultimately referred to re-arrangements of their constituent particles. It is even conceivable that we may some day gain an insight into the nature and mode of action of the forces which cause such re-arrangement, and even discover means to modify or restrain their action. No doubt, the idea is yet chimerical, but it is almost justified by the prodigious advantages which have of late been made in our knowledge of the structure and changes of the cell-nucleus.

It would appear, then, that the nucleus of the cell is not the structureless body which we, at one time, thought it; on the contrary, it has a manifest and complicated structure, which has not even yet been fully unravelled, and, in the performance of its function, it exhibits changes of structure which, until lately, had remained entirely unsuspected. Regarding the body of the cells, we must be less positive; that, in special cases, it is differentiated, is undoubted; that, in all cases, it is reticular, is not proved, although theoretical considerations render such a structure not improbable.

I think we should be cautious of accepting conclusions which, however much supported by theory, do not rest on the basis of incontrovertible facts. Some histologists and

(f) There is not even a probability that nuclei can be formed, *de novo*, out of protoplasm, or from anything but a pre-existing nucleus. The doctrine of free cell-formation, which originated in the days of Schleiden and Schwann, and which supposed the deposition of nuclei in a homogeneous blastema, and the formation of cell-substance around them, has long been given up as a general principle, although the new formation of nuclei, independently of pre-existing nuclei, has long lingered. It would seem, however, that it must now definitely be surrendered. All recent researches on cell-formation and multiplication point to the fact that the dictum of Virchow with regard to the cell must be extended to the nucleus: *Omnis nucleus a nucleo*.



pathologists would carry the reticular theory farther even than the limits of the cell. Continuing the protoplasmic network into the intercellular substance, they pervade all parts with it, binding together the separate cells of the organisms with a web, whose closely linked threads are finer than the finest gossamer, conveying the marvellous properties of protoplasm—its formative power, its chemical activities—to the most remote recesses of the organism. Inspired with enthusiasm for a new theory, they do not hesitate to carry it beyond the point which properly observed facts justify. We ourselves should have a care, lest, enticed by the facility with which certain phenomena seem to be explained, we follow too far along paths which lead away from the track of conscientious observation and just surmise.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

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(Continued from page 154.)

### CHOLERA ASIATICA MALIGNA.(a)

THE Cholera of Lower Bengal, of which I had more than twenty-seven years' experience, has been so fully and faithfully represented in works of great labour and research by several contemporaries of my own, that I shall not offer a description of its general characters which will be found amply detailed in the valuable monographs of John Macpherson ("Cholera in its Home," and "Annals of Cholera"), of Edward Goodeve (*Art. "Cholera" in Reynolds's "System of Medicine"*), and Charles Macnamara. I shall, therefore, only submit to my readers notes upon very important points which have received my special attention.

### CHOLERA A PERNICIOUS FEVER.

A great body of well-ascertained facts supports the position taken up by the College of Physicians, in their Nomenclature of Diseases, that Cholera is a Pernicious Fever. Many Indian observers have maintained this view, and careful study of disease in India goes far to confirm it. I have here placed before myself the duty of stating facts, not of forming theories, or of discussing the theories of others, except by showing how far well-ascertained facts uphold or are opposed to them. I do not consider that the present state of our knowledge permits others or myself to write dogmatically upon the perplexed question of the Cause of Cholera, but I am strongly led, by observation and reading, to side with the maintainers of the Fever doctrine.

In previous chapters I have described several forms of Pernicious Fever, which certainly have the appearance of forming a continuous chain of clear, intermediate etiological links between the Malarious Remittent of India and Asiatic Cholera. I will beg the reader to place the volumes (*Medical Times and Gazette*, vol. ii. for 1882 and vol. i. for 1883) before him, and to look back to these cases and observations as I shall now refer to them.

1. To me it appears that Allan Webb's cases of so-called "Hill Colic" (page 406, vol. i. for 1883), and my case of the Mohammedan in the following page, may be taken as forming the first links in this connective chain. Here we have the strongest expression of Algide Pernicious Fever, with intestinal lesion, but without Cholera stools; rapid death by nervous shock and blood-poisoning, with collapse as its main characteristic,—vitality failing almost suddenly under an overwhelming dose of a strong poison.

2. Next in order we have cases of well-marked and fully developed Remittent Fever, by no means rare in India, represented by Dr. Sutherland's case (vol. ii. for 1882, page

689), and by Mr. Raleigh's cases (vol. i. for 1883, page 266), taking on the diaphoretic algide form—collapse threatening death, with sweating, but without vomiting and purging, at the end of a regular paroxysm of fever.

3. The next link is formed by so-called cases of "Hæmorrhagic Dysentery" (which, however, display no character of true dysentery), not infrequent in India, where paludal fever displays the pernicious character by an enormous flow of disintegrated blood from the bowels with collapse (*vide* Mr. Hare's case, vol. i. for 1883, page 407).

4. Then come cases, undoubtedly of fever, with heat of skin, with or without vomiting, and with copious discharges of thin sanguinolent fluid, such as the following, by Baboo Odoy Chand Dutt:(b)—A native prisoner, aged twenty, was admitted with Intermittent Fever, not apparently very severe, of six days' standing. The next day it was reported that he had fever throughout the preceding day and night, which remitted. On the third day there was the same report. At 4 p.m. he had three copious watery stools of a bright red colour, very thin, without large coagula. He became pulseless and collapsed, and died in an hour. The peritoneum and large intestines generally were congested. About a pint of reddish serum was effused into the abdominal cavity. Cæcum congested, thickened, and covered with red patches. Large intestines filled with a dark-yellow fluid.

Six months later, a prisoner, aged thirty, complained of fever for two days, for which he only sought admission to hospital on the third day. He had vomiting and purging that morning. In the afternoon he had two copious watery stools of a deep dark-red colour, with flocculent yellowish deposits, and vomited thrice—bile and mucus. He was found with sunken eyes and very feeble pulse, abdomen sunken and free from tenderness, very restless. He had one scanty stool at night of a deep red colour. On the following morning collapse had passed away, but there was sickness and retching. He had strong fever at noon, which left him in the evening with a weak pulse. On the next day he had fever with sickness from noon till 4 p.m., less strong than on the preceding day. Quinine had begun to tell. On the following day he felt pretty well, but very weak. He had no further bad symptoms.

5. I twice saw, in Bengal, an outbreak of a disease which wanted none of the usual characteristic symptoms of true Asiatic Cholera, except that the rice-water stools were blood-tinged. [In another similar outbreak I would recommend careful thermometrical observations.]

In the museum at Haslar Hospital there used to be a dried preparation of the lower part of the ileum taken from a patient who died in the first Epidemic outbreak of Asiatic Cholera in England in 1832. For about a foot above the cæcum it was of a deep mulberry-red colour.

In the only outbreak of truly Epidemic Cholera that I chanced to see in Bengal, in 1849, I found, in all of my numerous fatal cases, intense redness of the lower part of the small intestine (over which there was great tenderness during life). The stools were rice-water-like without the slightest tinge of blood. This was accounted for by the presence of a condition which I have never again met with in cholera. The congested mucous membrane was evenly coated by a strongly adherent, croupous-like, white exudation, nearly as thick as the intestine itself. From the inner surface of this, thin white processes floated convergently towards the axis of the canal into shreddy rice-water fluid. Clearly, all passage through the inflamed gut had ceased some time before death. Mentioning this to the intelligent Madras Dresser who assisted me in my military hospital, I was told that the regiment had suffered from such a type of Cholera in Madras some years previously; and he showed me, in some of the older men, huge cicatrices in the right iliac fossa, evidently caused by some powerful escharotic. I counter-irritated so decidedly in the case of our Chaplain that, for years afterwards, he struck his side whenever we met.(c)

6. At vol. i. for 1883, page 407, I have given cases by Dr

(b) *Indian Medical Gazette*, February, 1869.

(a) In commencing the publication of these Notes, I said that it was my intention to arrange them "in accordance with the Nomenclature of Diseases promulgated by the College of Physicians." Until now, this order of sequence has been strictly adhered to; but, seeing that at present the attention of the profession is specially directed to Cholera, it appears right that my observations upon this disease should appear at once, the notes upon *Malarious Cachexia* being resumed hereafter.

(c) Although he does not describe this type of Cholera, Annesley refers to this mode of treatment ("Sketches," 1829, page 157): "A nitric acid blister has been strongly recommended, and I have given it a full trial." . . . "it always made an eschar." "Scalding water has been recommended as a blister." As in Cholera the gravest incidence of disease is always upon the lower part of the ileum, I think that we should never fail to apply strong counter-irritation over the right iliac fossa. I always did so.



Geddes and myself, which might be regarded as examples of true Cholera, save that rice-water stools occurred in the course of Fever.

Under this head we must class a type of Fever (some considered it to be true Cholera—which it assuredly was not) described by Dr. Murray in 1840(d) as the “Malwa Sweating Sickness.” The attack commenced with rigors or chilliness, followed by dull headache, increased heat of skin, and dilated pupils, a burning sensation at the epigastrium, with restlessness and thirst, and generally copious watery motions smelling like the flesh of carnivorous animals slightly tainted. In many cases there was vomiting of a similar fluid, with cramps in the extremities; and the skin soon became bathed in perspiration. There was great oppression in breathing, with anxiety and præcordial uneasiness and weak rapid pulse. At the commencement, there was prostration of strength, with a feeling of exhaustion; and afterwards there was real debility, sometimes extending long into convalescence. In the severest forms of the disease, all bodily uneasiness soon ceased, except that arising from the thirst and the pectoral oppression; the perspiration continued excessive and became cold. The mental faculties remained clear till towards the end, when, coma gradually intervening, death sometimes ensued within ten hours of the commencement of the attack. Vomiting and cramps were neither constant nor prominent symptoms; but, in the severe cases, no urine was passed, nor was there any bile in the evacuations till reaction ensued.

When the disease took a more favourable turn, the pulse became more full and the præcordial oppression diminished; some dark green fæculent matter was passed by stool, a little urine was secreted, and the patient slept. If the case did not proceed at once to convalescence, the pulse did not become natural, the pupils remained sluggish, there was anxiety, and the skin continued muddy and strongly perspiring.

After a remission of twenty-four or forty-eight hours, sometimes anticipating by two hours, the same train of symptoms was apt to be renewed. The skin became dry at first, and sometimes hot; the burning sensation in the epigastrium recurred, followed by two or three watery nauseous stools, and great exhaustion of strength; and, although the skin became cold, the perspiration increased. There was occasionally wandering of the mind, but extreme collapse, with a state approaching coma, was more common; and these increased after each periodic exacerbation or paroxysm if the case was proceeding unfavourably. There were never any cramps after the first attack, and vomiting was also less frequent. The appearance of the stools was brown, green, or yellowish—the latter being most favourable.

As the disease went on, remission succeeded the paroxysms with a regular periodicity. When the patient was to recover, the attacks became more slight, and sometimes convalescence was rapid, without leaving any organic derangement; but, when the disease was of a dangerous character, the collapsed and comatose states were more prolonged after each exacerbation, and sometimes the patient never rallied after they came on. One patient remained three days in a state of coma, yet ultimately recovered; in one case convulsion preceded it, and in two others it came on after very acute pain in the region of the kidneys, which appeared to be spasmodic, as it subsided suddenly. In several cases uneasiness was complained of about the heart, and continued for some time after convalescence was established. Dr. Murray was strongly inclined to think that this was caused by the formation of coagula in some of the heart's cavities.

In commenting on the above report, Dr. Corbyn wrote very curtly, that this disease, “of a periodic remittent character, attended with a peculiar foetid perspiration connected with a depraved condition of the blood, is nothing more than a modified form of Cholera which has occurred in various situations in India, but especially at the Presidency” (Calcutta). This disease (which Dr. Murray, Senior, designated “Febris Remittens Choleroidea”) has, however, shown itself repeatedly elsewhere, and has been generally recognised by those who witnessed its ravages as a Pernicious type of Remittent Fever.

In the following example, this fever appeared during the prevalence of Cholera in the regiment, and may almost be regarded as a hybrid of this disease. This history is one

of singular interest as showing the close relationship which exists between Pernicious Remittent and Cholera.

In November, 1840 (nearly contemporaneously with the appearance of the “Sweating Sickness” at Malwa), a wing of H.M.’s 4th Regiment were in camp, Cholera having prevailed at headquarters, near Bellary, an inland station centrally placed between Madras and Bombay. Drunkenness was prevalent, and the men were exposed to the sun and to the chilly nights without adequate clothing. Throughout the preceding month there had prevailed an aggravated form of Remittent Fever “of a highly sthenic character, presenting many of the features of the Ardent Remittent of the West Indies.” The fever now, however, became congestive, manifesting a strong tendency to terminate either in sudden cerebral effusion or in prostration and collapse. Mr. W. Parry says that, in most instances, it was ushered in by dull pain in the head, giddiness, nausea, oppression at the præcordia, thirst, restlessness, and a feeling of extreme exhaustion; the countenance was either dull and heavy, or anxious. There was seldom much febrile reaction, and the pulse was mostly very weak and small. Death was ushered in by sudden prostration and collapse, sudden sharpening of the features, and a severe, but undefinable, sense of uneasiness and suffering at the præcordia, attended by frequent sighing and extreme jactitation. Soon after this, two or three watery evacuations were passed in rapid succession, and these were instantly followed by extreme collapse. The body became all at once deadly cold and covered with a clammy, unhealthy sweat. Pulse almost imperceptible. Drowsiness supervened, and soon terminated in fatal coma. The above was the type assumed by the disease in worn-out and intemperate men. In more youthful and unbroken constitutions, and indeed in the more ordinary type of this fever, there was generally much greater febrile and vascular development, and a greater tendency to assume a very irregular periodic type, most frequently an irregular quotidian or double tertian. In two men, after what appeared to be a complete intermission for two days, the paroxysm commenced with severe convulsion—in one, ending in paralysis and coma, fatal the next day; in the other, merging in long-continued stupor, which passed off by very slow degrees. In other cases, in which the disease had observed considerable regularity for three or four days, instead of a recurrence of the regular paroxysm at the anticipated hour, there was sudden collapse, the body became cold and covered with clammy, unhealthy sweat, the limbs and countenance purple, and the circulation nearly arrested. This profound collapse occurred in one individual at nearly the same hour for three successive days, after which he gradually recovered.(e)

At page 266, vol. i. for 1883, I have cited the description of the leading features of an outbreak of Pernicious Remittent, which occurred in H.M. 6th Foot, stationed at Deesa, Bombay Presidency, in September and October, 1835. In many of these cases there was deadly collapse.

“With this sudden sinking there sometimes existed internal heat and thirst. The extremities were often deadly cold, while the trunk was warm.” In some cases there were “evening exacerbations, somnolency, immobility of pupils, or bilious vomiting and watery purging two or three days before death.” “In other cases, of considerable severity at first, there were nocturnal perspirations so profuse as to drench the bedding.” Dr. R. Brown also described this outbreak as it occurred, at the same time, at Deesa in his troop of Horse Artillery. His description of the disease fully agrees with that by Dr. Jackson, of the 6th Foot, which I have cited. After two or three days of suffering from a sense of extreme exhaustion, there would be a few rigors, with shrunk features, oppressive headache, epigastric weight and tenderness, with much nausea and ineffectual retching, followed by some reaction, raised temperature, acute headache with occasional delirium, bowels generally torpid, nausea constant, retching distressing, sometimes followed by vomiting of dark-coloured fluid. This stage was very uncertain in duration, sometimes partially remitting and again returning. At length perspiration would break out, happily sometimes warm and general, bringing relief of all the symptoms for a time: sometimes, not unfrequently, partial, cold and clammy, without relief of symptoms, with continued irritability of stomach; feeble,



quick, compressible pulse; great depression of spirits; occasionally involuntary passing of watery stools; urine scanty, dysuria. In many cases this condition, which seemed almost to amount to irretrievable collapse, continued for a long time, and would be succeeded by a reaction, generally less strong than the previous one, but marked with symptoms of congestion of liver, spleen, or brain; and this process would be again gone through until the disease was subdued.

7. Last in this progressive series, which has not, I believe, been thus fully traced out by any preceding observer, is the fully developed expression of Pernicious Fever in Malignant Asiatic Cholera.

Several authorities—Hutchinson, Searle, and others—held, long before I went to India, that Cholera is Fever, the gravest development of the potency of marsh poison. Many of our data are in favour of this opinion, and I doubt if there is any fact in its history which is irreconcilable with this view. At the same time I do not think that, considering the large means of research, upon the lines so ably followed by Drs. Lewis and Cunningham, still open to us, we should be justified, at present, in adopting this or any other theory of the cause of Cholera. I shall continue to watch the quest for the "Cholera germ" with a perfectly open mind, equally prepared to learn that, if such an organism really exists—which appears most doubtful—it is a hitherto undetected microzyme, or the at present rather slighted *Bacillus Malariae*.

(To be continued.)

## ON THE TREATMENT OF CHOLERA DURING THE FIRST STAGE AND DURING THE FEVER OF REACTION.

By BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(Concluded from page 180.)

In the three previous papers I have kept closely to the subject of the treatment of cholera in the stage of collapse. I would in this final short communication touch on the treatment of the first stage and of the stage of reaction.

Without suggesting that fear may be a cause of true malignant cholera, I am quite sure that fear is a frequent cause of intensification of the symptoms; and that a cheerful countenance and an assuring word by the medical attendant is a splendid prescription. I put this first because that is its true place.

Frequent visits by the medical attendant are all-important. I am as certain as I can be of anything in practice that, in 1854, I was the means of saving four cases by attention to this rule of practice. As far as I could, I visited every serious case every two hours. I then saw that all directions were being carried out faithfully. I encouraged the attendants to hold on steadily, and not to be alarmed. I saw that the utensils into which the discharges were received were carefully cleansed, and that the cloths used for drying the earthenware cups and basins for the patient were not used for other purposes. I saw that the room was kept at an equable temperature, and that the patient was not only kept quietly recumbent, but that food and medicine were duly administered.

The treatment of the early stage resolves itself into three parts—

*The Hygienic.*

*The Dietetic.*

*The Medicinal.*

*The Hygienic Treatment.*—It seems to me essential, whenever it is possible, to treat the patient at his own home. The plan of transporting patients a distance, to a hospital, is most critical. The motion keeps up the intestinal disturbance, and the mental trouble engendered is extremely depressing. It is also very difficult to treat several patients at one time in one room or ward. Some are sure to die in the presence of the living, and the moral effect on the living is disastrous to a degree which has to be witnessed to be understood.

The patient, then, retained in a single room, should be induced at once to lie down at full length, with the head a little raised. He is best lying flat on the back, and he ought to be accommodated on a small iron or truckle bedstead,

which should be so far removed from the walls that every one can walk round it freely. When it can be obtained, an india-rubber sheet should be placed over the lower blanket that covers the mattress, with the lower sheet over it. An upper sheet, with two or three light blankets, should form the covering of the sick; and it should be loosely laid on, so that there may be no difficulty of movement.

The bed should be divested of all unnecessary curtains and valances, and the room should be cleared of carpets and of all stuffed furniture. By the side of the bed there should be at hand three or four enamelled iron basins and a store of small, clean, cheap cloths. The vomited fluid from the patient can be received into one of the basins without much movement. A night-stool should also be by the bedside, to receive the excreted fluids immediately. Nothing is so good as a large iron pail containing a solution of iron sulphate. There should be put into the pail a pound of iron sulphate, and on that four quarts of water should be poured. Every vomit and every purge should be transferred at once to this pail. When the pail is getting charged, its contents can be cast down the watercloset, with more water, without letting any remaining undissolved crystals of the sulphate escape. So long as there are crystals of the sulphate undergoing solution in the pail it is ready for use. A store of solution of the sulphate may also be advantageously kept in another vessel, and the utensils may be rinsed with that solution, and dried with one of the cloths. After use, each cloth should be torn up and burned. The dry cloths, so often required by the patient for drying the lips, should, in like manner, be burned at once.

The room should be freely ventilated, and in it there should always be a fire. The temperature of the air should be 60° Fahr. All fads of hanging cloths saturated with disinfecting solutions about the room are, in my opinion, useless and hurtful. They keep up dampness of the air, and encourage slovenly uncleanness. There should always be abundance of light in the room. The direct light may be screened from the patient if he find it distressing, but the room should be flooded with light when it can be, so that no speck of impurity may escape detection. For destroying disagreeable odour there is nothing so good as the volatilisation, from time to time, of a little iodine, until the odour of the iodine is just perceptible in all parts of the room. Ten grains of iodine placed in an evaporating-dish, and evaporated with a spirit-lamp, is sufficient for a room 12 ft. by 12 ft. by 10 ft. Messrs. Krohne and Sesemann once constructed for me an iodine vaporiser, which answered well, but anyone can improvise a vaporiser. If an evaporating-dish is not at hand, the saucer part of a common flower-pot will do, or a fire-shovel slightly heated over the fire may be brought out into the room and the iodine cast on it.

*Dietetic Treatment.*—Cool—not cold—neutral and sustaining fluids are the best foods. Cold fluids increase the cold of the body; heated fluids tend to excite vomiting. The fluid, the formula for which I gave in a previous paper, and thin chicken-broth, are typical drinks. Milk which has been boiled, and afterwards mixed with water that has also been boiled and brought down to tepid, is excellent when it can be retained, but in many persons the caseine coagulates, and then the drink is vomited. Some patients prefer water or very weak cool tea to everything else, and this often answers excellently. To try to introduce solid food by the mouth is quite in vain; such food irritates, produces flatulency, and excites intestinal disturbance.

The patient should be induced to drink slowly—immediately after vomiting is a suitable time. If he drink slowly he may drink as freely as he please should no uneasiness or distension be produced. I am almost afraid to treat on the administration of alcoholic drinks in cholera, for fear that I may be accused of writing under what is called prejudice respecting those drinks. But it would be cowardly on that account to suppress what I feel to be most importantly true, namely, that the use of such drinks in any form is systematically pernicious in cholera. Years before I held the views respecting alcohol which I now hold, I had learned by what I had observed, first, that no good whatever follows the use of alcohol in cholera, and, secondly, that the local stimulation it causes excites vomiting, induces a febrile excitement, and favours after-prostration. It was difficult to keep alcohol-drinkers from taking it freely, and it was too easy to detect that these persons were they who died most frequently and rapidly. How any authority



could recommend such a vile admixture as brandy-punch for the indiscriminate use of people falling ill with cholera I am utterly at a loss to understand, nor can I either from the practical or physiological side see, at any moment, a place for alcohol in the treatment.

*Medicinal Treatment.*—Without entering into any controversy as to different modes of medicinal treatment, I would record, in briefest space, what has seemed to be the most effective method.

In cases where it is clearly shown that the symptoms have followed indulgence in any kind of food or fruit that has created stomachic or intestinal derangement, I have found it good practice always to administer a dose of castor oil, and, if necessary, to repeat the dose. After Dr. George Johnson's essay on administration of castor oil I was bolder than before as to this plan, and, I think, with favourable results. So soon as the oil has acted by the bowels—for, singularly enough, it rarely excites vomiting—I have given in every case a mixture containing creasote, opium, and camphor. The following is a good form:—Pure creasote, ℥iij.; compound tincture of camphor, ℥ss.; pure glycerine, ℥ss.; distilled water, ℥ss.—to make a mixture of twelve doses, of which one fluid drachm in a wineglassful of water may be taken every hour until the vomitings and the discharges from the bowels are relieved. (a)

The first suggestion for the use of creasote in cholera was made by my late friend, Mr. H. Stephens, of Finchley, the favourite fellow-student of Keats the poet, and himself a man of signal genius. It was afterwards, and quite independently, introduced and used with remarkable success, in 1848, by my friend and once fellow-student, Mr. C. N. Spinks, of Warrington; and in 1850 the use of it formed the subject of an essay from my own pen in the old *Medical Gazette* during the editorship of the late Dr. Alfred Swaine Taylor. On the question of this line of medicinal treatment I have never seen the slightest occasion to change my views. Creasote in small repeated doses, in combination with opium and camphor, as formulated above, checks the choleraic discharge, relieves the spasm, and is the most demonstrably curative of any remedy I have known.

*Treatment in the Stage of Reaction.*—I doubt if there be any stage of cholera in which more careful treatment is demanded than the stage of reaction. One is very apt to be deceived by the transition from the cold stage of collapse to the stage of fever. At first all seems well. The cold extremities become warm; the cold breath, so characteristic of cholera that it would yield a diagnosis almost of itself to those who have seen cholera, is again natural; the cramps have ceased; the mind of the patient is easy; the anxious, shrunken expression has departed; the voice has lost its bleating sadness; everything bids fair for recovery. An hour or two passes, and all is changed: there is intense fever, dry skin, parched tongue, nausea, often delirium, and too often a second collapse, assuming what was once commonly called the typhoid type.

The reaction is as close as it can be to that which succeeds exposure to extreme cold or starvation, and the treatment required to meet it is practically the same.

When the stage of collapse has decidedly passed away, the safest practice is to prevent every artificial means of stimulation. Hot drinks, rich foods, alcoholic stimulants, over-clothing, over-heating of the air of the room, are all to be specially avoided. The patient may continue to drink cool watery fluids, he may be allowed watery fruits like melon, but he must not be rapidly fed. He may be relieved of medicine. He must be allowed to rest and sleep.

If, in spite of all precautions, the febrile state does occur, and if the pyrexia runs high, the plan is to combine the application of the cold band to the cervical region and to the head, with administration of cool drinks in abundance, and continued absolute rest.

Medicinally, ammonia, largely diluted with water and milk, is the agent most likely to retain the fluidity of the blood and prevent septic change. Or ammonia might be exhibited by inhalation in the form of ammoniated chloroform, after the manner I have recently suggested for the reduction of zymotic pyrexia.

(a) This form, prescribed by me for an ingenious English lady who recovered from a severe choleraic attack, was carried by her to Southern America, and was used by her there, in a district where there was deficient medical assistance, with such good effects, that she became, during an epidemic outbreak, a noted healer amongst the native population, and netted no inconsiderable sum of money as well as credit for her curative skill.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### LONDON HOSPITAL.

#### PROLAPSUS UTERI—ELYTRORRHAPHY.

(Under the care of Dr. HERMAN.)

[Reported by Mr. E. ENGLISH.]

S. C., aged forty-seven, laundress, admitted into the London Hospital, July 6, 1880, complaining of "the womb coming down." States that her mother and a sister suffered in a similar manner. Patient has had to work hard all her life. Married at thirty-three; had two children—the last ten years ago: both labours good. About two years ago had a fall on the lower part of her back; had to take to bed a day or two after it, and felt weak for some time after it. About two months after the fall she first noticed the womb coming down. At first she could easily reduce it, and after reduction it kept up some time, but latterly it had protruded further, and been more difficult to keep up. Bowels very confined; pain and difficulty in defæcation. Patient is sometimes, but not always, unable to properly retain urine. Had had no treatment until June 19, when she came to the out-patient department. The vaginal orifice was large; there was a cystocele, and when the patient strained, the cervix uteri protruded from the vulva. The sound entered four inches. She was given a cup-and-stem pessary, supported by bands attached to a waist-belt; but as she was not satisfied with the relief which this gave her, she was admitted into the hospital.

July 16.—A diamond-shaped piece of mucous membrane was dissected off the anterior vaginal wall, and the edges brought together by sutures.

28th.—Posterior elytrorrhaphy was performed, the stitches being inserted in the manner recommended by Emmett—that is, each suture sunk throughout in the posterior vaginal wall, so as to draw the denuded surface of the vaginal wall forward into contact with that on the labia. Good union took place, and on September 18 the patient was discharged, wearing a thick india-rubber ring, which she said was quite comfortable.

July 24, 1883.—Patient still wearing the ring, having attended once in six months since operation. Is quite comfortable. No trouble of any kind with uterus.

*Remarks.*—This case illustrates the kind of benefit which may be expected from surgical operations upon the vagina in cases of prolapsus uteri. Descent of the uterus does not result merely from an alteration in the lower part of the vagina. To permit it there must be relaxation, not simply of the vaginal outlet, but of the peritoneal folds, muscles, fasciæ, and cellular tissue which hold the uterus in position and form the floor of the pelvis; and an operation on the vagina cannot restore these parts to their natural condition. Hence the almost invariable failure of operations upon the vagina to give lasting relief in these cases. When the patient gets about, the prolapse begins to recur. The anterior vaginal wall, which is commonly the first part to come down, gradually dilates, like a blunt wedge, the artificially narrowed vaginal orifice, and the state of things antecedent to the operation is before long reproduced. But narrowing of the vaginal orifice by an operation will enable a vaginal pessary to be retained, and this will support the uterus. The pessary is retained by the vaginal wall, or by the pubic arch (according to the kind of pessary employed), and does not press into and dilate the vaginal orifice. Hence, with the assistance of such an instrument, the uterus may be permanently kept up. In this case, relief at the end of three years is as complete as when the patient left the hospital. The operation will not enable the patient to do without a mechanical support; but where the wearing of one with external straps is irksome, we can at least promise by this operation to remove the necessity for an instrument of that kind.

**CHLOROFORM IN EARACHE.**—A correspondent of the *Druggists' Circular* states that a mixture of one ounce of olive oil and one drachm of chloroform is a most speedy and effectual remedy in earache. It should be well shaken, and twenty-five to thirty drops dropped into the ear, which is then to be closed with cotton-wool.—*Phil. Med. Rep.*, July 28.



TOWN'S HOSPITAL, GLASGOW.

NOTES OF A CASE OF PUERPERAL ECLAMPSIA,  
WITH SUCCESSFUL DELIVERY BY BRAXTON  
HICKS'S METHOD.

[Reported by T. HAMMOND WILLIAMS, L.R.C.P.E., etc., late Senior Assistant Medical Officer.]

S. W., aged twenty-four, a washerwoman, was admitted on May 16, 1883. She was in fair health and condition, and at full period of pregnancy, when she was seized with convulsions, having had three severe fits at intervals of an hour. The convulsions were general, lasting three to five minutes, the patient remaining in a state of stupor for about half an hour afterwards. Artificial respiration was commenced after the last fit; previously the breathing had ceased, and pulse was only perceptible. After respiration was fully established, chloroform was inhaled by patient, and she was kept under its influence for six hours. At the onset an examination per vaginam showed that the head was presenting, but the os did not admit more than the point of the finger. Before the administration of the chloroform a catheter was passed, and urine drawn from bladder and examined, proving to be highly albuminous. Œdema of the feet and ankles was also noticed to a slight degree. Dr. Robertson, who was called in consultation, after dilating the os uteri to allow the introduction of the points of two fingers, performed bipolar version, bringing down the feet, then rupturing the membranes, and delivering the mother of a healthy living child. The placenta was expelled in about five minutes after the birth of the child. Hæmorrhage occurred, and continued for a quarter of an hour after termination of third stage. Clots were removed from vagina, and firm pressure applied over fundus, but the uterus tended to relax until the patient suddenly had another convulsion, after which the hæmorrhage ceased. Pulse was at this time extremely weak and irregular, and the respirations panting in character. Stimulants were given by mouth, but the stomach rejected them immediately. Fifteen minims of sulphuric ether were injected subcutaneously every quarter of an hour with marked beneficial effect. The ether was detected in breath five minutes after first injection. Several severe rigors supervened; limbs were noticed to be in a state of tonic spasm, and, fearing another fit was imminent, again chloroform was inhaled for about half an hour. No convulsions occurred afterwards, but the patient for the next five hours remained in a semi-unconscious condition. The pulse increased in rapidity, and improved in tone from 78 to 112, and temperature rose from 97° Fahr. to 100·8° Fahr. after the ether injections. Nutrient injections were given per rectum, and a little brandy by mouth, which the stomach now retained. The patient made a good recovery, and was dismissed after being in ward for four weeks.

The case may be a little interesting, in respect of the method employed in turning; the temporary and rapid stimulating effects of subcutaneous injections of sulphuric ether; and the cessation of hæmorrhage after the last convulsive seizure.

EFFECTS OF TELEGRAPHY ON THE HEALTH.—The conspicuous position in which telegraphers have been placed in the present strike has served, among other things, to call attention to the great demands made by that calling upon the nervous systems of those who follow it. The first-class operators all read by sound, and in a large office where a hundred or more receivers are all buzzing at once, the strain upon the organ of hearing, as well as upon the cerebral centre of audition, protracted as it is through ten hours daily, is very great. Of course, in this as in every other occupation, it is true, to a certain extent, that “custom makes it a thing of easiness. Yet, to discriminate between the longer and shorter dashes in an instrument clicking at the rate of a very large number of words per minute, involves none the less a very close exercise of the attention, even when it is done only for the regular working-hours, while those operators who have been obliged, since the strike, to work double time, have been excessively exhausted. The nervous and muscular energy expended by a rapid sender is perhaps still greater. It is said that few operators are good for much after the age of thirty-eight.”—*Boston Med. Jour.*, July 26.

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Medical Times and Gazette.

SATURDAY, AUGUST 25, 1883.

LORD MORLEY'S COMMITTEE.

It must be admitted that Her Majesty's Government have shown considerable skill during the present session in staving off discussion on disagreeable questions; and they have also been aided by good fortune in their efforts of this kind. We have nothing to do here, of course, with topics of a political or diplomatic character, and propose to speak only of their escape from any serious debate on the Report of Lord Morley's Committee on the Army Hospital Services in the field. When complaints were first made of much of the evidence brought before that Committee respecting the services of the Army Medical Department during the Egyptian campaign, all discussion of the matter was deprecated as untimely and inconvenient; and the Government promised, or at least implied, that an opportunity of discussion should be given when the Army Estimates came before the House of Commons. As the session proceeded an inquiry was made now and again as to when the Army Estimates would be brought forward, but the Government were never able to name a time. The Report was made the subject of a discussion in the House of Lords by Lord Bury; but there fortune befriended the Government, for the points in the Report chiefly, and almost solely, dwelt on were the superior merits of the regimental system of army medical officers as compared with the departmental system, and the supposed necessity of having a military commandant over every army hospital; and it was very easy for the Government to defend the conclusions arrived at by Lord Morley's Committee on these points. Time went on, and still no date could be fixed on for bringing the vote for medical establishments and services before the House of Commons, till at length it was brought on at the fag end of a very prolonged and wearisome session, on Saturday, the 18th inst., when the House of Commons was thinned by the absence of every member who had been able to get away from London; and those who were left were only anxious to bring the session to an end as speedily as



possible. And then, again, the points dealt with were the present system of army medical officers; the question whether it shall be applied to the Household Troops as well as to the rest of the Army; and the imperfections of the Army Hospital Corps, which are not disputed. The Secretary of State for War, in order to shorten the discussion, promised that he would as soon as possible go carefully into the recommendations made by Lord Morley's Committee, and consider to what extent they could be adopted; but that no important changes, "involving the issue of a Royal Warrant, should be made until an opportunity had been afforded the House of discussing the matter." And he further said he thought the discussion of the Report had better be postponed until the action the Government proposed to take upon it was brought forward in the early part of next year. We have no idea as to how elastic the term "no changes involving the issue of a Royal Warrant" may not be; and, certainly, the promise of a discussion of Lord Morley's Report in the early part of next year will be very good comfort to the army medical officers. No opportunity has been given of pointing out the grievous injustice done them in that Report; and next year the matter will be an "old story," and it will be almost impossible to raise any serious discussion upon it. It was a bold thing, considering the history of recent sessions of Parliament, to speak seriously at this time of what subjects the Government "will bring forward in the early part of next year"; and the Ministry must have felt very sure of the eagerness of a "wearyed and jaded House" to close the session when they ventured on such a device for shortening a discussion. And, in fact, the further wrong done to the officers of the Army Medical Department in fatally deferring all opportunity of exposing the flagrant injustice of the charges brought against their Service in Egypt, is not to be laid at the door of the Government alone. Had any large number of the members of the House of Commons taken any real interest in the matter, Her Majesty's Ministers might, without any great difficulty, have been brought to see the necessity of providing time and occasion for discussing the alleged grievance. But anything like a general comprehension of or care about the question, whether or not the army doctors had been wronged, was certainly not to be found in the Lower House of Legislature. It appears also but too certain that the General Officer Commanding-in-Chief during the Egyptian Campaign, though a successful soldier, is wanting in some of the qualities essential to greatness of character. He knows, better than most men, the strictness of the Army Regulations, that fetter any real freedom of action by medical officers, and he knows, as well, all the special difficulties that were placed in the way of those officers when active hostilities on land commenced; but he has never had the moral courage or the generosity to acknowledge that *all* the defects shown, for a very brief time only, in the equipment and general management of the hospitals at Ismailia and Cairo were caused entirely by his own conduct of the campaign. Yet it is the simple truth that all the shortcomings most complained of, excepting as to the character of the cooking, were due entirely to the suddenness and the rapidity of the military movements after Lord Wolseley commenced active hostilities.

#### WHITE-LEAD WORKERS.

DURING the past year public attention has been perhaps more pointedly than ever directed to the dangers attending the manufacture of white-lead. In the summer of 1882 several inquests in cases of death from lead-poisoning, and the reports of the medical superintendents of the Holborn and Shoreditch Union Infirmaries, created some sensation,

and called forth articles in the daily papers; but the manufacturers endeavoured to treat the alarm as a needless scare, and to attribute the cases of death and disease to the obstinate neglect of precautions and wilful recklessness of the operatives—mostly women of a low class—among whom they occurred. Acting on the suggestion of their medical officers, the Boards of Guardians of the Shoreditch, Holborn, Poplar, Newcastle, and Gateshead Unions addressed memorials on the subject to the Home Secretary; and Mr. Redgrave, the veteran Inspector of Factories, was instructed to institute an inquiry. In his report, dated November 30, 1882, he says: "The careful inquiry I have made has shown me that the temporary illnesses and permanent disabilities which affect those working in white-lead *far exceed anything* that has come before the public." If these were limited to colic, which soon yields to treatment, the evil would not be so urgent; but, besides lead-palsy, more or less amenable to a course of iodide of potassium, the medical reports mention cases of permanent blindness, and of convulsions which, though often described as epilepsy, are in fact of the nature of meningitis, and frequently fatal within twenty-four hours. Two such have come under our own notice in the last few weeks. Such are the consequences of lead-poisoning as seen in these factories; and the questions are—How are they caused? and How can they be prevented?

Anyone visiting the works will have his attention directed to workmen who have enjoyed good health for ten, twenty, or more years, and will be told that the blame rests with the women, who, averse to soap-and-water, and careless, ignorant, and headstrong, bring the consequences on themselves. They may be all this and more—ill-fed, dissipated, and so forth,—but the fact is that while the men—for the most part steady, respectable, and sober—are employed in casting the metallic lead, and in grinding and mixing the white-lead (processes conducted in the wet way, and therefore with ordinary care devoid of serious danger), the miserable casual females, who alternate labour at the lead works with haymaking, hop-picking, or street life, are employed in "unstacking," "stoving," and "drawing"—dry and dusty operations. The irresistible conclusion to be drawn from Mr. Redgrave's report is, that no amount of precautions, however rigidly enforced and conscientiously carried out, can have any appreciable effect in lessening the danger or the evils inseparable therefrom. Indeed, the recommendations drawn up by Mr. Redgrave, which, when laid before Parliament, were pronounced by some as simply impracticable in their stringency, are but a mild copy of those actually enforced in one factory, where, in addition to endless ablutions, etc., every man and woman is compelled to wear flannel combinations, oilskin petticoats or aprons, headcloths, respirators, etc., when employed in dangerous work. But even in this model establishment from 10 to 40 per cent. of the operatives constantly suffer from one or other form of lead-poisoning. The fine dust enters the mouth and lungs, penetrates the clothing, and baffles the care and ingenuity of masters and employed. White-lead cannot be considered as a definite chemical combination, it is a mixture of carbonate and hydrate approximately represented by the formula  $2\text{PbCO}_3 + \text{PbH}_2\text{O}_2$ . It is made by exposing thin corrugated sheets of metallic lead to the vapour rising from jars of crude acetic acid (wood vinegar) under the heat evolved from fermenting tan in the stacks built up of layers of each of these matters and left to stand for about three months. When the stack is taken down the crusts of white-lead are scraped off, and the unaltered lead is recast for further exposure to acid and heat in the next stacking. "Stoving" consists in carrying the pasty mass of ground white-lead in pans to the oven; and "drawing" is the removal of these pans, and emptying them



contents when sufficiently dried into casks. For many years past attempts have been made to find a remedy in two directions—either to find a less injurious process than the so-called Dutch method of making white-lead, or to discover a substitute for lead in any form. The most successful of the substitutes proposed has been the mixed silicates of zinc and barium, which possess the further merit of not blackening by exposure to sulphides in the atmosphere. But though, when first applied, the best of these (the Albissima and Charlton Company's paints) appear to equal the lead colours in body and covering power, we are assured by a West-end builder, who has given them a fair and full trial, that they tend to crumble off, and in permanence are inferior to the lead paints even for indoor, and much more so for outdoor, use. In the former directions it has been sought to obtain a white-lead by precipitation, but the product, as for some time past turned out by one factory, is a *crystalline* carbonate, very inferior to the soft amorphous mixture yielded by the stack process. But we would call the attention alike of sanitarians, philanthropists, and practical men to a new process already patented by Professor E. V. Gardner, and now in operation at his works at Deptford, in which, by the aid of electricity and the production of carbonic acid applied through a special apparatus, together with the necessary acid vapour at a proper temperature, the formation of a genuine white-lead of the purest colour and the best quality is rapidly and cheaply carried out in closed chambers, the lead resting upon shelves, which, when the conversion is complete, are lifted out and emptied (the men's hands not touching the lead, and no dust being raised) into a closed combination of machinery, whence it issues as a white paint, ready ground for the market, or, if preferred, as a dry powder. Should this process prove as successful and cheap as is alleged, there is no reason why, at any rate after the expiration of the present patent, the old stack process should not be henceforth prohibited by law.

#### THE MEDICAL ACTS AMENDMENT BILL.

No one who watched intelligently the course of business in Parliament during last week can have believed it was at all probable, not to say possible, that the Medical Acts Amendment Bill would become law this year. The business of getting Bills talked over and passed through the necessary stages—we cannot call it legislation—was pressed on with all possible haste, and the Medical Bill did seem, by the end of the week, to have risen in the business papers of the House of Commons to nearly within a measurable distance of being brought forward for a second reading. But, at the same time, it was known that the Bill was blocked by Colonel King-Harman on the part of some of the Irish bodies, and by Mr. Waddy on the part of the Scottish Corporations and of, we suppose, the Extra-mural Medical Schools in Scotland; and unless the blockings were removed it was impossible for the second reading of the Bill to be brought forward after 12.30 p.m. But there seemed very little chance of any such tempering of the opposition to it, as deputations from the hostile bodies in Scotland and in Ireland were in London for the purpose of securing a determined resistance to the second reading, unless, of course, their objections to the measure were met with some amount of consideration and concession; and of that there appeared to be very slight probability. Still, notwithstanding all this, the Bill remained on the business paper of the House until the evening of the 22nd, when it was at last withdrawn. Dr. Lyons and some other members inquired whether the Ministry really yet entertained any hope of passing the Bill,

and urged the difficulty of proceeding with it, considering the opposition it had met with; and Mr. Gladstone, in reply, said they had hoped to get the second reading on the evening of the 21st, and, if that had been accomplished, they might have hoped to proceed with the measure. He had not had an opportunity of consulting the Lord President of the Council, who had conducted the Bill through the House of Lords; but he felt that as we had reached August the 22nd, and the close of business was being anticipated, he was bound to state that, in the opinion of the Government, the loss of the opportunity of the previous night was fatal to the chances of the Bill. They could not now take the second reading before Thursday, and it was obvious that they could not get it through this session. It was therefore with the deepest regret that he had to announce that it was beyond their power to carry the measure. Mr. Gladstone did not add, regarding the Medical Act Amendment Bill, what he had said just before with reference to the Irish Registration Bill, viz., that it was not only the desire of Her Majesty's Government to introduce the Bill at the very commencement of next session, but to press it on the attention of Parliament. But, though Mr. Gladstone said nothing in the House of the intentions of Government regarding the Medical Bill, we have good reason to believe that the President and Vice-President of the Council have very decided wishes and intentions on the subject. They have devoted a great amount of time and labour to the Bill; they have been untiring in seeing all objectors to the measure, and in considering and weighing all objections to it; they carried it very successfully through the House of Lords early in the session; they have improved it by accepting reasonable amendments; and they have done their utmost, by attention and courtesy, to overcome objections to what they considered essential points in it: and all their time and brain-labour have been thrown away; and the Bill has been wrecked by a little persistent stolid hostility. We had no great admiration for the measure ourselves, but it contained some very necessary provisions, and we were quite willing to accept it, in order to put an end, for some years at any rate, to the agitation for medical legislation; and we suspect the Scottish and Irish Corporations may find that they have made a mistake. We believe that the Bill will be introduced into the House of Lords again as early as possible next session, and that it will be pressed forward rapidly with the full intention of getting it through the Lower House also; and we think it not improbable that it may be made even less palatable to some of the medical authorities in Scotland and Ireland than was the slaughtered Bill.

#### THE BRADSHAW LECTURE.

FORTUNATELY for the advance of knowledge, all men are not constituted alike. Some men never trouble themselves about the writings of those who have gone before, others revel in their study; to some the sifting of the literature of any one special point is a penance, to others it is a labour of love. To this latter class Dr. Wickham Legg undoubtedly belongs. He has already given ample proof of it in his writings; and, if further proof be needed, the reader has only to turn to the Bradshaw Lecture delivered before the Royal College of Physicians on Saturday last—which appears in our pages to-day—to be fully convinced. All English pathologists will, we believe, agree with Dr. Legg that an aneurysm of the heart is a rare disease. It is generally regarded in the light of a curiosity rather than anything else, as being outside the pale of diagnosis and beyond the reach of treatment; and, so far as these two points are concerned, Dr. Legg has added nothing to our knowledge.

After a reference to John Hunter and Matthew Baillie,



who were probably the first writers who used the word aneurysm to signify a partial dilatation of the walls of the heart, Dr. Legg referred to Thurnam's essay, which, though it appeared nearly half a century ago, is still the most important monograph on the subject in the English language. By examining all the cases recorded since Thurnam's paper was published, Dr. Legg found that the apex was much more frequently the seat of the aneurysm than any other part, thus differing from Thurnam, as he also did in the matter of the age of the patient—Legg finding it a disease of middle and advanced life, Thurnam finding it more common under thirty years of age. The most universally (by some the only) admitted cause of aneurysm of the wall of the left ventricle is a fibroid degeneration thereof. Dr. Legg believes, without, however, expressing himself too positively on the subject, that there are two forms of this fibroid degeneration; at any rate, the chief and most important question is, what is the cause of it? Syphilis cannot be made to account for all the cases. Cohnheim has recently put forward the view that these degenerated patches in the ventricular wall were the result of occlusion in a coronary artery, and in fact corresponded to an infarction in any of the viscera, and this view he supported by the assertion that the coronary arteries do not anastomose; the truth of this statement Dr. Legg is unable to bear out, as he found by careful experiments that one coronary artery could be readily filled from the other, the fluid passing by branches over the ventricle and apex. In the publication of these experiments and results Dr. Legg has been anticipated by Dr. Samuel West, who had been coincidentally and independently investigating the same point. Dr. Legg concluded this part of his subject as follows:—"None of the causes of fibrous myocarditis which have been brought forward can be looked upon as proved. . . . Of the cause of fibrous myocarditis, it must be owned we have as yet no clear knowledge; but I incline myself to the opinion that it will be found some day to be closely akin to those causes which make endocarditis and so many other pathological processes choose as their seat the left ventricle and the left endocardium rather than any other chamber of the heart." Amongst other causes besides a fibroid change admitted by Dr. Legg as possible, are fatty degeneration, the rupture of cysts or abscesses into the ventricles, and wounds.

Aneurysms of the right ventricle and auricles are so rare as only to need the briefest mention. Aneurysms of the "undefended space" would appear to be either congenital or due to endocarditis; in the latter case it is probable that they are often dependent upon the friction of long vegetations hanging from the aortic valves. Aneurysms of the valves themselves are probably almost invariably due to endocarditis. In bringing these very few remarks to a close we would express our high sense of the value of an occasional summing up, such as has been provided in the present instance, of our knowledge on abstruse points in medicine or pathology.

## THE WEEK.

### TOPICS OF THE DAY.

IN any other but an eastern country it might fairly be predicted that the outbreak of cholera in Egypt had reached its climax, and was slowly, but gradually, dying out. But with a knowledge of the objections (religious and personal) of the population to sanitary enactments, or either to enforcement of them, it would be hazardous to proffer such an opinion at present. The correspondent of the *Standard* recently reported that an examination of the Cairo water-supply showed that, before its recent rise, the Nile was charged with animal organisms to such an extent, that the

water resembled the product of a stagnant English ditch. Since the rise of the river, however, there has been a slight improvement, but it has now become so muddy that it is difficult to examine it. One great defect of the source of the town supply lies in the fact that there is only a single receiving-tank, which, being in daily use, is never thoroughly cleansed. The water of the Khaleeg Canal, again, is much worse than that in the river, and exhaustive analyses of its condition at various points have been ordered to be made. Surgeon-General Hunter is stated to be engaged in elaborating a drainage scheme for Cairo. Each house is to be provided with a cesspool, which, with all connecting pipes, will be of glazed bricks; these cesspools will be emptied at stated intervals, and the sewage carried away by iron carts, and eventually conveyed some twenty miles into the desert by a special line of rail. Who or what power is to guarantee the efficient working of such a system in Egypt?

The Regent's Canal, City, and Docks Railway (various Powers) Bill has passed the House of Commons without opposition. In his report upon it, Sir Arthur Otway states "that the attention of the Committee had been directed by the Local Government Board to complaints which had been made respecting the sanitary condition of the canal, on the ground that dead bodies of animals had been allowed to remain therein, and that in certain places deposits of offensive mud existed." The Committee examined the chairman and engineer of the Company upon the subject, and received from the former an undertaking that the Company would do all that was reasonable and practicable towards putting and maintaining the canal in a satisfactory sanitary condition. It was also proved that since the canal had come into the possession of the present Company, on March 31 last, they had taken additional means for scouring it, and that the old accumulations of mud were already in course of removal by dredging.

The monthly return of the Registrar-General for Scotland for June last shows that in the eight principal towns of North Britain there were registered during the period the births of 3661 children and the deaths of 2547 persons. Allowing for increase of population this latter number is 129 above the average for the month of June during the past ten years. A comparison of the deaths registered in the eight towns shows that during this month the mortality was at the annual rate of 17 deaths per thousand persons in Leith, 19 in Edinburgh, 20 in Aberdeen, 21 in Perth, 24 in Dundee, 27 in Paisley, 28 in Greenock, and 30 in Glasgow. Of the 2547 deaths, 1065, or 41·8 per cent., were children under five years of age. The miasmatic order of the zymotic class of diseases caused 471 deaths, and constituted 18·5 per cent. of the whole mortality; this rate was, however, exceeded in Glasgow, Greenock, and Leith. Measles was the most fatal epidemic, having caused 173 deaths, or 6·8 per cent. of the whole. In Glasgow 10·2, in Greenock 12·2, and in Leith 8·7 per cent. of the deaths resulted from measles. Whooping-cough proved the next most fatal disorder, 122 deaths being attributed to it. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 468, or 18·4 per cent. Those from consumption alone numbered 331, or 13·0 per cent. One male and four females were aged ninety years and upwards, the oldest of whom was a widow ninety-five years of age.

At the Wandsworth Police-court, Mr. Besley recently appeared on behalf of the Southwark and Vauxhall Waterworks Company, who had been summoned by a householder of Battersea for refusing to supply him with water. The complainant had been before the Court on many occasions in respect to the supply which had been cut off as he was in arrears



of the rate, and at last a summons was granted. He had paid on the higher valuation, after objecting to it for some time, and the Company still refused to furnish the supply of water. Mr. Besley, with reference to the late decision of *Dobbs v. the Grand Junction Waterworks Company*, in the House of Lords, said that the only fact they knew of that decision was that the judgment in the Court of Queen's Bench was reinstated, and that was based on a clause in a private Act of Parliament which did not apply to the company he represented. He admitted that the water had been cut off, and the money subsequently tendered, but it was not sufficient. He, however, suggested that the present case should stand over until the decision of the House of Lords was fully reported, since at present they did not know what their rights were, the water in the meantime to be furnished, and the amount tendered to be accepted without prejudice. This arrangement was ultimately agreed to.

A largely attended meeting of delegates from the metropolitan lodges of the Labourers' Union was held on Saturday evening last, for the purpose of considering the reply of the Prime Minister to a resolution recently forwarded to him by the Union relative to the necessity of appointing a Royal Commission to inquire into the present condition of the housing of the labouring classes. Mr. Gladstone's reply only promised to refer the matter to the Home Secretary, and the president of the meeting observed that, owing to the destruction of dwellings, the working classes were compelled to herd together, irrespective of age, sex, or even numbers, within the wretched hovels which were at an easy distance from their work; and in many instances their rents had been doubled. With the prospect of a visitation of cholera, the question of overcrowding was a vital one; and, as the labouring classes would in all probability be the first to be attacked, no time should be lost in drawing attention to the unsanitary surroundings of the dwellings of the London poor. The following resolution was ultimately adopted:—"That this meeting urgently draws the attention of the Home Secretary to the necessity of immediately appointing a Commission to inquire into the dwelling accommodation of the working classes of the metropolis, with a view to speedy legislation thereon, and more especially the operation of the Artisans' and Labourers' Acts, which, whilst demolishing thousands of the homes of the poor, provides no adequate accommodation for those compulsorily disturbed, and thus augments the miseries of overcrowding, to the increase of vice and immorality of every description, occasioning a state of things not to be tolerated by any civilised government, but more especially by a Government whose progressive programme gained for it the support of the working-classes at the last general election."

When the rainfall of the past few years and the frequent complaints of wet weather this year are taken into consideration, it appears somewhat surprising to hear of places suffering from a water-famine. But, in addition to the breakdown of the arrangements for supplying Richmond in Surrey with water, we hear that in Northampton, at the present time, there is much suffering from water-famine. For some time past the water has been failing, and on Saturday last there was no supply. On Sunday water was only turned on for a few minutes, and was shut off again before most of the inhabitants had secured any supply. Monday showed no improvement in this state of affairs, and the poorer class of the inhabitants had recourse for drinking-water to springs, which, it is alleged, are contaminated.

#### THE INDIAN MEDICAL SERVICE.

In the House of Commons, on Thursday evening, last week, Mr. Cross said, in replying to a question from Mr. Gibson,

that he had several times explained the cause of there being a temporary excess of medical officers who do not hold the substantive appointments which command the higher rates of pay; and he had explained how the difficulty was being met. It was not probable that any inquiry could add to the Secretary of State's information on the subject, and it was not proposed to make any change in the existing system by which officers succeed to substantive medical charges in India. Mr. Gibson, naturally not deeming this reply satisfactory, gave notice that early next session he should call attention to the subject, unless a remedy had been applied in the meantime.

#### LONDON WATER-SUPPLY.

THE report of Messrs. Crookes, Odling, and Tidy on the composition and quality of daily samples of water supplied to London for the month ending July 31, states that of 182 samples of water submitted to examination, the whole, without exception, were clear, bright, and well filtered; and that in respect to aëration, and to general freedom from colour and excess of organic matter, they have maintained their excellent character, although in one exceptional sample the proportion of organic matter present was in excess of what is customary at this season of the year. They find great fault with Dr. Frankland's report to the Registrar-General, and with his method of estimating the "organic impurity" in the riverian water. Thus they observe that, in his report for the month of June, "it is stated that the river-derived waters supplied to London contained from nearly two to two-and-three-quarter times as much 'organic impurity' as a certain well-water standard peculiar to the reporter. As usual, it is not thought advisable to point out that, measured by the same peculiar standard, the 'organic impurity' of the highly reputed Loch Katrine water supplied to Glasgow is, according to the reporter's own figures, in excess of that present in the Grand Junction, Chelsea, West Middlesex, Lambeth, and East London Companies' waters, and is double that present in the New River Company's water." The three reporters then go on to say:—"We would renew our protest against the use of this misleading scale of implied unwholesomeness, and the partisan purposes it is skilfully made to subserve—a protest especially called for at the present time, when the possible spread of cholera to the United Kingdom has directed unusual attention to questions of water-supply, and more particularly to the supply of the metropolis. Now, either this supply is wholesome and suitable, as well during periods of epidemic as at other periods, or it is unwholesome, and therefore unsuitable. The present sources, if unwholesome, ought clearly to be abandoned, at almost any cost. But if these sources, from which water has been supplied continuously to the largest and one of the healthiest among great cities, are determined by competent and impartial authority to be wholesome, it would seem scarcely fitting that an official reporter, whatever the earnestness of his personal convictions, should, by appealing to an arbitrary scale of his own invention, and with the object of enforcing his own individual view, subject these sources to persistent disparagement, and thereby create the unfounded alarms that were so strongly deprecated by the Royal Commission who last inquired into the water-supply of London. The public ought persistently to bear in mind, and make due allowance for the fact, that the monthly reports to the Registrar-General are furnished by a chemist eminently hostile to the present riverian supply; and one whose views and startling modes of statement were alike discountenanced by the late Royal Commission when having his reports and evidence under consideration." Altogether, the public must feel very helpless in this pretty quarrel between the water



examiners, and must be much puzzled to know what to think about the character of the water-supply. It is only fair to note that Messrs. Crookes, Odling, and Tidy are men of marked position, and that in their report, which is addressed to "The Water Examiner, Metropolis Water Act, 1871," they say, "Our examinations are made, as you are aware, under instructions from the water companies; the collection of samples, however, as well as the methods of analysis, and the form of publication of the results, being left entirely to ourselves, the companies taking no part in the matter beyond bearing the expenses."

THE ARMY MEDICAL DEPARTMENT.

THE following is a list, in order of merit, of the twenty candidates who were successful for appointments as Surgeons in Her Majesty's British Medical Service at the competitive examination in London on August 13, with the number of marks obtained by each:—

	Marks.		Marks.
O. G. D. Bradshaw . . . . .	2410	F. S. Henston . . . . .	2100
M. Kelly . . . . .	2375	R. J. A. Durant . . . . .	2055
H. H. Pinching . . . . .	2355	G. F. Gubbin . . . . .	2030
R. J. Geddes . . . . .	2350	J. P. Myles . . . . .	1980
W. Kelly . . . . .	2185	R. Lesly . . . . .	1975
D. V. O'Connell . . . . .	2170	H. P. Birch . . . . .	1975
A. Dodd . . . . .	2140	M. O'D. Braddell . . . . .	1880
G. Wilson . . . . .	2121	J. J. C. Donnett . . . . .	1870
J. M. Reid . . . . .	2105	H. M. Sloggett . . . . .	1845
T. B. Winter . . . . .	2105	C. S. Robinson . . . . .	1755

CEREBRAL LOCALISATION.

THE centre for movements of the thumb has been indicated on more than one occasion by the autopsy of a patient who had had paralysis limited to the thumb, and we now have, at the hands of M. Lepine (*Revue de Médecine*, July, 1883), pathological evidence brought before us of the site of the centre for the movements of the fingers. The case in question was that of a young woman the subject of phthisis, in whom partial paralysis of the right arm supervened suddenly one night, the movements of flexion and extension of the hand being lost, as also those of the fingers, but the thumb showed no loss of power at all. There was no impairment of sensation in the hand. The patient died the next day, and at the post-mortem examination there was found on the external aspect of the left hemisphere a group of tubercular granulations, forming a mass about the size of a bean, situated in the furrow which separates the ascending parietal convolution from the parietal lobule; it was four centimetres from the median fissure between the two hemispheres, and five centimetres from the fissure of Sylvius. It was situated in the meninges, and was easily stripped off with these from the surface of the brain. At the point where it rested there was a cup-shaped depression of the grey matter, but no loss of substance, and it must therefore be presumed that the symptoms were due to the anæmia caused by the pressure. Tubercular affections of the brain are so frequently multiple or widely diffused that it is not often they can be of much use in advancing our knowledge of the functions of the different parts of the cerebral cortex. The present case is therefore unusual in that respect as well as in the site of the lesion.

OPENING OF THE NORFOLK AND NORWICH HOSPITAL.

ON Monday last the new buildings of the Norfolk and Norwich Hospital, the foundation-stone of which was laid by the Prince and Princess of Wales in July, 1879, were publicly opened by the Duke and Duchess of Connaught, in the presence of a large assembly of spectators. The usual formalities having been gone through, terminating with an address to their Royal Highnesses, a specially

designed silver key was presented to the Duke as a memento of the day's proceedings, and also a handsomely bound little work giving an account of the birth and parentage of the new Hospital. In acknowledging the address, the Duke of Connaught congratulated the assembly on the completion of such an important hospital, built with all the improvements which modern science could suggest. It was gratifying, he said, to reflect on the immense amount of good which the former Hospital had already conferred on the sick and maimed of the county and city, and, under Divine blessing, he hoped that the present Hospital might prove as great a benefit in the future as the former one had been in the past. The Duke having formally declared the new buildings open, the Royal party inspected the occupied wards, as well as the west portion of the Hospital. They next visited a bazaar, on a very extensive scale, which was being held in the east portion of the institution, with the view of raising £5000—the sum still required to clear the new buildings from debt, their total cost having been about £57,000. To this bazaar the Prince of Wales had contributed a number of valuable birds and animals from his collection at Sandringham.

THE SOUTHALL PARK DISASTER.

DR. DIPLOCK has decided that the fragments of calcined human bones discovered among the ruins of the Southall Lunatic Asylum are not sufficient to justify him in holding an inquest upon them. It is understood that Dr. McDonald, who has sedulously watched the search among the ruins, was of opinion that the discovery of some of the vertebral bones was enough to justify the opening of an inquest; but Dr. Diplock holds "that inquests cannot be taken upon the bones of the persons found in the ashes of the house." It is said that the Commissioners in Lunacy will institute an inquiry into the water-supply and appliances for extinguishing fire at Southall Park. Since we last wrote upon this subject it has been authoritatively stated that within a few yards of the house there is a well, which has never been known to fail in the driest summers, and from which a constant stream of water had been thrown on the burning ruins by a double manual pump for two days and nights without once failing. But unfortunately the existence of this well was not thought of at the time of the fire.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-second week of 1883: terminating August 8, was 998 (518 males and 480 females), and of these there were from typhoid fever 37, small-pox 4, measles 30, scarlatina 5, pertussis 13, diphtheria and croup 24, erysipelas 5, and puerperal infections 5. There were also 49 deaths from tubercular and acute meningitis, 183 from phthisis, 22 from acute bronchitis, 39 from pneumonia, 136 from infantile athrepsia (42 of the infants having been wholly or partially suckled), and 38 violent deaths (33 males and 5 females). The mortality still keeps low, but it is the normal mortality of this time of the year; for the mean of the same week for the last five years also gives 998 deaths, or 23·17 per 1000 of inhabitants of Paris. This proportion, however, calculated on the census taken two years ago (since when the population has increased), is somewhat higher than the reality. Typhoid fever has caused 7 more deaths than during the present week, while the admissions have risen from 98 to 132; the admissions for diphtheria also having risen from 19 to 30. The births for the week amounted to 1268, viz., 645 males (481 legitimate and 164 illegitimate) and 623 females (460 legitimate and 163 illegitimate): 92 infants were either born dead or died within twenty-four hours, viz., 52 males (38 legitimate and 14 illegitimate) and 40 females (27 legitimate and 13 illegitimate).



## THE RICHMOND WATER-SUPPLY.

THE utter failure of the arrangements for supplying Richmond, in Surrey, with water has made itself painfully notorious during the last few days. For two whole days we learn that the greater part of the town was left entirely without water, and some portions for four or five days. It is unnecessary to point out the great dangers to public health that are likely to arise from a dearth of water, especially at the present season of the year. It appears that the Vestry have been for some years past engaged in sinking a new artesian well to supplement the existing source, and after the expenditure of a very large sum of money they were unable to give any estimate as to the time when the water would probably be reached. Under these circumstances it is not surprising to find that public opinion is being roused in the town, and that a meeting of ratepayers will shortly be held to endeavour to obtain a Government inquiry as to the mismanagement of the town.

## NEW SYDENHAM SOCIETY.

THE twenty-fifth annual meeting of this Society was held in Liverpool on the 3rd inst., when the following report was presented and adopted:—"In presenting their report for the past year the Council has little to state beyond the record of the works published, and the announcement of those in preparation. The production of the *Lexicon of Medical Terms* has been continued with as much speed as circumstances have permitted, and two numbers have, as usual, been issued during the year. The issue for the current year will probably consist of—a fasciculus of the *Atlas of Pathology*; selections from the *Works of Duchenne* (of Boulogne), edited by Dr. Vivian Poore; two or more parts of the *Lexicon of Medical Terms*; the first volume of Hirsch's work on *Historico-Geographical Pathology*, translated by Dr. Creighton; a volume of *Selected Monographs*, of which *Senator on Albuminuria* and *Landau on Movable Kidney* will form part. The works which have been issued during the past (twenty-fourth) year are the following:—98. *Stokes on Diseases of the Chest*; 99. *Atlas of Portraits of Skin Diseases*, fasciculus xvi.; 100. *The Collected Works of Dr. Warburton Begbie*; 101. *Lexicon of Medical Terms*, part vii.; 102. *Charcot, Localisation of Cerebral Disease*; 103. *Lexicon*, part viii. Amongst those which are in preparation are—a fasciculus of the *Atlas of Portraits of Skin Diseases*; the *Collected Works of Dr. Peacock*, with memoir and portrait; one or more volumes of *Selected Clinical Lectures from German sources*. The Society's accounts for the year have been audited as usual, and a balance-sheet prepared." The following is the list of officers for 1883-84:—*President*: \*William Bowman, Esq., F.R.S., LL.D. *Vice-Presidents*: \*Henry W. Acland, M.D., F.R.S., LL.D., Oxford; G. W. Balfour, M.D. Edinburgh; Robert Barnes, M.D.; \*E. R. Bickersteth, Esq., Liverpool; W. H. Broadbent, M.D.; John Cleland, M.D., Glasgow; Sir W. W. Gull, M.D., F.R.S., Bart.; Joseph Lister, Esq., F.R.S.; Sir William Mac Cormac; Robert McDonnell, A.B., M.D., Dublin; Sir James Paget, F.R.S., LL.D., Bart.; \*Sir G. H. Porter, M.D., Dublin; \*James Russell, M.D., Birmingham; William Rutherford, M.D., F.R.S., Edinburgh; Hermann Weber, M.D.; Sir T. Spencer Wells, Bart. *Council*: James Andrew, M.D.; J. H. Aveling, M.D.; Thos. Barlow, M.D.; \*Richard Barwell, Esq.; R. L. Bowles, M.D., Folkestone; \*J. Crichton Browne, M.D.; Lauder Brunton, M.D., F.R.S.; Thomas Buzzard, M.D.; \*W. B. Cheadle, M.D.; W. Cholmeley, M.D.; W. Clement Daniel, M.D., Epsom; J. Langdon H. Down, M.D.; J. Matthews Duncan, M.D.; John Easton, M.D.; Balthazar Foster, M.D., Birmingham; \*T. F. Grimsdale, Esq., Liverpool; C. J. Hare,

M.D.; G. E. Herman, M.D.; T. R. Jessop, Esq., Leeds; Thomas Keith, M.D., Edinburgh; \*G. H. Kidd, M.D., Dublin; Stephen Mackenzie, M.D.; \*S. W. North, Esq., York; W. B. Page, Esq., Carlisle; William Roberts, M.D., Manchester; G. H. Savage, M.D.; J. W. F. Smith-Shand, M.D., Aberdeen; Septimus W. Sibley, Esq.; \*E. R. Townsend, M.D., Cork; \*C. Whipple, Esq., Plymouth. *Treasurer*: W. Sedgwick Saunders, M.D., 13, Queen-street, Cheapside, E.C. *Auditors*: E. Clapton, M.D.; S. Fenwick, M.D., F. M. Corner, Esq. *Honorary Secretary*: Jonathan Hutchinson, Esq., F.R.S., 15, Cavendish-square, W. (Those marked with an asterisk were not in office last year.)

## THE ZYMOTIC DEATH-RATE IN ENGLISH HEALTH-RESORTS.

IN accordance with his usual custom, the Registrar-General for England, in his return for the June quarter of the present year, gives the statistics of mortality for forty-six of the English holiday- and health-resorts. The mean annual death-rate in the forty-six health-resorts during the second quarter of the present year was 17.9, and the zymotic rate 1.28 per 1000. These rates contrast favourably not only with those for all England and Wales (which were 20.1 and 18.9 respectively), but also with those of the rural districts generally. The rates last quarter in England and Wales, exclusive of the seventy-eight chief towns or urban districts, were 19.2 from all causes, and 1.7 from the principal zymotic diseases. It is but just to these health-resorts, the Registrar-General observes, to note that their death-rates are, doubtlessly, in some degree higher than they would otherwise be, owing to the very fact of their being health-resorts, or places to which persons in weak health flock in considerable numbers in the hope of receiving benefit; but, again, this affects the general death-rate much more than the death-rate from zymotic diseases. The zymotic death-rate per 1000 was 0.00 in Deal and Walmer, Littlehampton, Bognor, Tenby, and Harrogate. It was under 1.00 per 1000 in Whitby, Yarmouth, Southend, Herne Bay, Margate, Dover, Hastings and St. Leonards, Eastbourne and Seaford, Brighton, Exmouth, Teignmouth and Dawlish, Torquay, Ilfracombe, Beaumaris, Llandudno, Rhyl, Southport, Blackpool and Fleetwood, Clifton, Malvern, Leamington, and Buxton. In Lowestoft, however, it was 2.23, mainly owing to measles; in Ramsgate, 2.24, chiefly from "fever"; in Folkestone, 4.95; in Aberystwith, 3.11; and in Bangor, 8.48—in each case mainly due to the mortality from whooping-cough. In the remainder of the forty-six watering-places the zymotic death-rate was over 1.00 and under 2.00.

## THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THIS body opened its twelfth session at Rouen on the 16th inst., the meeting being attended by great numbers, although not by many of the leaders in science. Medicine, as usual, was chiefly represented by Prof. Verneuil, M. Desprès having declined the invitation to what he terms the "scientific fair." M. Masson, the treasurer of the Association, gave a flattering account of its financial position, its annual income and capital having greatly increased, while it was able to vote 13,000 fr. for scientific grants. Comparing the progress of this Association with that of the British, upon which it was modelled, M. Masson pointed out that the capital of the two Associations was nearly the same, although the British has reached the fifty-second year of its existence, while the French is only just entering upon its teens. And while the British Association only numbers 3500, the French has already 4000 adherents. "When we have reached our fifty-second year," M. Masson went on to say with the enthusiasm befitting the eulogist of so youth-



ful an institution, "we shall certainly be able to dispose of a capital of several millions; and the French Association, which already draws to its bosom so large a number of illustrious personalities, will enjoy an immense influence over the scientific progress of our country, and consequently of the entire world." Heartily do we hope that the Association, at the end of the half-century thus prevised, may feel none of the damping effects of old age!

#### LESIONS OF THE FOOT IN TABES.

THE changes which take place in the long bones and large joints of the body in tabes are, thanks to the labours of Charcot, now universally known and recognised. To these we have now to add a somewhat similar affection of the bones of the foot owning the same cause. At a recent meeting of the Société Anatomique de Paris (*Progrès Médical*, 1883, No. 31), MM. Charcot and Féré read a communication on "The Tabetic Foot." The clinical characters of this condition are briefly the following:—The inner border of the foot shows a considerable thickening from the ankle to the tarso-metatarsal articulation or thereabouts, so that the arch of the foot disappears; the metatarsus appears to be dislocated outwards, so that an angular projection is formed on the inner side of the foot. Pain is hardly ever present, and neither redness nor crepitation in the joints has been hitherto recognised. MM. Charcot and Féré have had the opportunity of examining one foot post-mortem, when they found that the inferior articular surface of the astragalus and the articular surface of the os calcis were eroded and worn, their margins presenting small vegetations; there was a transverse fracture of the astragalus through the neck; the scaphoid and cuboid were so much worn as to be hardly recognisable. The first cuneiform bone was increased in thickness from above downwards, as also was the first metatarsal bone, to which it was ankylosed. The second cuneiform bone was likewise distorted and ankylosed to the second metatarsal bone. The third cuneiform bone was represented simply by a number of small fragments. All the bones of the tarsus and metatarsus had a spongy appearance, and were unusually light and friable.

#### TYPHOID FEVER AT A WATERING-PLACE.

DR. BLAXALL has recently inquired into an outbreak of typhoid fever which was believed to have originated in a lodging-house at Weston-super-Mare, and has made a report to the Local Government Board on the sanitary condition of the lodging-houses generally in that town. The facts in regard to the outbreak are very simple. Two families coming from different parts of the country spent a portion of last summer in the same lodging-house in Weston-super-Mare. One family left on August 8, the other on August 10. Out of the fourteen persons in these two families no less than eight were attacked with typhoid fever within fifteen days of leaving Weston, and three cases proved fatal. There was no reason to believe that in either instance the disease was contracted after the family left Weston, and the fact that both families occupied the same house at the same time pointed strongly to it as the probable source of infection. The result of the investigation into the sanitary condition of this lodging-house disclosed the fact that a closet situated in the back yard, and discharging into the sewer, was unprovided with any water for flushing. The water-supply of the house was derived from a pump in the scullery, the water from which was analysed by the local medical officer of health as soon as the cases of typhoid fever were brought under his notice, and found to be contaminated, the well was thereupon closed. The drain from the scullery sink received the soil-pipe from the indoor water-closet, and opened

into an eject which also received the soil-pipe from the closet in the yard. This eject was built of brick and covered in. On being opened it was found to be filled with offensive decomposing excrement, the soil-pipe leading into it being completely blocked. Unfortunately, Dr. Blaxall was unable to ascertain the exact relation of the sink-drain to the well, as the landlord would not permit the latter to be reopened; but there could be very little doubt that the former was the cause of the contamination of the well-water. Dr. Blaxall learnt that in houses in the same row the wells were much influenced by the tide, the water in them falling with the rising tide, and rising again with the fall of the tide. No other cases of typhoid fever were known to have occurred in Weston for several months previously, so that the disease would seem to have originated in that particular house. Two other points are worth noting as bearing on the cause of the outbreak, viz.:—1. This was the only house in the row using well-water. The wells belonging to the other houses had previously, at different times, been found contaminated. 2. A third family, who were staying in the same lodging-house during the same period, refrained from drinking the water, and were none of them attacked with typhoid fever. The conclusion, then, is almost irresistible that the outbreak was due to the use of contaminated well-water for drinking purposes, but as to how the specific typhoid fever-poison (if there be such) made its way into this water there is no evidence to show.

#### THE SANITARY INSTITUTE OF GREAT BRITAIN.

THE Autumn Congress for 1883 of the Sanitary Institute of Great Britain will be held at Glasgow, from September 25 to 29, in the St. Andrew's Halls, under the presidency of Professor G. M. Humphry, M.D., F.R.S., who will deliver the opening address on Tuesday, September 25, at 8 p.m. The Congress will be divided into three sections:—I. Sanitary Science and Preventive Medicine: President, Professor W. T. Gairdner, M.D., LL.D.; Hon. Secretaries, Councillor J. A. Russell, M.A., M.B., B.Sc., Kenneth M. Macleod, James Christie, A.M., M.D. II. Engineering and Architecture: President, Professor T. Roger Smith, F.R.I.B.A.; Hon. Secretaries, H. H. Collins, F.R.S., B.A., Alexander Frew, C.E., A. Lindsay Miller, architect. III. Chemistry, Meteorology, and Geology: President, R. Angus Smith, Ph.D., F.R.S.; Hon. Secretaries, W. R. E. Coles, James J. Dobie, D.Sc., A. Buchanan, M.A., F.R.S.E., J. B. Murdoch. The Council invite papers on the subjects belonging to the several sections, and will welcome the personal co-operation and support of all who are interested in the diffusion of sanitary knowledge.

It was officially stated in the House of Commons, on Thursday last week, that Surgeon-General Hunter, M.D., who was sent out to Egypt by the Government, has instructions to report on the whole subject of the cholera outbreak there, and that his reports will be presented to Parliament.

THE Government having proved powerless to so regulate the course and progress of business in the House of Commons as to afford time and opportunity for a discussion on the Report of Lord Morley's Committee, Mr. Gibson has given notice that he will call attention to the Report early next session.

THE fifty-third annual meeting of the British Association for the Advancement of Science will be held at Southport from September 19 to 27. Dr. Cayley, Sadlerian Professor of Mathematics in the University of Cambridge, is President for the year.



THE sum of 830,000 marks, subscribed by Germany as a compliment to the Crown Prince and Princess on the occasion of their silver wedding, has been appropriated for the benefit of various sanitary and benevolent institutions in Germany.

Two chemists at Nottingham have been fined £5 each, on a prosecution by the Health Committee of the Corporation, for having sold adulterated lime-water. On analysis, the lime-water was found to be deficient in lime to the extent of over 40 per cent. Both the defendants pleaded guilty.

A CASE of death from a wasp sting has just occurred in the person of Miss Arkwright, aged fifty-five, of Mark Hall, near Harlow, who died within half an hour after receiving the sting on her little finger. At the inquest it was stated that she fainted almost immediately after being stung, and never recovered consciousness. Dr. Day deposed that death ensued from syncope, produced from excessive pain caused by the wasp sting.

**INFANTS' FOODS.**—A lecture on this subject, delivered before the College of Physicians, Philadelphia, by Dr. Leeds, and published in full detail in the *Phil. Med. News*, July 21, is terminated by the following conclusions:—

1. Cow's milk is in no sense a substitute for woman's milk.
2. Attenuation with water alone is inadequate, and chemical metamorphosis or, mechanically, the addition of some inert attenuant is required, in order to permit of the ready digestibility of cow's milk.
3. The utility of manufactured infants' foods is to act as such attenuants, and as such they take the place of simple barley- or oatmeal-water, sugar, cream, arrowroot, etc., used in former times.
4. The results of both chemical and physiological analysis are opposed to any but a sparing use of preparations containing large percentages of starch.
5. It is eminently probable that, besides acting as attenuants, the matters extracted in the preparation of barley- and oatmeal-water, and still more the soluble albuminoid extractives obtained at ordinary temperatures (whereby coagulation is prevented) by Liebig's process, have a great independent value of their own. For this reason, instead of employing starch, gum, gelatine, sugar, etc., the use of a natural cereal extractive, containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired leader, Liebig, himself advocated, is in accordance with the development of science since his death.
6. The use of food made of equal parts of milk, cream, lime-water, and weak arrowroot-water, as employed for years by Dr. Meigs, is sustained by theory, analysis, and practice. It provides for the increase of fat to an amount comparable to that contained in human milk. It adds alkali to permanent reaction, and to convert casein into soluble albuminates. It adds a little bland attenuant. And if, in addition, the amount of milk-sugar were raised, and, instead of arrowroot-water, barley- or oatmeal-water were substituted, as the case demanded, it would approach still more nearly to the conditions required.

**A MEDICAL CENSUS AT PARIS.**—The Préfet de Police of Paris has had an exact census taken of all the practitioners in Paris at the present time. There are in Paris and the communes of the department of the Seine 1915 doctors of medicine, 12 doctors of surgery, 83 *officiers de santé*, 43 foreign doctors, 1500 midwives, 845 *pharmaciens*, and 95 veterinary doctors. The eldest doctor in Paris is M. Ségalas, who obtained his diploma in 1817, and has therefore been in practice during sixty-six years; and next to him comes M. Ricord, born in 1800 and made a doctor in 1826. The eldest midwife received her diploma in 1815, and has continued to practise ever since. She states that during her sixty-eight years of practice she has had an average of 100 cases per annum, having therefore brought into the world 6800 infants. Among the doctors of medicine two are women, one a French woman and another a Russian. These figures are, of course, exclusive of the host of illegal practitioners of all kinds to be found in Paris.—*Rev. de Thérapeutique*, August 1.

## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF LORDS—THURSDAY, AUGUST 16.

*The Diseases Prevention (Metropolis) Bill* was read a third time and passed.

HOUSE OF COMMONS—THURSDAY, AUGUST 16.

*Irish Police Surgeons.*—In reply to a question from Mr. Leamy on this subject, Mr. Trevelyan again stated that the rule under which these appointments are given to dispensary doctors is not an invariable one, and that it had not heretofore been observed in Waterford and some other large towns. Most constabulary cases, other than fever cases, were treated in barracks, if slight, or sent to St. Stephen's Hospital, Dublin, if serious. The County Inspector thought it best to have the men all under the care of one surgeon, and Dr. Connolly, who has been appointed, is physician to the Fever Hospital, where many of the men are, from time to time, treated.

*Sewer Ventilation.*—Replying to Mr. J. Talbot, Sir C. Dilke said it was, generally speaking, the duty of the local authority to attend to the ventilation of the sewers in the roadways; and in London that authority was the Metropolitan Board of Works. He believed that the opinion of scientific men was opposed to the system of carrying the ventilation of the sewers above the street level by means of shafts. There was great danger lest, in altering the system of ordinary traps, sewer-gas should escape into dwelling-houses.

*Vaccination Disasters.*—Mr. Hopwood asked the Secretary of the Local Government Board whether his attention had been called to the cases of five children now suffering severely at Deptford from syphilis communicated by vaccination from one other child.—Mr. G. Russell replied that inquiry had already been made into the matter; and the Board are informed that there is not the smallest reason for saying that those children had syphilis. Four, not five, children vaccinated, with seventeen others, from one vaccinifer, got more or less of a common skin disease—eczema—afterwards. Each of the four children lived in a state of squalor. The other seventeen children remained well.—Mr. Hopwood also asked about two children in Shoreditch who had, as alleged by their parents, died from vaccination; and Mr. G. Russell stated, in reply, that both the children mentioned died from diarrhoea, and the one case had nothing whatever to do with the other. The Board were informed that the mother of the child Kerridge had no idea of attributing the death to vaccination: the child had not had any eruptions. The other child (Howden) was weakly at the ordinary age for vaccination, and the operation was deferred till it was eight months old. It had some eruption afterwards, but no abscesses. Death was caused by diarrhoea three months later. It was reported that the medical practitioner in attendance had said that the lymph used had to do with the child's subsequent illness; but he denied having said anything of the kind, and stated that he had a great number of cases of diarrhoea in his practice at the time. Inquiries had been made as to other children vaccinated from the same vaccinifers, and no irregularities in the results could be discovered.

*The Insanitary Condition of the Regent's Canal.*—Replying to a question from Mr. D. Grant, Sir C. Dilke said if it was true, as stated, that the Zoological Gardens drained into the Regent's Canal, and that the state of the canal was a danger to the public health, he did not see why the local authority should not proceed against the Company under the ordinary Act for the removal of nuisances.

*Vaccination in the Army.*—Mr. A. O'Connor asked the Secretary of State for War under what authority the following regulations for the Army Medical Department were issued:—"Every recruit without exception will be vaccinated on joining the headquarters or dépôt of the corps to which he belongs, unless the operation is certified to have been already successfully performed subsequently to his enlistment"; and "The medical-history sheet of every soldier will furnish information whether he has been revaccinated; and medical officers will revaccinate those cases where no such record exists."—Lord Hartington, in reply, said: The Secretary of State for War is responsible to the Crown and to Parliament for the efficiency of the Army, and has always been held to have authority to issue such regulations as are necessary for



securing that object, including, of course, its maintenance in health. The fourteenth paragraph of Section 14 of the Queen's Regulations and Orders for the Army, issued under the sanction of Her Majesty, lays down that "medical officers during duty with troops will in all medical and sanitary duties be guided by the Army Medical Regulations," which contain the paragraph quoted, and thus, I conceive, give to the Medical Regulations the same authority as the Queen's Regulations themselves.—Mr. A. O'Connor considered that the Secretary had acted *ultra vires*, and he should therefore oppose any charge in connexion with vaccination in the Army.

SATURDAY, AUGUST 18.

*Army Medical Department.*—On the vote for Medical Establishments and Services, Sir H. Fletcher called attention to the divergence of opinion as to the medical services in the Egyptian campaign. He regretted the abolition of the regimental system of Army Medical Service, and thought that the new system worked most unsatisfactorily in some respects. It would no doubt be impossible to return to the old system in its entirety; but he contended that it ought to be reverted to to the extent of attaching a medical officer to a regiment for, at the least, five years. He protested against the extension of the present system to the Household Troops. He complained of the unsatisfactory state of the Army Hospital Corps, and considered that the maintenance of discipline in hospitals necessitated the appointment of military commandants.—The Marquis of Hartington intervened for a few minutes to make a statement which he hoped might shorten the discussion on the vote. He had said on a previous occasion that as soon as possible after the recess it was proposed to go through the recommendations made by Lord Morley's Committee, and consider to what extent they could be adopted. The responsibility of any decision arrived at must rest ultimately with the Government; but, at the same time, considering that the House had not had an occasion to discuss the recommendations of the Committee, he was prepared to undertake that no important changes involving the issue of a Royal Warrant should be made until an opportunity had been afforded the House of discussing the matter.—Mr. Acland and Colonel Alexander made some general remarks on the Army Medical Service and on the Army Hospital Corps; and Dr. Lyons complained of the sons of army medical officers being ineligible for Queen's cadetships.—After which, the Marquis of Hartington said he thought the discussion of Lord Morley's report had better be postponed until the action the Government proposed to take on it next year should be brought forward early in the session. He had carefully studied all the evidence in the report of Lord Morley's Committee on the subject of the regimental and departmental systems, and he had failed to see in any part of the report any proof that the present system had had an evil effect during the Egyptian campaign. As to the Army Hospital Corps, it was impossible in times of peace to keep in idleness an army hospital corps sufficient to deal with a great war; but he agreed that every effort should be made to increase as rapidly as possible the reserve force of the corps. He pointed to the remarkable success of the Army Medical Service in the preservation of life—the main object of the service. As to the exclusion of the sons of medical officers from the Queen's cadetships, while the converse prevailed with regard to the sons of so-called combatant officers, he said the object in the case of the latter officers was that their sons might be trained for the same profession as their fathers; but the same reason did not hold good in the case of medical officers.

*Vaccination in the Army.*—In reply to Mr. A. O'Connor, Lord Hartington said he had made inquiries, and had been unable to find a single instance of a recruit having objected to being revaccinated. The legal right of the Secretary of State to require every recruit to be revaccinated had never been raised in a court of law. But he imagined it was undoubtedly within the power of the Secretary of State, who was responsible to Parliament, to advise Her Majesty to make any order which would, according to the best medical opinion, tend to promote the health of the Army.

*The Contagious Diseases Acts.*—A long, discursive, and somewhat disorderly discussion took place regarding the administration of these Acts, in the course of which Lord Hartington observed that a new argument had been introduced, viz., that the towns to which the Acts had applied had

a right to protection against the consequences resulting from the introduction of large numbers of soldiers and sailors into those towns. To this contention he replied that the Acts gave no powers whatever to the police to suppress vice. That they had an indirect effect in that direction was true; but when the Acts were passed that effect was not contemplated. He believed that the preservation of public order and decency could be secured independently of the Acts. He regretted the resolution which the House had arrived at in regard to the Acts; but it was useless to exaggerate the consequences of what had taken place. A memorial had been presented, in which it was stated that, in consequence of the suspension of the Acts, no women had since entered the hospitals. The fact was that there were 133 women now in hospital, almost all of whom had entered voluntarily. As that was half the number that were in hospital before the Acts were suspended, it could not be said that the suspension had made the Acts inoperative.—Mr. Bulwer said he was on the Committee appointed to consider the operation of the Acts; and when he joined it he was strongly prejudiced against the Acts. But he had not served upon the Committee long before he came to the conclusion that the opposition to the Acts was based upon a mass of falsehoods. The cases adduced of maladministration in connexion with the measures, and of injustice, had no foundation whatever; while as to the good effects of the Acts there could be no doubt.

HOUSE OF LORDS—MONDAY, AUGUST 20.

The Royal Assent was given, by commission, to the following Bills: Payment of Wages in Public-Houses Prohibition Act, 1883, and the Diseases Prevention (Metropolis) Act, 1883.

HOUSE OF COMMONS—MONDAY, AUGUST 20.

*Inoculation by Vaccination.*—Replying to a question from Mr. Hopwood, Mr. G. Russell said that it was a fact that an operation professing to be vaccination could be made the means of communicating syphilis, and that fact was well known, chiefly through some foreign experiences and Dr. Cory's experiment; but it was not the fact, in general terms, that syphilis was inoculated by vaccination. The committee to which Dr. Cory's case was referred had completed their inquiry and made their report, which would appear in the annual report of the Medical Officer of the Local Government Board.

TUESDAY, AUGUST 21.

*Pollution of the Thames.*—Replying to Mr. Labouchere, Sir C. Dilke admitted that the drainage of Kingston, Richmond, and other localities below the intake of the water companies is still discharged into the Thames. The quantity of the water taken by the companies was, however, comparatively small, being not more than a seventh of the ordinary dry-weather flow over Teddington Weir, while the volume of the tidal water of spring tides was immensely greater. The flow of the river through the sewage-polluted parts could hardly, therefore, be seriously lessened by the quantity taken by the London water companies. The Lower Thames Valley main sewerage district had been constituted for the purpose of providing a system for the disposal of the sewage without contravening the provisions of the Thames Conservancy Acts. But, unfortunately, works for that purpose have not yet been carried out. The Local Government Board had granted the Main Sewerage Board another year's protection from liability to prosecution under the Thames Conservancy Acts, but with a distinct intimation that unless it could be satisfactorily shown, before the expiration of that period, that the Sewerage Board were taking active steps to carry out the purposes for which they were constituted, they would probably not easily obtain any further period of grace.

*Army and India Medical Officers.*—In reply to Mr. Acland, Lord Hartington said: The examination at the conclusion of the Netley course of instruction is, in the case of the Army Medical Department candidates, a pass examination merely, their relative precedence having been settled by the results of the entrance examination. With the Indian Army candidates the Netley course is competitive, and aids in determining the position of the candidates during subsequent service. The system for the British officers was deliberately adopted, after a very full inquiry, by a Committee appointed to consider the causes of the unsatisfactory supply of candidates for the Army Medical Service, and the Committee took evidence on this particular point.



## FROM ABROAD.

## IODIDE OF POTASSIUM IN NON-SYPHILITIC NERVOUS DISEASE.

DR. SEGUIN read an interesting paper at the New York Neurological Society (which he has since published in his *Archives of Medicine* for June) on "The Efficacy of Iodide of Potassium in Non-Syphilitic Organic Disease of the Central Nervous System," in which he protests against the so generally admitted belief in the *specific* action of the iodide in syphilis. He is, in fact, no believer in what he terms the "comfortable" doctrine of the specific action of any remedies—a doctrine which he regards as fallacious and unscientific as it is comfortable,—and agrees with those who think that remedies act on the organism as a whole, or on its apparatuses, or on some of its tissues, or on its constituent chemical ingredients; in a *physiological* way, *i.e.*, by and through the operation of chemical and physiological laws already operative in the animal body. Many, however, believe in the specific action of the iodide, regarding it as a sort of reagent in syphilis. In their view, the result of its employment in the presence of certain symptoms determines whether these are due to a syphilitic origin or not, and that in spite of the denial of the patient or the history of the case. Such a view may be attended by dangerous consequences. On the one hand, it prevents the administration of the iodide in full doses in cases of organic cerebral disease where there is no indication of syphilis; and, on the other hand, after the symptoms have yielded to the iodide, the patient is regarded as having carelessly or erroneously deceived the practitioner with regard to the existence of syphilis, and is liable to receive further erroneous advice or treatment under that supposition.

In the present paper Dr. Seguin confines himself to a clinical view of the question obtained from the examination of certain cases which have come under his notice, and which he believes exhibit the efficacy of the iodide in non-syphilitic nervous disease. These are nine in number, which he has arranged in two groups. In the first group, consisting of three cases of organic disease of the brain, many threatening symptoms were relieved, in some of them immediately, and on different occasions, by the free use of iodide. In all of these post-mortem examinations were made, and the gross lesions found. In all of them there was no clinical or histological evidence of syphilis. The second group consists of six cases, which are still living, some cured. "I divide this group into two classes. The first is made up of three cases of organic cerebral disease in the adult, two of them cured, and the third twice relieved of most of his symptoms by the iodide. The other class is composed of three cases of basal meningitis with optic neuritis in little children, who recovered rapidly while under the influence of the remedy. I attach much less importance to these infantile cases, because of the doubt that must remain as to there having been anything more than optic neuritis. Still, they have a certain value in a purely clinical paper like this one."

Dr. Seguin relates these cases in minute detail, and replies in advance to some of the objections that may be adduced to the cogency of their testimony. In regard to the doses employed, he has increased these much of late years, and observes that it is surprising how well patients of all ages will bear doses of from 50 to 150 drops of a saturated solution three times a day, without the production of iodism or gastric catarrh. "I give it largely diluted, in from a half to a full tumbler of water, and always on an empty stomach, to diminish the risk of decomposition. In the last two or three years I have adopted a plan which I think further assists immediate absorption of the iodide as such—*viz.*, the use of Vichy instead of common water as a vehicle—or, as a substitute for poor patients, a solution of bicarbonate of soda. I may add that in several patients digestion has been improved by the iodide. Even if the iodide cannot always cure organic disease of the brain, it seems to relieve symptoms. If by the free use of such a remedy—one not directly harmful—we can diminish intracranial tension, remove œdema, or perhaps check the growth of some neoplasm, thereby relieving pain and other distressing symptoms, would not this be a gain to our therapeutics?"

## EMPLOYMENT OF THE FORCEPS.

Dr. Elliot Richardson read a paper upon this subject before the Philadelphia Medical Society, the general tenour of which may be judged of by the concluding paragraph:—"My object in writing this paper is to call attention, in this age of most free, if not reckless, use of the forceps, to what we are doing in all its bearings: to compare ourselves with those who were at least our equals in the past, and to ask whether they were all wrong and we altogether in the right. To repeat what I have already said, while conservatism is not always wise, neither is all progress improvement. While I would not hedge the forceps round with rules which would often restrict its proper use, I submit that teachers in the present day err in not impressing upon the minds of their auditors with sufficient emphasis the danger attendant upon the imprudent use of the forceps, particularly when it is applied within the uterus, and in not calling their attention more closely to the value of time, and of the slow, rhythmical succession of the expulsive efforts, whether made by the mother herself, or imitated by the physician with his forceps in so moulding the foetal head and dilating the maternal parts as to preserve the integrity of the tissues of both, without interfering dangerously with the uterus or placental circulation. To my mind there is wisdom in the words of the illustrious Smellie, who more than a century ago wrote the sentence already quoted: 'I did not then recommend the use of the long forceps, because I was afraid of encouraging young practitioners to exert too great force and give their assistance too soon.'"

In the discussion which followed the reading of the paper (*Philadelphia Medical Times*, April 7), approval was almost unanimously expressed of the views it upheld, a general conviction seeming to prevail that the forceps at the present time is not employed with sufficient discretion. Prof. Goodell expressed himself as follows:—"The older he gets the more conservative he becomes in the use of the forceps. He agreed with Baudelocque and Hunter that in the aggregate it had done more harm than good. Men of large experience and special skill may be capable of using it, but many practitioners use it recklessly. It is often applied, he feared, more for the sake of the practitioner than for that of the woman. In his experience many cases of lacerated cervixes and lacerated perineums are due to forceps operations. The main safeguard against such accidents is for young practitioners to remove the blades when the head is pressing on the perineum. It cannot be doubted, however, that in certain positions the forceps may act as a protection against laceration, as, for instance, in the occipito-posterior position, or in anterior positions with too great flexion. He fully agreed with Dr. Mills in reference to the injury occasionally done to the heads and brains of children by forcible compression with the forceps, especially when faultily applied. In using the forceps in difficult cases we should proceed with deliberation, making traction for a short time, and then either loosen the blades, if we stay by the patient, or remove them and go away for a while. On returning, it will be found that the head has become moulded to the pelvic canal, and can be brought down still lower, or delivered."

**COLONIAL DOCTORS.**—In connexion with the Amsterdam Exhibition now being held, there will be an International Congress of Colonial Doctors under the patronage of the King of the Netherlands. They will sit from the 6th to the 8th prox. Several fêtes will be specially organised in honour of the visitors to this interesting Congress.

**MEDICAL STUDENTS IN GERMANY AND SWITZERLAND DURING THE SUMMER SESSION OF 1883.**—The entire number of medical students in the twenty German universities during the summer session of 1883 was 6350, *viz.*, 5973 Germans, and 377 foreigners. During the winter session of 1882-83 there were 5793, *viz.*, 5430 Germans and 363 foreigners. In the four Swiss universities there were during the summer session 541 medical students (484 male and 57 female). Of the 541 there were 387 natives of Switzerland (380 men and four women) and 157 foreigners (104 men and 53 women). In the winter session of 1882-83 there were 543 students (492 men and 51 women), 393 being Swiss (all men).—*Deutsche Med. Woch.*, July 18.



# GENERAL CORRESPONDENCE.

## METAPHYSICS IN PATHOLOGY.

LETTER FROM MR. KENNETH W. MILLICAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Mercier, in an article with the above heading in your issue of August 18, says: "I have called the address a very memorable one, and for this reason—that it is the first attempt to apply the great doctrine of evolution to the question of the origin of specific diseases."

Will you kindly allow me to call Dr. Mercier's attention to a paper "On some Suggestions for a Modification of the Germ Theory of Disease," read before the Medical Society of London in February last year, and published in abstract in the *Lancet* of March 18? Also to a more complete working out of the same idea under the heading of "The Etiology of the Acute Specific Infectious Diseases," a paper read before the Section of Public Medicine at Worcester last year, and published *in extenso* in the *British Medical Journal* of September 30, 1882?

Dr. Mercier will, I think, then see that Dr. Creighton's address is *not* the first attempt to apply the great doctrine of evolution to the question of the origin of specific diseases.

I apologise for taking up your space, and remain

Yours, &c., KENNETH W. MILLICAN.

North Lodge, Kineton, Warwick.

## OBITUARY.

### PROFESSOR PARROT.

THE son of a medical practitioner at Excideuil (Dordogne), Prof. Parrot was born there in 1829, and although he did not receive his diploma until 1857, yet, being a hard worker and capable of great perseverance, he rapidly passed through the various stages of professional distinction. He was made Professor of the Faculty in 1876, and Member of the Academy of Medicine in 1878. He died August 5, and was buried in his native place, all ceremonies having been dispensed with at his grave by his special request. The *Gazette Hebdomadaire*, after mentioning that his death was due to a double pneumonia, incomplete convalescence from which became complicated with disease in the abdomen, goes on to say:—

"His health had always been very delicate, and during his latter years he had not been sufficiently careful of it. Led away by his ardour for anatomical investigations, he passed long hours in the small theatre attached to the Hospice des Enfants Assistés, encumbered with macerating specimens, and engaged in far too prolonged dissections and microscopical investigations. Parrot was indeed a great worker, and his productions were already considerable. At the commencement of his career his *thèse* on Zona excited special attention; and, formerly an *interne* under Beau, he acquired a great predilection for the study of the respiratory and cardio-vascular sounds, concerning which he published several important notes and memoirs. His articles in the 'Dictionnaire Encyclopédique' on asthma, angina pectoris, asystolia, chlorosis, cerebral softening, chromidrosis, and the heart figure among the most important contributions in that great collection. He published also in the *Gazette Hebdomadaire* a memoir on blood-sweats, which is often quoted. Since his appointment to the Hospice des Enfants Assistés his attention has been especially directed to the diseases of children; and his researches on the relations of rickets and certain alterations in the osseous system with hereditary syphilis have excited great attention. They are found summed up, together with many other investigations, in his 'Leçons Cliniques sur l'Athrepsie,' which conferred upon him a place of honour among the masters of infantile pathology. Parrot was one of those ever on the search for new routes, and all that he has published bears a seal of his personality. He disliked the repetition of others, and his mind, like his friendships, had nothing commonplace about it."

## VITAL STATISTICS OF LONDON.

Week ending Saturday, August 18, 1883.

### BIRTHS.

Births of Boys, 1398; Girls, 1254; Total, 2652.

Corrected weekly average in the 10 years 1873-82, 2679.3.

### DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	756	681	1437
Weekly average of the ten years 1873-82, {	827.1	759.1	1586.2
corrected to increased population ...			
Deaths of people aged 80 and upwards ...	...	...	46

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669333	...	8	1	...	2	...	...	...	19
North ... ..	905947	2	10	14	3	4	...	1	1	31
Central ... ..	282238	...	4	1	1	2	1	2	...	10
East ... ..	692738	...	17	8	3	4	...	1	...	19
South ... ..	1265927	...	31	11	2	14	1	5	...	40
Total ... ..	3816483	2	70	35	9	26	2	9	1	119

### METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29.806 in.
Mean temperature ... ..	...	...	...	...	...	62.3°
Highest point of thermometer ... ..	...	...	...	...	...	83.3°
Lowest point of thermometer ... ..	...	...	...	...	...	46.3°
Mean dew-point temperature ... ..	...	...	...	...	...	53.2
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ... ..	...	...	...	...	...	0.07 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 18, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Aug. 18.	Deaths Registered during the week ending Aug. 18.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ... ..	3955814	2652	1437	19.0	83.3	46.3	62.3	16.84	0.07	0.18
Brighton ... ..	111262	65	39	18.3	71.5	50.0	60.0	15.56	0.26	0.66
Portsmouth ... ..	131478	92	52	20.6	...	...	...	...	...	...
Norwich ... ..	89612	68	23	13.4	...	...	...	...	...	...
Plymouth ... ..	74977	42	23	20.2	67.0	48.0	58.1	14.50	0.20	0.51
Bristol ... ..	212779	126	61	15.0	78.0	48.5	59.5	14.72	0.46	1.17
Wolverhampton ...	77557	56	28	17.5	75.5	42.5	57.2	14.00	0.17	0.43
Birmingham ... ..	414946	285	144	18.1	...	...	...	...	...	...
Leicester ... ..	129483	87	53	21.4	76.5	45.2	59.5	15.28	0.19	0.48
Nottingham ... ..	199349	157	89	23.3	78.1	43.5	58.7	14.83	0.16	0.41
Derby ... ..	85574	58	33	21.3	...	...	...	...	...	...
Birkenhead ... ..	89700	58	33	19.4	...	...	...	...	...	...
Liverpool ... ..	566753	375	295	27.2	...	...	...	...	...	...
Bolton ... ..	107862	81	38	18.4	...	...	...	...	...	...
Manchester ... ..	339252	225	170	26.1	...	...	...	...	...	...
Salford ... ..	190465	154	85	23.3	...	...	...	...	...	...
Oldham ... ..	119071	88	48	21.0	...	...	...	...	...	...
Blackburn ... ..	108460	87	47	22.6	...	...	...	...	...	...
Preston ... ..	98584	76	49	25.9	70.0	47.0	56.6	13.67	0.92	2.34
Huddersfield ... ..	84701	47	35	21.6	...	...	...	...	...	...
Halifax ... ..	75591	39	18	12.4	...	...	...	...	...	...
Bradford ... ..	204807	135	67	17.1	72.8	49.1	57.8	14.34	0.37	0.94
Leeds ... ..	321611	253	133	21.6	74.0	48.0	58.9	14.94	0.34	0.86
Sheffield ... ..	295497	219	125	22.1	73.0	44.5	57.7	14.28	0.14	0.36
Hull ... ..	176296	108	54	18.0	77.0	42.0	58.9	14.94	0.14	0.36
Sunderland ... ..	121117	94	61	26.3	77.0	45.0	59.2	15.11	1.79	4.55
Newcastle ... ..	149464	109	68	23.7	...	...	...	...	...	...
Cardiff ... ..	90033	79	28	16.2	...	...	...	...	...	...
For 28 towns ... ..	562959	5915	3342	20.2	83.3	42.0	58.7	14.83	0.41	1.02
Edinburgh ... ..	235946	115	89	19.7	68.8	45.0	57.7	14.28	1.45	3.68
Glasgow ... ..	515589	388	220	22.3	68.0	44.0	57.1	13.95	1.39	4.80
Dublin ... ..	34985	197	167	24.9	67.6	39.5	56.7	13.72	1.51	3.84

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.81 in.; the lowest reading was 29.50 in. on Wednesday morning, and the highest 30.05 in. at the end of the week.



## MEDICAL NEWS.

UNIVERSITY OF EDINBURGH.—Appended is a list of candidates who received the degree of Doctor of Medicine, and the degrees of Bachelor of Medicine and Master in Surgery of this University on Wednesday, August 1:—

## THE DEGREE OF DOCTOR OF MEDICINE.

(With the Titles of the Theses.)

Allan, Francis John, Scotland, M.B. and C.M., 1880—The Etiology of Phthisis Pulmonalis.  
 Ashdown, George William Wetton, England, M.B. and C.M., 1880—Diseases of the Ear.(a)  
 Bain, David Beattie, Scotland, M.B. and C.M., 1872—The Physiological Dynamics of the Skin.(a)  
 Balfour, Isaac Bayley (D.Sc. Edin.), Scotland, M.B. and C.M. (with Second Class Honours), 1877—The Phœnogamic Flora of the Island of Socotra.(b, c)  
 Barbour, Alexander Hugh Freeland (M.A. Edin.), Scotland, B.Sc., M.B., and C.M. (with Second Class Honours), 1879—Spinal Deformity in Relation to Obstetrics.(b, c)  
 Baxter, William, Scotland, M.B. and C.M., 1877—Burns, followed by certain Complications.  
 Berry, John Bright, England, M.B. and C.M. (with Second Class Honours), 1880—Chronic Lead-Poisoning.(a)  
 Blaikie, Robert Henry (M.A. Edin.), Scotland, M.B. and C.M., 1881—Paracentesis Pericardii.  
 Cameron, John, Scotland, M.B. and C.M., 1877—Obstetrics and Gynecology.  
 Craig, James, Scotland, M.B. and C.M., 1872—Scarlet Fever.(a)  
 Firth, Eustace, England, M.B. and C.M., 1880—On Suicide.  
 Fraser, Frederick William Dyce (M.A. Edin.), Scotland, M.B. and C.M., 1878—On the Etiology of Scarlet Fever.(d, e)  
 Fraser, James William, England, M.B. and C.M. (with First Class Honours), 1880—Action of Infused Beverages on Peptic Digestion.(b, c)  
 Hartley, Alfred, England, M.B. and C.M., 1881—Measles.  
 Hassall, John, England, M.B. and C.M., 1876—Epididymitis and Orchitis.(b, c)  
 Hern, John, England, M.B., 1881—Locomotor Ataxia.(a)  
 Illingworth, Charles Rumney, England, M.B. and C.M. (with Second Class Honours), 1877—On the Physiology of the Larynx.(a)  
 Johnston, Robert M'Kenzie, Scotland, M.B. and C.M., 1881—Psoriasis, with special reference to Treatment.  
 Kay, Walter Smith, Scotland, M.B. and C.M., 1877—General Paralysis of the Insane.  
 Lewis, Thomas Preston, England, M.B. and C.M., 1877—On Etiology.  
 M'Dowall, John Greig, Scotland, M.B. and C.M., 1873—The Use of Sedatives in the Treatment of the Insane.(a)  
 Retief, Petrus Jacobus, Cape of Good Hope, M.B. and C.M., 1880—The Action of Copaiva Balsam (received the degree on April 20, 1883).(a)  
 Robertson, Alexander Milne, Scotland, M.B. and C.M., 1872—Anthropological Account of the Aborigines of Western Australia, together with the Climate, etc., of the Country.(a)  
 Robertson, James George, Africa, M.B. and C.M., 1876—Jaborandi and Pilocarpin.(a)  
 Rose, Alexander Simpson, Scotland, M.B. and C.M., 1880—Notes on some of the more Prevalent Diseases of the Egyptian Expedition of 1882-83.(a)  
 Smith, Thomas Henry, England, M.B. and C.M., 1877—Angina Pectoris.  
 Watkins, Arnold Hirst, England, M.B. and C.M. (with Second Class Honours), 1875—Tracheotomy for Croup and Diphtheria.(a)  
 Waugh, John (M.A. Edin.), Scotland, M.B. and C.M., 1881—On the Pathogenesis of Croupous Pneumonia.(a)  
 Weight, Rowland Hill, England, M.B. and C.M., 1880—Hydrotherapeutics in Febrile Conditions.  
 Wortabet, Henry George Luther, Syria, M.B. and C.M., 1878—Calculi of the Urinary System.

## THE DEGREE OF DOCTOR OF MEDICINE UNDER THE OLD STATUTES.

(With the Title of the Thesis.)

Reid, George More, Scotland—On the Radical Cure of Hernia, with special reference to some of the Methods that have been adopted for that purpose.

## THE DEGREE OF BACHELOR OF MEDICINE AND MASTER IN SURGERY.

Augustus Whitehorn Addinsell, England; Alfred Aikman, Scotland; Chas. Aitken, India; George Forbes Alexander, (c) Scotland; Edwin Bailly, England; Percy John Bailly, (e) England; John William Ballantyne, Scotland; Thomas Lane Bancroft, England; Theodore Hugh Barker, (e) Australia; William Henry Barrett, Gibraltar; Hunter Jackson Barron, England; David George Bennet (B.A. New Brunswick), Canada; Patrick Hunter Bett, Scotland; William Bird, England; John Bowes, Scotland (received the degrees on November 25, 1882); George Thomas Broatch, Scotland; Charles Brown, Scotland; John Henry Brown, England; Andrew Crichton Buist, Scotland; Thomas Marshall Buncle, Scotland; George Schuyler Cardew, India; James Matthew Caw, Scotland; Edwin Albert Chill, India; Michael Clark, England; Ronald Clark, Scotland; Arthur Henry Weiss Clemow, England; Charles Newberry Cobbett, England; Philip Cockburn, Scotland (received the degrees on November 25, 1882); Horace Cocks, England; Sidney Alfred Comber, England; Francis Gillies Connor, Australia; William Cotton (M.A.), Scotland; James Craig, Scotland; William Cumming, (e) Scotland; James Dalgleish, Scotland; Thomas Kennedy Dalziel, Scotland; Daniel Rees Davies, England; John Davies, Wales; William Hugo Davies, England; Thomas Harrison Davison, England; Archibald Telford Dochart, (e) Scotland; Archibald Donald, (e) (M.A. Edin.), Scotland; Herbert Johnson Dring, England; Alexander Peters Drummond, Scotland; William Duff, (e) Scotland; George Duncan, Scotland; Thomas Edward Dyson, England; David Griffith Evans, Anglesey; Thomas Johnson Fletcher, England; Boston Elphinstone Fordyce, Scotland; William Henry Francis, Chili;

- (a) Commended for dissertation.
- (b) Obtained prize for dissertation.
- (c) Passed the examinations with First Class Honours.
- (d) Deemed worthy of competing for dissertation prizes.
- (e) Passed the examinations with Second Class Honours.

Alexander George Fraser (M.A. Aberdeen), Scotland; William Duncan Fraser, Wales; Arthur Fuller, (e) England; Matthew Henry Gardiner (M.A. Glasg.), Scotland; Walter Chancellor Garman, England; Robert Ritchie Giddings, England; Frank William Albion Godfrey, (e) Australia; Robert Gordon, England; William Bruce Gowans, Scotland; Vernon John Greenhough (B.A. Cantab.), England; Francis Walter Grierson, (e) Scotland; Matthew Wilkins Gutteridge, England; Francis James Hall, England; Frederick William George Hall, India; Patrick Brodie Handyside, Scotland; Robert Hardie, Scotland (received the degrees on November 25, 1882); James Heath, Ireland; Edward Bateman Hector, Scotland; Robert Dundas Helm, Scotland; John Henderson (M.A. Q.U. Irel.), Ireland; George Hewlett, (c) Ireland; John Stonely Hill, England; Thomas Knight Hill, England; John Hoyle, England; James Hunter, Scotland; William Hunter, (c) Scotland; John Hutson (B.A. Durh.), Barbadoes; Robert Inch, Scotland; George Irving (M.A. Edin.), Scotland; John Lowthian Jackson, England; Adam Jameson, Scotland; Samuel Johnson, India; Charles Hampson Jones, America; Francis William Brandram Jones, England; John Gregory Jordan, Calcutta; John Edward Harry Kelso, India; John Spence Law, Scotland; Thomas Spencer Lawry, New Zealand; William Murray Leslie, Scotland; Joseph Alexandre Lestrade, St. Lucia; Henry James Ley, England; Charles Louis Lightfoot, England; Henry Sanderson Lloyd, Australia; Robert Thomas Bell Lorraine, Scotland; John Alfred Loudon, England; Thomas Malcolm Murray Lyon, Scotland; Herbert Macandrew, New Zealand; John Cowan M'Clew, Scotland; John Macdonald, Scotland; William Fraser Macdonald, Scotland; Allan Macfadyen, Scotland; Alex. Duncan Macgregor, Scotland (received the degrees on January 27, 1883); John Archibald M'Intyre, Shetland; Francis Alphonsus Maciver, England; George Mackay, (e) Madras; William Alexander Mackay, Scotland (received the degrees on April 20, 1883); Archibald Mackenzie, (c) Natal; Robert Mackenzie, Scotland; Frank Irvine Mackinnon, Scotland; John McLachlan, Scotland; Charles George MacLagan, Berwick-on-Tweed; James Alexander M'Laren, Scotland; John Shaw M'Laren (M.A. Edin.), Scotland; James Macpherson, New Zealand; William Aberdeen Malcolm, Scotland; Augustus Alexander Matheson, Scotland; Farquhar William Matheson, Scotland; Duncan Menzies (M.A. St. And.), Scotland; Alex. Cameron Miller, Scotland; Ralph Smith Miller, Scotland; William Henry Miller, Canary Islands; David Milligan, Scotland; James Milne, Australia; Robert Peter Mitchell, Scotland; Pieter de Villiers Moll, South Africa; Arthur Rowley Moody, England; Robert James Anderson Moore, Isle of Man; Benjamin Michael Moorehouse, New Zealand; Upendra Nath Mukerji, Calcutta; Andrew Watson Munro, Scotland; Alexander Brown Murdoch, Scotland; James Adam Johnston Murray, England; Andrew Scott Myrtle, England; John Headley Neale, England; Andrew Murray Neethling, Cape of Good Hope; Gustavus Paul Nicolet, Belgium; Gerrit Nieuwoudt, (c) (B.A. Cape of Good Hope), Cape of Good Hope; John Tawse Nisbet, Scotland; John Orr, India; George Dall Orrock, Scotland; Owen Richard Pughe Owen, (e) Wales; George Park, (e) (M.A. St. And.), America; Andrew Melville Paterson, (c) England; Walter Petter, England; William Ernest Porter, England; Alexander William Gordon Price, India; William Locking Price, India; Joseph Priestley (B.A. Lond.), England; James Black Roberts, England; James Stirling Robertson, (e) (M.A. Edin.), Scotland; Thomas Murray Robertson, (e) India; Arthur Robinson, (e) England; Chisholm Ross, Australia; Frank Rothera, England; Henry Davis Rowan, India; Mark Anthony Savage, Ireland; Harry Scott, England; Stanley Scott, England; William Duncan Scott (B.A. Oxon.), Scotland; Lloyd Grant Smith, England; Arthur Edward Cecil Spence, India; William Spence, Scotland (received the degrees on Nov. 25, 1882); Alexander Stables, Scotland; Arthur Cowell Stark, England; John Steell, India; Charles Stein, Scotland; James Robert Stevenson, Scotland (received the degrees on November 25, 1882); Arthur Jallard Stiles, England; William Malcolm Sturrock, Scotland; Allan Cuthbertson Sym, Scotland; George Peter Taylor, England; Andrew Thomson, Scotland; Daniel Gibson Pearce Thomson, Scotland; George Thomson, Scotland; Richard Vassie, Scotland; John Walther, England; Allan Ogier Ward, England; Edward Henry Warner, England; Alexander Oswald Cowan Watson, India; Walter Frederick Rodolph de Watteville, Switzerland; James Bates Wilkinson, England; Henry Arnot Wilson, Scotland; James Thomas Wilson, (e) Scotland; Theodore Stacey Wilson, (e) (B.Sc. Edin.), England; Edwin Aubrey Witchell, England; Alexander John Wood, India; George Benington Wood, England; Thomas Wood, Scotland (received the degrees on April 20, 1883); Peter Yates, England; Arthur Charles Younan, (e) Calcutta.

The Ettles Scholarship for 1883 has been awarded to William Hunter, M.B., C.M.; the Beane Prize to William Hunter, M.B., C.M.; the Buchanan Scholarship to John William Ballantyne, M.B., C.M.; the James Scott Scholarship to George Forbes Alexander, M.B., C.M.; and the Dobbie-Smith Gold Medal to John R. Henderson, Student of Medicine.

The following candidates passed the Second Professional Examination in July:—

A. M. Adams, N. E. Aldridge, J. B. Bawden, David Berry, Alexander Bissett, Reginald Bowman, Herbert Bramwell, D. M. Brown, T. A. Brown, R. F. Burt, E. K. Campbell, J. G. Cassells, L. M. F. Christian, T. G. Churcher, A. H. Croucher, Daniel Davies-Jones, Thomas Easton, Edwin Eckersley, Francisco Fernandes, Thomas Fraser, T. A. W. Fulton (with distinction), C. H. Gage-Brown, W. D. Grieve, W. T. Gubbin, T. M. Hodgson, W. A. Holmes, T. A. F. Hood, Robert Howden (with distinction), E. M. Inglis, Hugh John, David Laing, A. E. Langschmidt, C. N. Lee, C. L. Lempriere, C. J. Lewis (with distinction), W. G. Little, J. S. M'Cracken, A. G. Macdonald, John Macdonald, W. C. M'Ewan, John M'Gibbon, Alistair Macgregor, William Mackay, William B. Mackay, F. L. Mackenzie, J. C. Mackenzie, A. R. Macmillan, Archibald Macqueen, L. G. Malham, W. H. Van der Merwe, David Morgan, J. H. Neethling, C. E. Paterson, E. F. T. Price, A. C. Purchas, C. W. Purves, T. R. Rait, F. M. Reynolds, John Richards, William Richards, J. B. Ridley, J. C. Robertson, R. M. Robertson, T. H. Robinson, W. L. Ross, A. J. T. Roux, Joseph Rutter (with distinction), Y. S. Sanitwongse, Herbert Sheldermine, R. D. Shiels, A. H. Smith, George Smith (with distinction), S. H. A. Stephenson, C. H. Stewart, B.Sc., H. J. Styles (with distinction), J. W. Stirling, J. F. Sturrock, John Sykes, John Tomlinson, J. R. Wallace, J. E. West, F. G. Westenra, R. H. A. Whitelocke, S. T. Williamson, G. E. C. Wood, J. W. Wyncoll, J. C. Young.



**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 16 :—

Harris, John William, Woodhay, Ivybridge, S. Devon.  
Mountain, John Joseph, Hull.  
Newton, Rupert William, The Square, Kenilworth.  
Oram, Percy Sprague, Amhurst-road, N.  
Penny, Edmund John, The Vicarage, Abbotsbury, Dorset.  
Whitfield, John Neil, Moss-street, Haywood.

#### APPOINTMENTS.

\* \* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

**EWART, JOSEPH, M.D.**—Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

**MACKAY, EDWARD, M.D.**—Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

#### DEATHS.

**MCDONALD, JOHN ALEXANDER, M.D.**, late of Woburn, Bedfordshire, at Horsham, Sussex, on August 17.

**SMITH, JOHN ALEXANDER, M.D.**, Treasurer Royal College of Physicians, Edinburgh, etc., at Edinburgh, on August 17.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.**—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and must produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be sent to the Secretary, on or before September 8.

**CHESTER GENERAL INFIRMARY.**—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Candidates must possess double qualifications and be duly registered. Testimonials to be addressed to the Chairman of the Board, on or before August 27.

**CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, PARK-PLACE, MANCHESTER.**—House-Surgeon. Salary £80 per annum, with apartments and board. Candidates must be duly qualified practitioners. Applications, with testimonials, stating age, to be sent to Mr. Edwin W. Marshall, Secretary, 38, Barton-arcade, Manchester, not later than August 28.

**GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.**—House-Surgeon. Salary at the rate of £100 per annum, with board, lodging, and washing. Candidates must possess a medical and surgical qualification and be registered. Applications, with testimonials, to be forwarded to the Secretary on or before September 1.

**JERSEY PUBLIC LUNATIC ASYLUM.**—Superintendent Medical Officer. (For particulars see Advertisement.)

**LIVERPOOL ROYAL SOUTHERN HOSPITAL.**—Senior House-Surgeon. (For particulars see Advertisement.)

**ROYAL SOUTH LONDON DISPENSARY, ST. GEORGE'S CROSS, LAMBETH, S.E.**—Honorary District-Surgeon. Apply to Mr. Hentsch, at the Dispensary, on or before September 1.

**WALLASEY DISPENSARY.**—House-Surgeon. (For particulars see Advertisement.)

**WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE-ROAD, W.**—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, and have attended ophthalmic practice for twelve months. Address, Secretary, at the Hospital, on or before September 1.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

**Abingdon Union.**—Dr. George Gossett has resigned the First District : area 7242; population 5406; salary £107 per annum.

**Bingham Union.**—Mr. W. P. Blumer has resigned the West District : area 15,748; population 2947; salary £30 per annum.

**Cockermouth Union.**—Mr. Joseph Pearson has resigned the Maryport District : area 21,778; population 17,976; salary £75 per annum.

**Dursley Union.**—Mr. Francis James Joynes has resigned the Third District : area 6410; population 2157; salary £80 per annum.

**Greenwich Union.**—Mr. A. J. Bathe has resigned the office of Assistant Medical Officer at the Infirmary. Salary £100 per annum and board and lodging.

**Norwich Union.**—The office of Medical Officer for the First District is vacant : population 7829; salary £80 per annum.

#### APPOINTMENTS.

**Alcester Union.**—Robert William Jephcott, L.R.C.P., L.R.C.S., and L.M. Edin., to the Alcester District and the Workhouse.

**Liverpool Parish.**—John Henderson Brannigan, L.R.C.P. and L.R.C.S. Edin., Assistant Medical Officer at the Workhouse.

**Manchester Township.**—William Henry Winder, M.R.C.S. Eng. and L.R.C.P. Lond., to be Resident Assistant Medical Officer at the Crumpsall Workhouse.

**Manchester Union.**—James Richmond, M.R.C.S. Eng. and M.B., to the office of Assistant Medical Officer at Crumpsall Workhouse.

**New Winchester Union.**—David Brown, M.R.C.S. Eng., L.K. & Q.C.P. Ire., to the Second District.

**Okehampton Union.**—John Arthur Kempe, M.R.C.S. Eng., L.R.C.P. Lond., to the North Pawson District.

## NOTES, QUERIES, AND REPLIES.

*Be that questioneth much shall learn much.*—Bacon.

**M. P. W.**—Consult any physician on the staff of any of the metropolitan general hospitals.

**A Colonial Surgeon.**—One of the gentlemen who signed your recommendation for the Fellowship not having himself signed the by-laws since he was elected a Fellow, the Council was unable to proceed to the election. If this error is rectified the election will take place in October. Your old friend Mr. Stone informs us that he will get this matter remedied for you by a mutual friend.

**A Sergeant's Letter from Cairo.**—"A good many soldiers have broken their pledges as teetotalers through the offer of the ration of rum, the intense heat, and the bad water. The latter is frequently almost as thick and as black as ink, and it may be that a short distance from you, in the canal or pool, is the dead body of a horse or camel. Under these circumstances all you have to do is to dip your can in the liquid, apply it to your lips, and think you are drinking clear water! Nice, isn't it?"

**Vaccination in St. Pancras Workhouse: The Rosina Walsh Case.**—The Secretary of the Local Government Board has addressed the following letter to Dr. Dunlop :—"Adverting to your statement, that you do not remember having asked Rosina Walsh before you performed the operation whether she had ever been revaccinated, I am to state that the Board consider that if you did not in fact make this inquiry, it was your duty to have done so. With regard to the allegation that the operation was performed without the woman's consent, the Board directs me to say generally, that they are of opinion that the mere fact of there being no expressed objection on the part of the patient should not be regarded as equivalent to his or her concurrence. On the question of the revaccination of women after confinement, I am to state that while providing for the inmates of the workhouse in its several departments such revaccination as is proper in order to guard each department from danger of small-pox, the Board are advised that it is undesirable to allow the accidents of the lying-in room to be confounded in the mind of patients with the results of vaccination, and you will do well to hold this consideration in view as affecting the question of revaccinating women within a short period of labour."

**The Medical College Hospital, Calcutta.**—The *Indian Daily News* states that a native lady has already been enrolled as a pupil in the primary class.

**Dr. Johnson.**—The late Dr. Robert Boyd, who perished in the destruction by fire of his asylum, must have been seventy-five years of age, seeing he was admitted a Member of the London College of Surgeons in 1830, when the regulations of the College required he should then be twenty-two years of age. Dr. Boyd was an Irish gentleman; he and the late Professor George Gulliver married sisters.

**A New Cottage Hospital, Trowbridge.**—A cottage hospital, the gift of Mr. Jesse Gouldsmith, son of the late Mr. Gouldsmith, of Clifton, to the town, is in course of erection, and it is understood that the generous donor will also endow it. The building will include a soup-kitchen, and the total cost is estimated at £3000.

**Vaccination, Eastbourne.**—On the 13th inst. no less than sixty-eight persons were summoned before the magistrates for not complying with the law. Several of them had three children unvaccinated, and others had been previously convicted for a similar offence. Fines were imposed in some cases, and orders for vaccination made in others. As to the latter the delinquents, without exception, declared they would not obey the order.

**Tobacco-Smoking Nations.**—A statistical comparison recently published, showing the relative extent to which various nations are addicted to the use of tobacco, gives the proportions as follows :—For England, France, and Russia, 5; for Italy, 7; for Cuba, 11; for Austria, 14; for Germany and North America, 15; for Belgium, 24; and for Holland, 28. Mexico, however, even surpasses Holland, for there everyone is a smoker. The school children who have done best in their studies are rewarded by being allowed to smoke a cigar as they stand or sit at their lessons. The schoolmaster himself is seldom without a cigar in his mouth. In the law courts all persons commonly enjoy their tobacco freely, and even the accused in a criminal trial is not denied this indulgence.

**The Noel Park Estate, Hornsey.**—This is the third building enterprise of the Artisans', Labourers', and General Dwellings Company. No public-houses will be permitted in any part of it, although it will comprise 2600 houses, covering nearly one hundred acres. The rents of the houses (including all rates and taxes) range from 11s. 6d. for the first-class houses, containing eight rooms, to 6s. per week for the fifth-class houses, which contain four rooms and a washhouse.

**Quarantine in Excess.**—A German merchant, a few days ago, received a telegram from Damiatta. Noticing that it had been detained twenty-four hours, he made inquiries, when he was told that the telegram came from a cholera-stricken district, and they were compelled to disinfect it according to the regulations of the authorities!



*An Old Subscriber.*—The first number of the *Medical Times* was published September 28, 1839. The "Medical Portraits" appeared in that and succeeding volumes. You will find a complete set in the library of the College of Surgeons, but remember it will be closed during the month of September.

*Precautions in Belgian Theatres.*—The Communal Council of Brussels have issued some new regulations, which are specially directed against "sensational scenes of the kind which introduce fire and explosives." No such scenes are henceforth to be allowed without the permission of the authorities, and then only under prescribed conditions. The manufacture or storing of explosive substances in theatres is prohibited. Such substances, when permitted, are to be kept in a building apart, in the charge of the firemen of the establishment, and can only be introduced by them immediately before they are required for scenic effects.

*Water Cisterns: An Economical Improvement.*—The *Building and Engineering Times* states:—"We suppose that in some future day, when sanitary appliances and precautions shall be in universal use, the modern practice of having one cistern from which are drawn the supply of drinking-water and the supply for flushing a closet will be looked upon as a relic of barbaric uncleanness. But there are thousands of houses inhabited by respectable people where the single cistern is thus employed. It is really worth while knowing that at a comparatively small expense this may be avoided. A partition may be placed in the cistern reaching to half an inch higher than the top of the waste-pipe, and separating the closet valve from the domestic supply pipe. As those are usually at different ends of the cistern this is easy. When the water is 'turned on' the domestic half is first filled, and the water overflows to fill the other half. Two cisterns are thus practically provided in the room of one, and the drinking-water is thus effectually separated from that required for the closet. We have actually tried this plan, and can speak favourably of it. The water company's inspector, it is true, was puzzled by it, and thought it rather irregular, but he was unable to charge anything extra for it, so that we obtained all the advantage of a second cistern, without paying 4s. a year to a rapacious company. The cost of the contrivance is under half-a-sovereign, and no doubt it was repaid over and over again by the greater purity of our drinking-water."

*Money in Lieu of Beer; Fish Dinners.*—The Local Government Board has assented to the proposal of the Islington Board of Guardians to pay the several officers of the schools at the rate of £3 per annum each in lieu of the usual allowance of beer. The number altogether will be twenty. The Guardians have decided to try, as an experiment, fish dinners for the inmates of the workhouse once a week for a fortnight.

*A Sad Catastrophe.*—Mr. Robert W. Corry, son of Mr. R. W. Corry, of Belfast, and nephew of Mr. J. P. Corry, M.P., recently went out, accompanied by a friend, on a botanising excursion in Lough Gill; both have been drowned. Mr. R. W. Corry held a high position as botanist at Cambridge, where he resided. He was one of the Lecturers on Botany in the Medical and Biological Schools. Early in the present year he was appointed Lecturer on Botany at Girton College, and was elected a Fellow of the Cambridge Philosophical Society. Lately he was awarded a supplementary science grant by the Royal Irish Academy, in addition to that granted last year, to aid in the completion of a botanical survey of the Ben Bulbin Range, County Sligo.

*The Small-pox Epidemic, Wednesbury.*—The Sanitary Authority has succeeded in stamping out small-pox in the district, where it has prevailed for two years. The disease was brought into the town, and seven hundred cases have occurred, resulting in fifty deaths. A thorough system of isolation was carried out, and the authorities erected marquees in a field, to which affected persons were immediately removed.

*The Liquor Trade and its Profits.*—A publican, a witness in a case recently heard at Preston, said the profit on spirits was about 100 per cent.; and another, who had been in the trade all his life, stated that for an expenditure of £100 there ought to be a return of £200, for after rent, rates, and taxes were paid there should be a net profit left of 40 or 50 per cent.!

*The Dewsbury and District Infirmary.*—This institution has just been opened. The Infirmary has cost about £17,000, including the site, and provides accommodation for fifty in-patients.

*The High Death-Rate, St. Petersburg.*—The annual death-rate of this city is over 51 per thousand of the population. This excessive mortality may be largely accounted for by the quality of the water supplied to the inhabitants. Steps are about to be taken to remedy this, no doubt, serious evil. The Prefect of St. Petersburg has lately called the attention of the Mayor to the results of an extensive series of experiments, confirming the general complaints of the disagreeable flavour and nauseating odour of the water in common use. The subject has been referred to a municipal committee, who have reported that it is urgently necessary that filters should be established in connexion with the supply in every house in the city, at an estimated cost of 200,000 roubles. The water company, sheltering itself under the terms of its contract, has refused to bear this expense, and it is admitted that it would be difficult to compel the landlords of houses to undertake the task. In these circumstances it is suggested that this reform shall be carried out immediately at the cost of the municipality.

*The Dustbin: A Good Example.*—The Poplar District Board of Works has resolved—"That, in order to prevent the accumulation of dust and house-refuse, the Board provide receptacles, and deliver the same at such houses as may hereafter be considered advisable in their district, for the occupiers to place all dust and refuse therein, such receptacles to be placed on the pavement outside the houses, at such times as may be hereafter fixed, so that such receptacles may be emptied." The Board expressed the doubt whether, among the rougher portion of the population, the system will be found to be practicable. But the experiment is to have a full and fair trial.

*Dr. MacS., Whitechapel.*—Only one member of the Council of the College of Surgeons has died whilst filling the President's chair, viz., Mr. Richard Clement Headington, Surgeon to the London Hospital, who was succeeded by Mr. Robert Keate, Surgeon to St. George's Hospital, in 1830. He held office during that and the succeeding year. The new Calendar of the College will not be published for some weeks; it will, like its predecessors, give you all the desired information.

*A Medical Attendant's Bill.*—"I understood you to say that your charges would be light," complained a patient when his doctor handed him a tremendous bill. "I believe I said my fees would be nominal," was the reply; "but ——" "Oh, I see," interrupted the patient; "phenomenal!"

#### COMMUNICATIONS have been received from—

Mr. KENNETH W. MILLICAN, Kineton; THE SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. JONATHAN HUTCHINSON, F.R.S., London; Mr. DAVID WILLIS, London; Mr. J. CHATTO, London; Dr. GEORGE BUCHANAN, F.R.S., London; Dr. C. MERCIER, Dartford; Dr. HENRY MAUDSLEY, London; Dr. J. WICKHAM LEAG, London; Mr. T. M. STONE, London; THE HONORARY SECRETARY OF THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, Liverpool; THE SECRETARY OF THE UNIVERSITY OF LONDON, London; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT, London; Dr. BRUCE, London; THE DEAN OF THE WESTERN MEDICAL SCHOOL, Glasgow; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh.

#### BOOKS, ETC., RECEIVED—

Dei Germi ad Organismi Inferiori, del Dotti Antonio Ceci—Transactions of the Vaccination Inquiry, by Montague D. Makuna, part i.—The Pharmacopœia of the North-Eastern Hospital for Children—The Law of Sex, by George B. Starkweather, F.R.G.S.—Speeches of Mr. P. A. Taylor and Mr. C. H. Hopwood on Vaccination—Metropolitan Asylums Board: Report of the South-Eastern District Hospital for 1882—Lund on the Antiseptic Question.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Ciencias Médicas—Canadian Practitioner—Maryland Medical Journal, July 28 and August 4—Journal of the Vigilance Association—Journal of the British Dental Association—Detroit Lancet—Hawick Express, August 18—American Journal of Obstetrics—Medicisch-Chirurgisches Correspondenz-Blatt—Australasian Medical Gazette—Centralblatt für Nervenheilkunde, etc.

### APPOINTMENTS FOR THE WEEK.

#### August 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### 27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

#### 28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

#### 29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

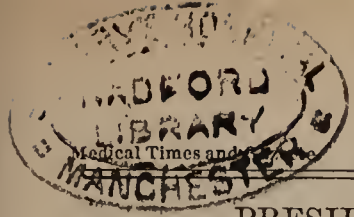
#### 30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

#### 31. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.





## PRESIDENTIAL ADDRESS

DELIVERED AT

## THE HUNTERIAN SOCIETY

On February 28, 1883.

By WALTER RIVINGTON, M.S. Lond., F.R.C.S. Eng.,  
Surgeon to the London Hospital.

GENTLEMEN,—The first and not the least agreeable of the duties which devolve upon me as the result of my election to the highly honourable office of President of the Hunterian Society is to thank the members for the distinction thus conferred upon me. My sense of this honour has been deepened by glancing over the names inscribed in the list of Presidents of the Hunterian Society. Here we find the names of Blizard, Robinson, the two Babingtons, Travers, Billing, Callaway, Aston Key, Bransby Cooper, Whiting, John Scott, William Cooke, Luke, Bright, Macmurdo, Ramsbotham, Cock, Marshall Hughes, John Adams, Henry Greenwood, Hilton, Lever, Curling, Barlow, Solly, Little, Walne, Risdon Bennett, Critchett, Daldy, Smee, Stephen Ward, John Jackson, Peacock, Jonathan Hutchinson, Herbert Davies, Bryant, Robert Barnes, Sedgwick Saunders, Fotherby, Arthur Durham, Crosby, Braxton Hicks, John Couper, Burchell, and Hughlings-Jackson. Many of these names are "familiar in our mouths as household words," and are indelibly inscribed upon the scroll of fame. Here are men who have made important improvements in science, who have carried out original investigations, who have discovered new diseases, or first supplied the correct interpretation of conditions previously known but wrongly understood; men who have devised effective treatment for diseases and deformities; men who have held the foremost position in special branches of our art; men eminent as exponents of clinical medicine and surgery, or as successful teachers of sciences embraced in the medical curriculum;—leaders of the profession both in theory and practice. And last, though by no means, in my humble judgment, the least in merit, are the names of general practitioners, Orators of the Society, who have been held in estimation by their professional brethren, and who, by their high and honourable conduct as trusted family counsellors, have maintained before the main body of the public the true dignity of medicine. A list of names like that which I have placed before you constitutes of itself an eloquent vindication of the policy which led to the foundation of the Hunterian Society, and is the best of all possible proofs of the value of the Society, and of the opinion entertained of it within the sphere of its operation by the profession itself. Fortunately, however, notwithstanding their eminence, the prosperity of the Hunterian Society does not depend upon the President, however advantageous it may be that the edifice should be appropriately crowned. It is upon the active support and interest displayed by the main body of the members, upon the social tie arising from our acquaintance with each other, and our unrestrained intercourse at our meetings imparting a feeling of friendship and brotherhood not met with to a like extent at any West-end society, that we have to rely. Our dinners are an excellent institution, and do something to keep up the popularity of the Society. Our library is convenient for reference, and our librarians have been indefatigable. Both our Librarians and our Treasurers show their interest in the maintenance of the Society by holding their offices for long periods—a steadfastness by which the Society greatly benefits. But, first and foremost amongst us, the real generals and leaders of our army, are our Secretaries, on whom we depend largely for keeping up the supplies of papers and contributions. The list of our Secretaries is a very goodly list, and names may be seen in the list which are not to be found in the list of Presidents—but names of distinguished men, which it is a pleasure to recall. There, for instance, is the name of Dr. Habershon; and all will remember the loss which the Society and the profession deplored in the early death of a former Secretary—a rising man of great promise, integrity, and capacity—Dr. John J. Phillips, of Guy's. Again, if you compare the list of Presidents with the list of Orators, you find

that there are names in each list not inscribed in the other. Out of 48 Presidents 37 have delivered the Oration; out of 55 Orators 37 have occupied the Presidential chair, leaving, after deducting the names of those who may be among my successors, a balance composed of men of high standing in the profession, now and formerly, who ought to be had in more constant remembrance. I will mention Dr. Conquest, Mr. Coulson, Mr. Bell, Dr. Ashwell, Dr. Thomson, Dr. Owen Rees, Dr. Ridge, Mr. Thomas Callaway, junior, Dr. Oldham, Dr. Munk, and Sir William Gull. Hence, I think, it would be an improvement if we printed in our annual *Transactions* not merely the list of Presidents, but the list of Secretaries, Orators, Treasurers, and Librarians. The space occupied would not be great, and an agreeable completeness would be imparted to our record.

Our Society was founded in February, 1819, and is the third in the metropolis in point of age, having been preceded by the Medical Society, established in 1773, and the Medico-Chirurgical in 1805. Never was it more flourishing than it is now. At the end of the first year of its existence it embraced 53 members; four years later there were 79 ordinary members and 33 corresponding members; in 1870 the number of members had risen to 120; and in 1881-82 it stood at 130, together with 2 honorary members and 26 corresponding members. Speaking of the order of corresponding members in 1869, Dr. Fotherby said—"It may be remarked here that the institution of the latter class has been a failure in the Society's operations. It was expected that this free membership would secure in return an occasional communication from the recipient; but the title appears to be understood as *lucusa non lucendo*—corresponding members do not correspond." This description remains as true at the present time as when it was uttered fourteen years ago.

Our income is adequate to our wants, and there is generally a small balance at the end of the year.

Our Society is one of the most complete medical societies in the metropolis; for it has its library, its dinner, and its Oration, as well as its business meetings. It is also distinguished for its universality. No kind of medical communication is excluded. It is at once a pathological society, a clinical society, a medico-chirurgical society, an obstetrical society, and an ophthalmological society. Moreover, papers have occasionally been read upon topics of general professional interest. Many of the communications offered—and certainly not the least interesting and instructive—are histories of cases, illustrated often by the presence of the patients themselves. Possibly the rule which prevents the publication of our proceedings in the weekly journals may operate unfavourably in some respects as regards the increase of the Society and the number of papers and other communications, but it has counterbalancing advantages, and *stare super vias antiquas* is a safe motto to follow in this particular. That it does not seriously interfere with the supply of good material is shown by the fact that many of the papers read are published by the authors in the medical periodicals. At the moment I recall papers by Mr. Hutchinson, Dr. Stephen Mackenzie, Dr. Herman, Dr. Bedford Fenwick, Dr. Hughlings-Jackson, Dr. Fletcher Beach, Mr. Jennings, and myself. If I may be pardoned for a moment referring to my own papers I would mention that I have read six formal papers before this Society and all have appeared in some form or other in a medical periodical, five of them almost as they were read to the Society. All contained material which I valued, which was the best at my disposal at the time, and would have been brought before some West-end society if I had not been perfectly contented with the more retiring medium of the Hunterian Society. Our papers, which are of varied interest, are supplemented by our Orations, which have dealt with a very wide range of topics—scientific, ethical, historical, political, statistical, educational, philosophical, and didactic. Bound together, they would form a valuable and instructive volume. Two of these Orations stand out prominently as records of the past work of the Society, peculiarly interesting to any new members who may be desirous of making themselves acquainted with the *Transactions* of the Society in former years, forming a just estimate of the value of the Society to the busy practitioner, and judging how far it has fulfilled the chief design of the founders of the Association in "promoting the extension of scientific and practical knowledge by free and candid communication and discussion among its members." The first Oration to which I refer is that given by Dr. Fotherby on



the occasion of the jubilee of the Society. It contained a history of the origin of scientific associations, and a full description of the origin and progress of the Hunterian Society up to the year 1869, in which it was delivered. The second was the Oration of Mr. Bryant in 1870, which largely supplemented the information afforded by Dr. Fotherby concerning the papers which had been read in years gone by. Mr. Bryant's review constitutes a very interesting exposition of the advances made in medical science and practice during a period of fifty years. In using the term "science" in connexion with medicine, I am well aware that the question has often been sceptically asked, Is medicine a science or an art? and that some have arrived at the conclusion that it is only an art—a craft destitute of exact principles, and founded upon mere empiricism. How unjust this is to medicine (and medicine embraces surgery) a little reflection will show. What is art and what is science? Art is the application of knowledge, or power to effect a definite purpose, and, as this purpose may either have for its immediate object utility to man, or make direct utility secondary to pleasure or gratification of the senses and taste, art comprehends the useful arts and the fine arts. The use and advantage of man is the great aim of medicine; and just in proportion as it is subservient to this end, and is practised with this purpose in the foreground, whilst the advantage of the practitioner, though not by any means to be neglected, is duly subordinated to the general weal, does medicine take rank as a profession; and just in proportion as the general weal both of the public and the profession itself is subordinated to the immediate advantage of the practitioner does medicine sink into a trade or a low kind of traffic. A science is a body of truths whose principles can be known or separated—a collection of facts which can be reduced into order by classification and methodical arrangement, or a branch of knowledge made the subject of investigation with a view to the discovery of principles. The essence of science consists in its embodiment of general facts, principles, or laws deduced from a number of isolated facts or observations collected by individuals. Clearly, then, medicine is not merely an art, but a science also, however imperfect as yet, and however large the gaps which have still to be filled. These imperfections and these gaps are explained by the circumstance that, as a science, medicine is distinguished by its extreme complexity. Medicine dealing with causes and effects is a branch of natural science. It comprises both the natural history of the ailments to which flesh is heir—to which I must confine my observations this evening—and the knowledge of the means or therapeutics by which these ailments may be prevented, cured, or relieved. Now observe how complex is even the first half of the science of medicine: the natural history of diseases, their causes, symptoms, and course, their effects and complications, and the morbid changes which are found after death. Observe how essentially dependent is medicine for its development on various allied and subordinate branches of knowledge, or the natural sciences on which its foundations are laid. A complete knowledge of the structure and relations of the parts and organs of the human body in health (or anatomy), and a complete knowledge of the mechanism, motions, functions, and changes of the human body in health (or physiology), and to some extent the anatomy and physiology of the lower animals, and of plants, or vegetable organisms, are absolutely necessary as preliminaries to the advance of medicine as a science. Moreover, both anatomy and physiology are largely dependent upon physics and chemistry, which must be perfected before they can be applied to assist the progress of anatomy and physiology. Under physics must be included the invention of scientific instruments, such as the microscope, ophthalmoscope, and others, without which investigation of healthy appearances and morbid changes could not be prosecuted. In this complexity of medicine as a science lies the germ of a distinction between medicine as a science and medicine as an art. As an art, medicine may flourish empirically from mere observation of the common facts of disease, and the effects of remedies, without the existence of anything that can strictly be called medical science, and with very slender knowledge of the human frame. Possessing a limited acquaintance with human anatomy, and little, if any, physiology or chemistry, Hippocrates could give such graphic accounts of diseases and injuries that they may be recog-

nised from his descriptions at the present day. By a close observation of the countenance, the decubitus, the evacuations and discharges, and other general indications, he was able to predict the probable termination of the case in recovery or death. He could observe the effects of climate, situation, and soil upon the race. He recognised the powers of nature in resisting and overcoming disease, and in the repair of injuries. But when we come to the causes of disease we have to be satisfied with his acknowledgment of natural causes, such as the action of the air, and the great negative virtue of rejecting the supernatural agencies, to which diseases were popularly ascribed in ancient times, and which have played so conspicuous a part in the history of medicine since the introduction of Christianity almost up to the present day. Hippocrates was a great clinical physician and surgeon—a practitioner distinguished for acuteness of observation and common sense. The theory or science of Hippocrates was represented by the doctrines of the four elements, earth, air, fire, and water; the four temperaments; the four conditions, hot, cold, moist, and dry; and the four humours, blood, yellow bile, black bile, and phlegm, which acted and reacted upon each other in a wonderful and recondite manner. Doubtless, Coelius Aurelianus was right in his day and generation in considering it unnecessary to inquire into hidden or recondite causes of diseases, and to be satisfied with recognising their existence and discovering the means of removing them. The recognition of diseases and the means of removing them are essentially the art of medicine and surgery; and though neither advanced far without scientific knowledge, they made some progress. Even in the infancy of medical art, wounds could be bound up and dressed, fractured bones could be set, dislocations could be reduced, old women could cull simples, apothecaries could mix theriacum with its more than sixty ingredients, priests could perform circumcision or cut for stone,—but the art cannot be practised according to science until every step of the practical processes can be explained and understood. Everything would be done by rule of thumb, or in accordance with fanciful and extravagant hypotheses, the figments of an uncontrolled imagination. The whole of the practice of medicine would consist in the application of remedies, of whose properties little was known, to diseases imperfectly understood, and the use of means of which little explanation could be offered beyond the bare fact that they had been found by experience to accomplish the end in view. It is this aspect of medicine which has the greatest attraction for the public, and by which it is often guided or misguided. The public believes in experience rather than in science, believes that there are nostrums (or "arcana," as Paracelsus termed them) for everything, and that whilst a regular practitioner educated in the schools may be able to determine the nature of its complaints, to diagnose them, and to give them long classical names, the means of cure are frequently in the hands of charlatans and uneducated pretenders. The public agrees with Boyle when he wrote, "I had much rather that the physician of a friend of mine should keep his patient by powerful medicines from dying than tell me punctually when he shall die, or show me in the opened carcase why it may be supposed he lived no longer."

(To be continued.)

VLEMINCKX'S SOLUTION IN ACNE ROSACEA.—Dr. Stelwagen, in relation to the obstinate nature of this disease, communicates some cases to the *Philadelphia Med. News*, July 7, in proof of the benefit which may often be derived from the application of Vleminckx's solution. This is made by adding one part of lime and two parts of sublimed sulphur, or flowers of sulphur, to twenty parts of water. This is boiled down to about twelve parts, cooled, and filtered. The result is a dark, orange-yellow liquid, with a strong odour of sulphuretted hydrogen, which is to be diluted as occasion may require. Dr. Stelwagen has usually commenced with one part to four or five parts of water, gradually increasing to one to three or stronger, applied for some minutes at bedtime, and, if possible, twice a day. He has used it only in the milder forms of the disease, in which, although it often fails, he regards it as the most reliable single remedy. In the hypertrophied form of acne he has never tried it, believing that in this it would be of little avail.



## THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow;  
Physician to the Western Infirmary, and to the Special Wards for Diseases  
of the Skin.

## LECTURE XIX.

## B.—ORGANIC AFFECTIONS.

## THOSE DEFINED BY UNIFORM CAUSES.

4. *The Eruptive Fevers.*

It would be quite out of place here to deal in an exhaustive way with this group of diseases, so that the following remarks have reference principally to the eruptions characteristic of each, and their differential diagnosis.

The specific fevers accompanied by special eruptions are eight in number, viz.:—

- |                   |               |
|-------------------|---------------|
| A. Typhus.        | E. Rubeola.   |
| B. Enteric fever. | F. Variola.   |
| C. Morbilli.      | G. Varicella. |
| D. Scarlatina.    | H. Dengue.    |

**A. Typhus.**—In this fever the eruption usually makes its appearance from the fourth to the seventh day: it is rarely seen upon the face, and is chiefly met with on the trunk and arms, the abdomen and chest being the parts usually first involved. It consists of dusky-pink, irregular, slightly raised spots, unaccompanied by heat or itching, and giving a mottled appearance to the skin so as sometimes to resemble Syphilitic Roseola. At first it disappears entirely on pressure, but in a day or two only partially, at which stage it becomes more dusky in tint and is no longer elevated. In the later stages of the fever, too, in the centres of some of the spots, minute extravasations of blood (petechiæ) are commonly observed. The eruption all comes out at once—never in successive crops as in enteric fever,—and generally does not disappear finally until convalescence has set in, unless the disease is prolonged by complications or sequelæ; it is rarely absent, though oftener in children than in adults; and the more copious the eruption, and the more livid and petechial it becomes, the more severe, as a rule, is the attack. The odour emanating from the skin and lungs in the latter part of the fever somewhat resembles that of mice, and is very characteristic—so much so that fever-nurses can often, from detecting this typhus-odour, form a shrewd suspicion as to the diagnosis.

The following points should assist in distinguishing the eruption of typhus from Syphilitic Roseola on the one hand, and those due to the administration of Copaiba and Cubebs on the other:—

*Typhus.*

1. Often history of exposure to the contagion of Typhus, and period of incubation rarely more than twelve days.

2. Typhus sets in suddenly, often with rigor, and eruption appears from fourth to seventh day, there being well-marked fever throughout, which in the second week usually assumes the typhoid type.

3. Eruption often becomes petechial.

4. Eruption subsides in a week or ten days.

5. Eruption accompanied by the other symptoms of Typhus.

*Typhus.*

1. Often history of exposure to contagion after a period of incubation of rarely more than twelve days.

*Roseola Syphilitica.*

1. History of preceding chancre, followed by Roseola in from one to two months.

2. There may be slight fever at the outset, but it soon subsides.

3. Eruption does not become petechial.

4. Eruption often lasts for many weeks.

5. Accompanied by other manifestations of secondary Syphilis, e.g., Alopecia, Angina, gland enlargements, nocturnal Rheumatism, etc.

*Copaiba and Cubebs Rashes.*

1. Occurs in those who have been taking Copaiba or Cubebs; and odour of these medicines often perceptible in the urine.

2. Eruption usually absent from the face, and often from the lower extremities.

3. The eruption unaccompanied by heat or itching.

4. Eruption often becomes petechial.

5. The eruption disappears when convalescence sets in.

6. Fever is well marked throughout, and in the second week usually assumes the typhoid type.

2. Eruption more extensively diffused, as a rule, and often on the face.

3. The eruption intensely itchy.

4. Eruption never petechial, but often urticaria-like blotches are developed.

5. The eruption disappears within a few days of the cessation of the medicine.

6. Some fever may be present in the acute stage, but it is moderate, and never assumes the typhoid type.

**B. Enteric Fever (Typhoid Fever).**—The eruption in this fever makes its appearance from the seventh to the twelfth day: it is generally met with upon the abdomen, chest, and back, is unusual on the extremities, and very rare on the face. It consists of round, moderately elevated, rose-coloured spots from one to two lines in diameter, which—unlike the eruption of Typhus—never become petechial, and disappear on pressure throughout. They always come out in successive crops, so that while each spot remains for four or five days, the whole duration of the eruption is from eight to twenty days. Sometimes only two or three spots come out at a time, but in rare cases there may be hundreds. Generally each crop consists of from two or three to two dozen. They are more numerous, as a rule, in adults than in children, and there is no relation, as in Typhus, between the amount of the eruption and the severity of the fever; indeed, some even go the length of asserting that an abundant eruption coincides with a mild attack of the fever. Sometimes it is absent altogether—much more frequently than in Typhus,—and sometimes two or three days before the characteristic spots are observed a scarlet rash is diffused over the whole body, which somewhat resembles that of Scarlatina.

In those cases in which there is a relapse of the fever—which, according to Murchison, occurs about once in fourteen cases—the eruption reappears with all the other symptoms. The following table may be of use in distinguishing Enteric from Typhus Fever, two diseases which, until they were differentiated by the late Dr. Perry, of Glasgow, in recent years, were supposed to be identical:—

*Enteric.*

1. Generally insidious at its onset, and slowly subsides.

2. Average duration three to four weeks.

3. Eruption appears from seventh to twelfth day. Consists of rounded papulæ, which disappear on pressure throughout; are never petechial; and occur in successive crops, the duration of each spot being from three to five days.

4. No peculiar odour emanates from the patient.

5. Eye clear; pupil dilated as disease advances; and a circumscribed flush on the cheek.

6. Bowels generally loose (constipation may continue throughout); evacuations of the colour of pea soup; abdomen tympanitic; pain and gurgling in right iliac region.

7. Epistaxis and Melæna frequent; peritonitis a common complication.

8. Prostration only great towards end of severe cases.

*Typhus.*

1. More sudden at its onset (generally with rigor) and subsidence.

2. Duration in uncomplicated cases two weeks.

3. Eruption appears from fourth to seventh day; gives a mottled appearance to the skin; after a day or two does not entirely disappear on pressure; petechiæ often seen in the centre of the spots in the second week; never occurs in successive crops, and continues till convalescence in uncomplicated cases.

4. Odour peculiar and characteristic.

5. Eye injected; pupil contracted in severe cases; face flushed; expression heavy, dull, and stupid.

6. Bowels generally costive, and no abdominal symptoms present.

7. Epistaxis and Melæna rare; peritonitis never occurs, but hypostatic congestion of lungs frequent.

8. Prostration is present from the first.



Besides the foregoing there are differences in the temperature which our space will not permit of our entering upon in detail.

*c. Morbilli (Measles).*—The eruption of Measles is preceded by fever and catarrh of the whole respiratory tract for four days, during which time Diarrhœa also is a common symptom. It may first make its appearance where the skin is congested, as at the site of a sinapism, or where it has been pressed upon, but unless it is diverted in some such way from its usual starting-point, it begins on the nape of the neck and on the temples, whence it spreads forwards to the face and then down the body, the lower extremities being last involved as well as, usually, least affected. The whole eruption is generally out within a space of three days. Paralyzed limbs, as a rule, are only partially implicated, and, indeed, not unfrequently escape altogether. The colour of the eruption is usually that of a deep pinkish-red, although, in malignant cases, it may have a livid appearance; it occurs in the shape of slightly elevated spots, which disappear on pressure, and which are often of an irregular shape, but which, in typical cases, are arranged in segments of circles or crescents, owing probably to the mode of distribution of the cutaneous nerve-filaments. In some cases, especially either before or after an epidemic is at its height, the eruption may be partial, involving chiefly the face and neck, and, should any internal complication occur, one of the first evidences of it is usually the sudden fading or disappearance of the eruption: hence the erroneous belief that internal complications are frequently the result of the driving in of the eruption. On the other hand, if Measles attacks a person labouring under some other affection of the skin, such as Eczema, the eczematous eruption disappears, to reappear, generally, when the fever has run its course, perhaps even in a more aggravated form. It occasionally happens that Measles is unaccompanied by eruption, the fever and catarrhal symptoms being alone present, and the specific nature of such cases is proved by the fact of their occurring during an epidemic of Measles in persons who are exposed to infection, who have not had the disease, and who do not take it at any subsequent period.

The fever, catarrhal symptoms, and eruption are at their height upon the eighth day of the disease, and, if there is no complication, they all subside together, the eruption fading first on the parts primarily attacked, though rather more quickly on exposed situations. It is usually followed by slight branny desquamation, especially on the face and upper part of the body, and by slight pigmentary stains, which, however, soon disappear.

The diseases most apt to be mistaken for Measles are Roseola, Scarlatina, Rubeola, and Variola. For the diagnosis of the last three we must refer the reader to the descriptions of these diseases which follow, while the following points serve to distinguish the first:—

In *Roseola* the spots are of a brighter red, and have no tendency to crescentic arrangement, nor do they commence on the nape and temple, spread forward to the face, and thence down the body, as in Measles. The eruption is unaccompanied by fever and catarrh, and the affection is neither epidemic nor contagious.

*d. Scarlatina (Scarlet Fever).*—The eruption of Scarlet Fever makes its appearance on the second, or third day at furthest; it is generally first observed on the neck and upper part of the chest, whence it spreads down over the body, the face usually being spared, and palsied limbs not being attacked, or only to a slight extent. Such is the usual order of invasion, but if the skin has been congested at any part, as the result, for example, of the application of sinapisms or the undue compression of the body by the clothing, the eruption may first make its appearance at that part. It consists of minute red dots situated at the orifices of the follicles, which at first are discrete, but rapidly increase in number, and soon coalesce, forming a uniform or punctated eruption; and when, as exceptionally happens, the congestion of the orifices of the follicles is great, the swelling thus produced may give a rough feeling to the affected surface. Sometimes the eruption occurs in patches, but often it is pretty universal, leaving no intervals of sound skin. When fully out the surface resembles that of a boiled lobster, the colour disappearing on pressure, but in severe cases it assumes a dusky red tint, and very exceptionally becomes livid or even petechial. In two or three days the eruption begins to fade, the subsidence being first observed, as might be expected,

at the parts first attacked, and about the eighth or ninth day of the fever the skin begins to peel, the desquamative process occupying one or two weeks. In slight attacks, and where the eruption is slight, the scaling is proportionately trifling, but in pronounced cases it is well marked, and occasionally the skin of the sole or palm, even including the nails, desquamates in one piece. This exfoliation of the epidermis is accompanied by some elevation of temperature, and great care is required during its continuance, else troublesome sequelæ are pretty sure to be encountered. The eruption is rarely altogether absent, although, when slight, it may be overlooked.

The diseases most apt to be mistaken for Scarlatina are certain cases of Erythema and Morbilli.

#### *Scarlatina.*

1. Infectious, and second attacks rare.
2. Eruption appears on second day, and with well-marked fever.
3. Commences usually on neck and top of chest, whence it spreads down the body.
4. Disappears slowly, and with decided desquamation.
5. The "strawberry tongue" is usually seen, and there is sore-throat.
6. Frequently complicated with Rheumatism, suppuration of the middle ear, or inflammation of the cellular tissue of the neck (Scarlatinal Bubo).
7. Frequently followed by Dropsy from implication of the kidneys.

#### *Scarlatina.*

1. History of exposure to the infection of Scarlatina.
2. Eruption appears on the second day, and is fully out in less than twenty-four hours.
3. Eruption not usually on the face.
4. Nearly as pronounced on extremities as on trunk.
5. Rash is scarlet.
6. Eruption uniform or punctated.
7. Desquamation usually a marked feature.
8. Accompanied by sore-throat.
9. The "strawberry tongue" is usually seen.
10. The fever is high.
11. Frequently accompanied or followed by Scarlatinal Bubo or Dropsy.

#### *Erythema, the so-called Erythema Scarlatiniformis.*

1. Not infectious, and relapses common.
2. Eruption is often the first symptom, and little, if any, fever.
3. May commence on any part.
4. Begins to fade in twenty-four to forty-eight hours, and desquamation trifling.
5. Tongue not specially affected, and throat not attacked, or only slightly congested.
6. An uncomplicated affection.
7. No sequelæ.

#### *Morbilli (Measles).*

1. History of exposure to the infection of Measles.
2. Eruption appears on the fourth day, and is not fully out in less than thirty-six hours.
3. Usually abundant on the face.
4. Much more scanty on extremities than on face and trunk.
5. It is pinkish-red.
6. Spots more discrete, and often arranged in crescents.
7. Desquamation slight.
8. Catarrh of whole respiratory tract precedes and accompanies eruption.
9. Tongue not characteristically affected.
10. The fever is less intense.
11. Sometimes accompanied or followed by Bronchitis or Pneumonia.

*e. Rubeola (Epidemic Roseola; Rötheln—German Measles).*—Some physicians seem to be under the belief that this is a hybrid of Measles and Scarlet Fever; others that it is a modified form of Measles—just as some still assert that Chicken-pox is a modified form of Small-pox. The general view, however, is that it is a substantive affection.

The eruption appears at the very outset or within a day or two, and at all events it is rarely so late of manifesting itself as in Measles: it may appear upon any part, but is especially apt to attack the trunk of the body and the extremities. The spots are larger, paler, and less elevated than in Measles; they are also more scattered, and have no tendency to assume the crescentic form: they are very itchy too, and much more fleeting, disappearing in a couple



of days, though they may reappear several times in the course of a week.

The fever is usually very moderate, and disappears as the eruption fades; the catarrhal symptoms of Measles are not present, and there is no sore-throat as in Scarlatina, or only to a very trifling extent; and there are none of the complications or sequelæ of either disease. This affection is especially common in children, and is said to be contagious, and sometimes epidemic; but one attack does not protect the system from another, nor are those who have had Measles or Scarlatina less liable to suffer than those who have not.

**F. Variola (Small-pox).**—In this disease the eruption makes its appearance on the second or third day of the fever (which, in typical cases, is ushered in by severe headache, severe pains, especially in the back, and vomiting), and the earlier it is observed the more serious is the case likely to be. It usually comes out in three successive crops, with an interval of some hours between each: the first on the face, neck, and upper extremities; the second on the trunk; and the third on the lower extremities. For the first two days it is papular in character, for the next four it is vesicular, and on the seventh or eighth it is pustular.

The papules, which for the most part are situated at the orifices of the hair or sebaceous follicles, are firm, red, acuminated, and about the size of millet-seeds; and, no matter how numerous they are, they never coalesce. On the third day they gradually become converted into vesicles, the contents of which gradually change from serum into pus, so that by the seventh or eighth day the eruption is pustular. Owing to the adhesion of the epidermis to the cutis in the centre of each, both vesicles and pustules are depressed in the centre (umbilicated); but when the pustules become much distended, this adhesion to the cutis gives way, and they become spheroidal. At this stage each is surrounded by a red areola, the pressure of the pus upon the capillaries beneath having driven the blood to the periphery. As the pustular stage becomes developed the parts swell, the amount of the swelling depending not only on the amount, but also on the seat of the eruption, being most marked where there is much loose cellular tissue, especially on the face, where it may be very great, and close the eyes completely. At this stage the odour emanating from the patient is peculiar and characteristic. When the papular stage is fully developed, the fever and discomfort in great measure subside, to reappear in the pustular stage, and this "fever of suppuration" or "secondary fever" is usually in proportion to the extent of the eruption. This is the most critical time for the patient.

About the eighth or ninth day of the eruption it commences to desiccate, a dark spot appearing on the top of each pustule; or the pustules burst, and the contents dry up into crusts, which generally separate between the eleventh and fourteenth days. Each crust, when it falls, leaves behind it a little prominence of a violet tint, which is the seat of repeated desquamation, the scales gradually becoming less distinct, until, in from four to six weeks, the desquamation ceases, and little depressions are left at the site of most of the pustules, which gradually become white. The number of pustules developed varies exceedingly: occasionally there may be only half a dozen; generally there are some hundreds; and not unfrequently they may be counted by the thousand. The face is the part which suffers most; and Dr. Aitken, in his excellent work on the "Practice of Medicine," says that if the total number of pustules reaches 10,000, at least 2000 of these will be found upon the face. In severe cases the eruption is so abundant that many of the pustules coalesce, constituting what is called "confluent Small-pox," and the disease is proportionately severe; but when the eruption is not abundant the case is usually mild (Varioloid), as when it occurs in persons who have been successfully vaccinated at no distant date (modified Small-pox). The mucous membranes are often attacked as well as the skin, though in a less degree, especially the mucous membrane of the throat and mouth, in which case salivation and sore-throat are usually present: the mucous membrane of the eyes may also be the seat of pustules, when conjunctivitis is present, and in some cases ulceration ensues, which may result in destruction of vision.

In the confluent form of Small-pox, albuminuria is as constantly present in the acute stage as in cases of Scarlatina; it seems to occur in about one-third of all cases, and in the last stage is occasionally associated with anasarca.

There are some who hold that Small-pox may co-exist with other fevers, such as Scarlatina and Measles. The accuracy of this statement is open to serious doubt, but sometimes a diffuse Erythema covers the whole body, or bright-red spots, varying in size from that of a lentil to that of a finger-nail (Roseola), appear first on the face, and later on upon the trunk of the body. This eruption usually lasts from twelve to twenty-four hours, and disappears as the typical Small-pox eruption comes out. Occasionally an erythematous eruption appears at the commencement of the disease on the belly and inner aspect of the thighs, to disappear gradually when the typical Small-pox eruption sets in, but the latter does not attack the parts which have been the seat of this Erythema. It is oftener observed in some epidemics than in others, in females than in males, and is frequently fatal, especially if the hyperæmia becomes purpurous (Hebra).

The diseases most apt to be mistaken for Small-pox are Chicken-pox (see that disease), Measles, and pustular Syphilitic eruptions.

When the eruption of Measles assumes the papular form it may be mistaken for Small-pox in the papular stage. But in the former the eruption, which is preceded and accompanied by catarrh of the respiratory tract, does not come out till the fourth day, and the papules are larger and darker in tint, and of uniform size throughout; whereas in Small-pox those on the face, which are first to make their appearance, are larger than those on the limbs, which are more recent. The fever, too, in Small-pox subsides when the papules are fully out, to reappear in the stage of suppuration; while in Measles the fever steadily increases whilst the eruption advances, and does not diminish until it is beginning to fade. In a few days all doubt as to the diagnosis is at an end, for while the papules of Measles subside into maculæ, those of Small-pox pass into the vesicular stage.

In Pustular Syphilis the pustules may resemble those of Small-pox, although they are not umbilicated, but the eruption does not invade the body in the regular order before mentioned, and does not pass rapidly through the papular and vesicular stages before becoming pustular, while it has a tendency to occur in crescents or circles. There is little if any accompanying fever, and although there may be ulceration of the throat, no pustules are to be observed upon the fauces. The eruption is not accompanied by the peculiar odour characteristic of Small-pox, and is much more chronic in its course. There is usually, too, a history of Syphilis having been contracted, and the pustular eruption is generally accompanied by other manifestations of Syphilis.

**G. Varicella (Chicken-pox).**—This disease, although it somewhat resembles, is altogether distinct from Small-pox, and therefore neither vaccination nor a previous attack of the latter afford any protection from it. Though not confined to, it is most frequently met with in children. The fever is usually very moderate, being generally most distinct when the eruption first comes out, soon after which it disappears. The eruption may be the first symptom observed, or it may not appear even until the fourth day of the fever: in the majority of cases, however, it occurs on the first or second day—first on the upper part of the body, especially the back; later on, on the face and extremities. As a rule, it is scanty in amount, especially on the extremities; but, no matter how abundant it may be, it is never confluent. At first it appears in the shape of red papules, which soon change into vesicles: these are not usually umbilicated, but on the second or third day their contents become opaque, and in a few days dry up into crusts, which in turn soon fall off. The papular stage may be absent, vesicles appearing from the first, and sometimes, especially if the eruption is scratched, the vesicles change into pustules, and then cicatrices may be left: occasionally, too, a few vesicles are seen upon the mucous membranes, especially on the fauces. The only disease likely to be mistaken for Varicella is an attack of Small-pox which has been modified by vaccination, in distinguishing which the following points may be of service:—

#### Varicella.

1. History of infection from other cases of Chicken-pox, or occurring during an epidemic of the same.

#### Varioloid (modified Small-pox).

1. History of infection from other cases of Small-pox, or occurring during an epidemic of the same.



2. Vaccination is no protection against its attacks.

3. Fever slight and of short duration, and no secondary fever.

4. Eruption appears from the first to the fourth day, and generally on the upper part of the body at first.

5. Papules less pronounced rapidly change into vesicles, and often do not become pustular at all.

6. Whole duration of the disease not more than a week, and no complications.

H. *Dengue* (Dandy Fever).—This fever—an excellent account of which is given by Professor Aitken in Reynolds' "System of Medicine"—is not met with in this country, but only in warm climates, especially in the East and West Indies. The first accounts we have of it came from Rangoon, where, in 1824, many of the troops under Sir Archibald Campbell suffered, and, about the same time, the great majority of the inhabitants of Calcutta were attacked; in 1827 almost the whole of the inhabitants of St. Thomas's were seized, and wherever it has appeared it has usually followed the track of human intercourse. It attacks all ranks and conditions of men, appears at all ages, and with equal frequency in the two sexes. It is highly contagious, and neither Scarlet Fever nor Measles affords any protection from its ravages.

It usually sets in suddenly—sometimes with rigor,—the fever being high from the first, and accompanied by redness and watering of the eyes, suffusion of the face, frontal headache, and severe pain in the spine and joints: there is often, too, heat and pain at the epigastrium, with vomiting, which may be very persistent, and in any case prostration is pronounced from the first. These symptoms rapidly increase in intensity, the joints become swollen, with a tendency, as in Rheumatic Fever, for the articular affection to flit about. In a day or two the joint affection, which is often excruciating, and the fever are relieved by perspiration, but on the third or fourth day all the symptoms return with increasing intensity, and an eruption usually appears. It seems to vary somewhat in character, sometimes having the appearance of Erythema with considerable swelling, sometimes resembling the eruption of Measles, or Scarlet Fever, or Nettle Rash, and, according to Dr. Furlonge, being intense in proportion to the intensity of the gastric disturbance: it may be associated with the development of boils. It commences on the hands, or on the hands and feet, whence it rapidly spreads over the body, although it may be partial, especially on the extremities. During its continuance it is often intensely itchy, but within twenty-four hours it begins to fade, being followed by more or less desquamation. About the sixth or seventh day, with the disappearance of the eruption, the fever subsides, and the patient appears to be convalescent, but in a short time there is a relapse, with reappearance of all the symptoms, which may be even as severe as the first attack, but it is of short duration, being usually at an end within two or three days; sometimes this is followed by a second or even a third relapse. Occasionally the disease is complicated with swelling of the lymphatic or salivary glands, and in the latter case salivation is a marked feature. Sometimes, too, ophthalmia is present, and occasionally subacute inflammation of the liver with jaundice occurs. Although a very painful affection, it is rarely fatal, and then usually as the result of syncope in the stage of defervescence; but it leaves the patient excessively weak, and often with a heritage of pain and swelling of the joints, so that recovery may not be complete for two or three months. There are some who hold that it is nothing more nor less than Relapsing Fever modified by climate—an

2. Vaccination—for a certain number of years at least—affords almost complete protection from Small-pox, unless the virus is already in the system at the time of vaccination.

3. Fever more pronounced, and secondary fever in the stage of suppuration.

4. Eruption appears on the second day, and first of all on the face.

5. Papules more pronounced. Eruption for two days remains papular; for next four days is vesicular; and on the seventh or eighth day is pustular; but may abort in the papular stage.

6. Whole duration of the disease much longer, and complications not unfrequent.

opinion, however, which does not appear to us to be well founded; and in any case it seems to be much more associated with heat, moisture, and vicissitudes of weather than with privation.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

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(Continued from page 210.)

### CHOLERA ASIATICA MALIGNA—Continued.

IF we accept the opinion that Cholera is a Pernicious Fever, we must not expect to find that it is either contagious, as small-pox is, or that it is propagated from individual to individual, as a specific poison, as syphilis is.

All my large personal experience of the disease in Bengal—its home—and all that I have read, confirm my belief that the essentials to its occurrence are (1) an atmospheric or telluric condition, epidemic or endemic, due, it may be, to some undetected abnormality in the air or in the earth—electric, volcanic, or other—or to the presence of some un-demonstrated microzyme or germ, which predisposes those who live within the area of its occupation to cholera; and (2) an exciting cause, such as panic, fatigue, want, or unwholesome ingesta,—say, a dose of Epsom salts, putrid fish or meat, crude fruit, or water impregnated with various impurities, such as cholera excreta, etc., etc., etc. No one has proved, to my satisfaction, that cholera stools contain a *specific poison* capable of propagating cholera to those who swallow it. True, some of the facts which are adduced in support of their doctrine by those who hold that cholera is propagated exclusively by cholera stools, are striking: but these facts are very few, considering the great prevalence of the disease and the vast number of those who have studied it practically; and, carefully sifted, the strongest of them fall short of absolute demonstration. Thus great weight is given to the fact that, in one of the later visitations of this metropolis by Cholera, the ravages of the pestilence were signally incident upon the East of London. Upon special inquiry, more than one of our best sanitary authorities discovered that, when the disease was most active, the inhabitants were drinking unfiltered water from the river Lea; and that, at the same time, this water had received cholera stools. This is a showy fact, but it quite falls short of demonstrating that a specific poison in water caused this outbreak, seeing that, whenever pestilence has visited London, its incidence has ever been most heavy at the East-end, where poverty and sanitary neglect, in a marshy atmosphere, have always prevailed, (a) and that filthy drinking-water has always been recognised as a valid *exciting* cause of cholera,—as a strong solution of Epsom salts also undoubtedly is.

Mr. Macnamara states (b) that the following remarkable accident occurred within his own observation:—A small quantity of a fresh rice-water stool, passed by a patient suffering from cholera, was accidentally mixed with some four or five gallons of impure water, and the mixture exposed to the rays of the tropical sun for twelve hours. Early the following morning nineteen people each swallowed about an ounce of this contaminated water. Within thirty-six hours five of these persons were seized with cholera.

This again is a striking fact. Still, it quite fails to prove that the rice-water cholera stool contains, and is

(a) In illustration of this point, I may as well quote *verbatim* the words which I used in November last (*Medical Times and Gazette* for November 11, 1882, page 577), when speaking of the general unhealthiness of East London, without having my attention at all particularly directed to the subject of Cholera:—"We read that, in the first year of Charles the First, Stepney lost 2978 persons by the Plague; and that in 1665 Plague again appeared there, and, according to the parish clerk's account, swept off 6583 persons." . . . "It is stated, in the 'Life of Lord Clarendon,' that 'the Plague had swept away so many seamen (Stepney and the places adjacent, which were their common habitation, being almost depopulated) that there seemed to be an impossibility to procure sailors to set out the fleet.' Stepney lost a character for salubrity, which it had somehow obtained, when, in 1814 and 1866, many cases of cholera occurred in its neighbourhood."

(b) "Cholera," Quain's "Dictionary," page 240.



capable of communicating, when swallowed, the specific poison of cholera, as the virus of syphilis and variola contain, and, when inoculated, communicate, those two diseases. Indeed, the fact that scarcely more than 25 per cent. of those who swallowed the poison became the subjects of cholera may be received with surprise by some that so many escaped, may be viewed by others as an evidence that no poison was swallowed, and must be received by all as proof that, if cholera stools do contain a specific poison of cholera, that poison is far less sure in its action on the system than various recognised specific poisons are. Thus, if three groups of persons (1) took scrupulous doses of arsenic, were (2) inoculated with small-pox, or (3) with syphilis, it can hardly be doubted that more than 25 per cent. of each party would manifest the specific action of each of these three poisons.

Then, should it be argued by one unacquainted with the natural history of Indian Cholera, that the fact that so many as five out of a party of nineteen were attacked with Cholera, creates strong suspicion of cholera-poisoning, I shall presently give a case, by Dr. Macpherson, in which five out of eighteen inhabitants of a house were attacked with cholera, three fatally, when there did not exist any evidence or suspicion of cholera poisoning. So, too, many cases have been adduced in which pilgrims, travelling in the course of a cholera epidemic, reached a town and were attacked with cholera, whereupon cholera appeared in that town. To this argument of the propagationists their opponents reply by inquiring, Would not the epidemic have appeared in the town, precisely as it did, if the pilgrims had never come? Does the admission of a cholera patient to a hospital impest that hospital with cholera?

In considering this question, it is noteworthy that nearly the whole of the Indian authorities who believe that cholera is communicable by the dejecta judge from their experience of epidemic cholera in the North-Western Provinces; whereas nearly all who have long worked in Lower Bengal, the fixed endemic area of cholera, doubt that this disease is at all communicable from man to man.

Thus, only a day or two ago, a brother officer, of remarkable distinction, who has retired after long service both Up Country and in Lower Bengal, told me that he long sought in vain for an instance of a servant who had got cholera in the wards of a cholera hospital. At length he found a *napit* (barber) who had been attacked under what appeared to be suspicious circumstances. To the inquiry, "Have you been shaving cholera patients?" he replied, "I never shaved a cholera patient."

During fifteen years, with some breaks, in which I was Senior Physician of the largest hospital in India, which was rarely free from cholera cases, no medical officer, nurse, or native hospital attendant (altogether a large body) was attacked with cholera. When I first assumed charge, *all the cholera cases were treated in the general wards*, side by side with the other sick. After some years, I fitted up a cholera ward for men; but, up to the day on which I left India, I could never obtain separate accommodation for the women. Still, in those fifteen years of never-ceasing cholera prevalence, I can recollect no patient who was attacked with cholera in hospital, with the exception of Willie Marshall, a little patient of my own. Therefore there is nothing in my own experience that favours the opinion, entertained by many, that every cholera patient is to be regarded as a centre from whom pestilence radiates.

At a recent meeting of the Epidemiological Society, Dr. Cunningham stated that he had collected nearly eight thousand cases of cholera attendants, of whom only 150 were attacked,—these, like all their neighbours, having to share the danger. Dr. De Renzy replied that it had been known that soldiers, told off to attend their sick comrades in the cholera wards of European corps, suffered largely. Here it should be borne in mind (1) that, when epidemic cholera attacks a European regiment, *all* are in great danger; that, (2) gallant as the English soldier generally is in battle, and devoted as he is in attention to his sick comrades, the first outbreak of cholera pestilence always raises panic—a strongly predisposing cause—throughout the regiment, especially when the medical officers are propagationists; whereas (3) work with cholera patients, which he knows by experience to be unattended with the slightest danger to himself, is the daily business of the native hospital attendant, who, although not courageous, generally has fair good sense.

At the Calcutta Medical College, I had a little town within

my walls, numbering, at mid-day, upwards of two thousand inhabitants, a very large majority of whom were in some way concerned with our very numerous cholera sick. Our sanitary arrangements were fairly good, but very far from perfect, seeing that the hospital was a faulty building, standing in a nice, but narrow, open space in the heart of a dense and most noisome bazaar, containing a little Venice of open sewer cesspools. In fifteen years, one patient was attacked in the hospital of 300 beds,—no attendant. In the adjoining College, one student was attacked, but no servant. This, in a city where cholera rages as a pestilence for four months in every year, and from which the disease is never absent. I look upon those two cholera cases merely as our share of suffering from the cholera influence which hung constantly over us throughout all those fifteen years.

Then, with regard to my own personal and home experience (which is also the experience of thousands of other well-to-do Englishmen, their wives and children, who lived in Bengal while I did),—in all those years, although we were certainly very scrupulous in choosing the best drinking-water, and in having that filtered and boiled, it cannot be doubted that, if there be a cholera poison—which, if it be a solid or a gas, must exist abundantly in the horrible dust (Budd) and fog of Calcutta—we must have taken it into our systems almost in everything that we swallowed and in every breath we drew, to say nothing of the fact that, during more than half my long service in India, we lived, with windows open day and night, less than a hundred yards to leeward of a cholera hospital.

All those who think as I do on this subject are constantly saying to the propagationists, "You are too ready to read *cause and effect* where we merely recognise *striking coincidence*." (c) Still, as the opinion that the disease is propagated by water containing cholera dejecta is held tenaciously, at this moment, as a guide in preventive legislation, by many physicians of great experience and scientific eminence, and as the question is one of such great importance to suffering humanity, I have no hesitation in stating my opinion that it ought, should Cholera arise among us here, to be put to a crucial test "*in corporibus volorum*." As this disease is not proved to be communicable to the lower animals, and as the anti-vivisectionists would probably not allow us to make experiments if serious doubt remained, the Government ought to be moved to permit it to be tried upon criminals condemned to death. As these poor creatures would be well attended to, I believe that, even if it be true that the dejecta contain and communicate the specific poison of cholera, at least three-fourths of their number, if not all, would escape with life.

Until this is done, and afterwards, I shall retain the belief that, on every ground, we should as far as possible avoid swallowing cholera matter, not because I consider that this is the specific poison of cholera, but because it is a putrid irritant which is likely "to disagree," and so to become an *exciting* cause of cholera, as Epsom salts and putrid fish unquestionably are.

The discovery of the cause of Cholera will probably never be vouchsafed to a man of narrow and one-sided views. I believe that nothing valid will be revealed to us unless we grasp and correlate *all* proved facts. He who enters upon the quest must recognise no opponents. All working in the field must be regarded as fellow-labourers and helpers, save those who are absolutely ignorant or dishonest. He who is so happy as to grasp the truth will certainly perceive that it is reconcilable with all the good work of men holding all opinions. "Why," it may be said, "you affect broad views, while you are really a bigoted anti-propagationist!" My reply is, "Not so; I am an agnostic, with a strong anti-propagationist impression, which may possibly be removable, but which is quite unshaken at present."

As I have already said, I have so generally noticed that those of my most experienced brother officers who have been propagationists have made their observations chiefly in the epidemic field of cholera in Upper India, while the anti-propagationists have generally practised in the Endemic area of Bengal Proper,—a very large proportion of those whose observations have been restricted to the cholera epidemics of Europe being propagationists,—that it stands as a fair

(c) Mr. Froude has lately recalled Luther's commentary upon astrology. "It is like dice-throwing. You say that you have a pair of dice that always throw twice six—you throw two, three, four, five, six, and you take no notice. When twice six turns up, you think it proves your case. The astrologer is right once or twice, and boasts of his art. He overlooks his mistakes."



question, Is or is not Epidemic cholera propagated by the dejecta, while the Endemic disease of Lower Bengal is not? My mind has, for many years, been open to this question, which has often occupied my thoughts. But I have never seen or heard anything which, upon close investigation, shakes my firm impression that a specific cholera poison is not contained in the stools.

Pace M. Fauvel, I do not hold these views "in accordance with the commercial interest of my country," (d) being quite unaware what that "interest" is—save that it appears to me that, if I were a Bristol merchant, it would not be to my "interest" to see that port impested by cholera. It has never been my fortune to enjoy the rest afforded by a prolonged term of quarantine; but, having been conducted through the Alexandria railway station in five journeys to and from India, I can affirm that, adding together all the terms of my stay at that place, not three hours of my life have been spent on shore at Alexandria. I have been conveyed in what appeared to be a pig-boat to and from the steamer, and have been taken across the desert in a vehicle of bare boards which had the look and comfort of a sheep-van. I have seen an Egyptian receive a sixpenny-piece from an Englishman in the bowl of a gravy-spoon filled with water; and I, together with the rest of my fellow-passengers, have been constrained by a straw-hatted official to soak and wring out, in public, the contents of my clothes-bag on the deck of a P. and O. steamer, in the shadow of Monte Christo's prison—apparently with an intention of liberating the cholera-germ, and of giving it a habitat in French waters. Still I remain absolutely unconvinced of the preventive efficacy of sanitary cordons and of quarantine in cutting off the approach of that which does not travel, and in arresting the propagation of that which is never propagated.

(To be concluded.)

### ON TURPENTINE IN SECONDARY SYPHILIS, AND IN PHAGEDÆNIC SORES FOLLOWING FEVER.

By Deputy Insp.-General BRINSLEY NICHOLSON, M.D.

THE experiences of this most useful medicine which have befallen me in these two classes of disease may prove of interest to at least some.

1. Having taken over charge of a dépôt hospital, I found in it two exactly similar cases. Both had had syphilis, and both had returned to hospital with syphilitic plaques—induration of the skin and subcutaneous tissue above and below Poupart's ligament. Both had apparently recovered under iodide of potassium and rest, and both had quickly come back to hospital with relapses of the same. When I took charge they were again under the iodide and confined to bed; indeed, they moved as "lameters" and with difficulty. The treatment was continued, merely adding local compression by means of leaden plates and bandages. They appeared to improve, and in a reasonable time one seemed to be, and pronounced himself, quite well; but, in view of his previous history, he was retained a little longer under treatment, and then returned for a while to convalescence and light duty. Very shortly, however, he came back as bad as ever; so, recurring to the same local treatment, I put both him and the other case on turpentine, in doses, if I remember rightly, of a drachm twice a day made into an emulsion with liquor of potass and two ounces of water. Both were quickly cured, and, being discharged, did not return.

Some year or two afterwards, at the Cape, two cases were brought before me by a brother medical officer—one of syphilitic plaque, by no means so extensive as those just spoken of, but which had resisted all treatment; the other of similarly obstinate orchitis, I think syphilitic. I narrated my experiences of turpentine, as given above, but said that I could suggest nothing beyond strapping for the orchitis, as—building on my success in syphilitic plaques—I had tried turpentine in orchitis from different causes, in syphilitic buboes (suppurating and non-suppurating), and in other swellings, but without the slightest success. My

(d) Report of a controversy in the Paris Académie de Médecine (*Daily Telegraph* for August, 6, 1883).

friend's cases turned out conformably—the plaque was cured, the orchitis was not.

2. In West Australia I found occasional cases of an apparently endemic and peculiar continued fever, generally of a mild type, and never, in my experience of three years, fatal. A civilian, whose children, though apparently well nourished and well formed, did not to a practised eye show very healthy constitutions, called me in to a son of about ten or over. This fever had attacked him in a rather more severe form than was usual, but one could not call it severe. He went through it apparently successfully, but it lingered on him longer than usual, and his convalescence threatened to resemble that perpetual ill-health which sometimes follows on typhoid fever. In its course he, being still confined to bed, was unexpectedly attacked with a couple of slowly progressing phagedænic and ashy-coloured sores, one circular and more superficial over the right trochanter, the other more longitudinal and deeper in the middle front of the upper part of the left thigh. The former eventually left the tendinous surface exposed, but unaffected. In the latter, when at its worst, by lifting a yet healthy but flabby and loose piece of flesh still attached by its lower part, a little above an inch in length of the femur could be laid bare, besides that smaller portion which was already bare above it. The local remedies used were (the edges of the ulcers being swollen)—compression by leaden plates and bandages re-applied every third day, and the use at the same time of lotions or unguents, or of nitrate of silver and sulphate of copper, and more especially of a lotion of kino (or catechu) and myrrh, this (the tinctures being more or less diluted with water) being a favourite application of mine in syphilitic or other unhealthy sores, care being taken that if kino were used it should give a red and not a brown-red colour when so diluted. Such treatment was clearly of service in restraining the unhealthy, and in some slight degree restoring healthy appearance and action. But all alterative and tonic treatment seemed useless, until I began with twenty minims of turpentine twice a day; and even then the improvement was very slow and gradual. At last, however, I had more hope; the swollen appearances at the margins diminished, the exposed surfaces became more healthy, and the healing process progressed favourably. In every way, in fact, the sores looked well, and seemed advancing to a speedy cure. Unfortunately, I was called away by duty to another part of the colony for about a week or so, and had to give over the case for that time to another practitioner. On my return all was worse; the old state and appearances had returned, and, though the sores had not fallen back to their former size, healing had more than ceased. The statement I got was this—that they had become so healthy-looking, and were advancing so favourably, that my substitute had left off the compression and omitted the turpentine. The result was, the cure was stopped, and though under a recurrence to the same treatment the trochanter sore at length healed, it was some months before that on the thigh did, and then the child was yellowish, pale, sickly-looking, emaciated, lame from the large loss of flesh about the thigh-ulcer, and only able to go about in a perambulator. At that time, my period of duty in the colony having expired, I left, and afterwards heard that my patient had died, though I received no particulars of his illness or death.

Whether I tried turpentine in this case as a local application, I cannot now distinctly remember. If I did not, it was, I think, a regrettable omission.

ADMINISTRATION OF IODIDE AND BROMIDE OF POTASSIUM AND SALICYLATE OF SODA.—According to Dr. Seguin these salts are best exhibited in slightly alkaline, natural or artificial, carbonated waters. Given in this way they are less irritating to the mucous membrane of the stomach, the disagreeable taste is very much masked, and the salts are more quickly and thoroughly absorbed.—*Phil. Med. Rep.*, July 28.

THE POISON OF LIZARDS.—Drs. Weir Mitchell and Reichert find that the full-grown lizard will bite and cause a wound that may prove fatal. Unlike that of other reptiles, its saliva is alkaline, not acid. A little injected into a pigeon caused the death of the bird (which was strong, fat, and plump) in less than nine minutes.—*New York Med. Record*, August 4.



## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.

#### DERMOID OVARIAN TUMOURS.

(Under the care of Mr. KNOWSLEY THORNTON.)

(Continued from page 383 of last volume.)

BEFORE proceeding to give brief notes of the dermoid ovarian cysts which I have removed by ovariectomy at the Samaritan Hospital, I have to add two cases, which I had overlooked, to the list of malignant dermoids already described.

(Case 247 in Ovariectomy Tables—not yet published.)

The first was that of a woman, aged thirty-nine, married twenty-two years, and mother of one child aged twenty-one. The patient had always enjoyed good health, but was of a phthisical family. She had only noticed the enlargement for six months, and during the whole time had suffered very severe and unusual pain in the left side at the monthly periods.

I performed ovariectomy on June 29, 1881, and removed a sarcomatous dermoid of the left ovary, with such intimate adhesion to the omentum and small intestine, that I had regularly to carve a coil of the latter out of the wall of the tumour, and the intestine for some distance on each side of the adhesion was evidently infiltrated with new growth. The right ovary was healthy. In places the cyst-wall was two inches thick, pink and fleshy when cut, and there was a considerable growth of long black hair in its interior. It is worthy of note that the patient was fair, with fresh complexion and brown hair.

She made a rapid recovery, but died of recurrence in the abdomen in the following May, 1882. Dr. McWilliam, of the Temperance Hospital, kindly informed me of her death, and also that the new growth, which was chiefly in the right iliac fossa, began to grow six months after the ovariectomy. She had six months' good health, and then cachexia was rapidly developed.

(Case 242 in Ovariectomy Tables—not yet published.)

The other case was that of a young woman of thirty-one, married ten years, and mother of four children. She appeared to be in very good health when admitted into the Hospital. Had first noticed a "throbbing lump" in the left iliac region two years and a half ago, and just after her last confinement. Growth was rapid at first for some months. Then she had a miscarriage and lost much blood, and after this the tumour seemed hardly to grow at all.

I performed ovariectomy on June 2, 1881, and removed a semi-solid dermoid tumour of the right ovary, with the pedicle twisted one and a half turns, so as greatly to obstruct, but not stop the circulation. This condition doubtless dated from the miscarriage, and explained the cessation of growth. There was a great deal of free fluid in the peritoneum. The uterus was healthy, but the other ovary was large. The tumour was a sarcoma, with bone, hair, etc., scattered in small portions throughout the solid parts, just as in another of the cases already described. The mass weighed ten pounds.

The patient made a rapid recovery, and went home on the twenty-first day after the operation. I have just heard from Dr. Miller, of Eye, who placed her under my care, that she is well and strong, free from any sign of recurrence, and in better health than for years before the operation. It is an interesting subject for speculation, how far the changed nutrition following the twisting of the pedicle may have influenced the nature of the tumour.

Passing now to the ordinary dermoid tumours, I shall give only very brief notes of the individual cases, as they are numerous. What I wish to do is to put side by side any facts which seem to throw light on the tumours as a class—first, their etiology; second, their differential diagnosis.

Case 1 (Case 17 in Ovariectomy Tables).

A. J. M., thirty-seven; no children. Menstruation always scanty. A big, strong, Welsh woman, with full colour and dark complexion. No family history obtainable. Growth of

tumour rapid. Had had pain in left side for eighteen months, and enlargement for about a year.

Ovariectomy, January 3, 1876. The tumour was chiefly solid, with large masses of bone, many of them containing teeth (several dozen teeth of various kinds), and large masses of hair; weight twenty-six pounds. The other ovary was of the size of a pigeon's egg, and contained a cyst full of fat and hair. It was also removed. The patient recovered, and remains in good health.

Case 2 (No. 18 in Ovariectomy Tables).

Mrs. J. (not a Samaritan Hospital case). I will refer briefly to some points in the case in my remarks at the end.

Case 3 (No. 19 in Ovariectomy Tables).

Also a private case.

Case 4 (No. 45 in Ovariectomy Tables).

E. W., single, aged twenty, a dark, delicate-looking girl, with fresh colour; menstruation quite regular. Had noticed enlargement in right side of abdomen for four years. Never any serious pain; occasionally a little burning sensation in right side. No family history. Had been once tapped by Mr. Square, Plymouth.

Ovariectomy, November 21, 1877. Tumour of left ovary removed; the right ovary and uterus healthy; weight twenty-nine pounds. Recovered, and remains well. It was a large simple cyst, and inside it, and opposite the site of the pedicle, there was a secondary cyst with fatty contents, dark hair, and a bony mass, with an incisor tooth growing in it. This smaller cyst was one cavity of a multilocular mass, in other parts of which there were bony plates.

Case 5 (No. 60 in Ovariectomy Tables).

E. A., married four years, aged twenty-nine. Had two children before marriage, and a miscarriage since. A dark woman, with fresh colour, and not emaciated. Menstruation regular and free. No family history. Had noticed a lump in the left iliac region ever since a bad fall which she had two years or more before admission.

Ovariectomy, February 21, 1878. Dermoid cysts of both ovaries removed; weight four pounds. The smaller (left side) tumour had growing from its wall a lot of little pink fleshy nodules, which were evidently the first buddings of dermoid structures. I have observed them in several cases, and shall refer to them again. Recovered, and remains well.

Case 6 (No. 86 in Ovariectomy Tables).

M. J. H., aged twenty-six, married two years; no children. Menstruation always quite regular. First noticed "tender lump" in right iliac region about eight months before admission. Attributes the growth to a bad fall on the Crystal Palace stairs just after marriage, when she hurt the right side very much, and was in a faint for nearly three hours. No family history of importance.

I performed ovariectomy on July 22, 1878, and enucleated a dermoid cyst of the left ovary. The operation was one of the worst I have ever performed, and the patient never recovered consciousness, and died in thirteen hours. The tumour weighed eighteen pounds.

Case 7 (No. 102 in Ovariectomy Tables).

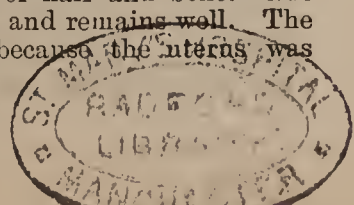
E. D., aged fifty-three, and mother of five children; blind. Was admitted from the Gravesend Workhouse in March, 1879. Tumour made its appearance just after the menopause six years ago (i.e., when she was forty-seven).

I performed ovariectomy on March 12, and removed a dermoid cyst of left ovary weighing twenty pounds, and another of the right ovary weighing seven ounces. The latter had lost its pedicle, and become attached to the omentum and cæcum. The patient made a good recovery.

Case 8 (No. 167 in Ovariectomy Tables).

E. C., single, aged forty-seven. Menstruation always quite regular. Disease of right hip, with contraction. Inflammation of bowels eighteen years ago, and again nine years ago. Family history has no bearing on case.

Ovariectomy, March 17, 1880. A dermoid cystic tumour, weighing twenty pounds, was removed with great difficulty, owing to the very extensive adhesions and encapsulation of its base in the left broad ligament. The tumour contained much liquid fat and large masses of hair and bone. The patient made an excellent recovery, and remains well. The right ovary was also removed, because the uterus was enlarged with fibro-myomata.





IN 1881, Professor Erb published his first series of 100 cases of tabes dorsalis, showing the frequency of previous syphilis in this disease. In 88 of these cases there had been previous



syphilis, in 12 there had been none. Since that date, Fournier, in his work on Locomotor Ataxia of Syphilitic Origin (1882), gives the percentage of cases in which there has been previous syphilis as 93; Vogt, a former opponent of syphilitic tabes, in his latest statistics, gives the percentage as 81.4. The *Berliner Klinische Wochenschrift*, No. 32 of this year, contains a paper by Erb giving a second series of 100 cases of tabes dorsalis. Out of this series, 9 only of the cases had had no syphilis, while 91 had had previous syphilis. Of these 91 cases, 62 had undoubtedly secondary syphilis, 29 had primary sores, but no secondary symptoms were noticed. Of these 29 cases, 5 had true hard sores, 10 were treated with mercury and iodide of potassium, and in 14 the treatment and the nature of the sore are not noted. The tabes dorsalis manifested itself at the following periods after infection with syphilis:—13 cases occurred between the first and fifth years, 31 between the sixth and tenth, 25 between the eleventh and fifteenth, 15 between the sixteenth and twentieth, 5 between the twenty-first and twenty-fifth, 1 between the twenty-sixth and thirtieth, and in 1 case the period was unknown. Thus 69 of the 91 cases occurred during the first fifteen years after infection, 15 in the period between fifteen and twenty years, and 6 still later. As a check observation Professor Erb ascertained that of 1500 patients who attended his clinic, who were not tabetic, 77.25 per cent. had never had syphilis, and that 22.75 per cent. had been infected. Of these latter 10.25 had suffered from secondary symptoms, and 12.50 from chancres only. From these observations he concludes that syphilis is such an important factor in the etiology of tabes dorsalis, that scarcely anyone who has not had syphilis or a chancre has a chance of becoming tabetic. As to the other factors in the etiology of tabes (viz., heredity, catching cold, fatigue, sexual excesses, and injury), he considers them of much less importance: of the 100 cases of the present series he gives in 36 cases syphilis as the only assignable cause, in 17 cases syphilis and cold, in 8 syphilis and fatigue, in 7 syphilis and excesses, in 2 syphilis and injury, in 15 syphilis, cold, and fatigue, in 4 syphilis, cold, and excesses, in 3 syphilis, fatigue, and excesses, in 1 syphilis, excesses, and injury as the assignable causes, and in 3 cases cold alone, in 2 cases fatigue alone, in 1 case excesses alone, and in 1 injury alone. Syphilis is thus the most frequent and important change of condition that favours the development of tabes, the other factors generally acting in company with syphilis.

The frequent paralysis of ocular muscles, the affection of the pupils, the presence of symptoms pointing to syphilitic affections of the cerebral nervous system (viz., hemiplegia, apoplexy, epileptiform attacks, and frequent headache); the presence of syphilitic affections of the skin, the mucous membranes, and the bones; the fact that in cases of tabes occurring late in life the patients have usually acquired syphilis late in life (in one case the patient acquired syphilis at the age of forty-eight, and became tabetic at the unusually late age of fifty-eight; in another case the patient, who had acquired syphilis at the age of thirty-eight, became tabetic at fifty); the relative frequency of syphilis and tabes in men and women (being in each disease as ten to one), the relative frequency of tabes and syphilis in women of the lower classes, the relative rarity of both in women of the higher classes;—these facts Erb considers of great importance in assigning syphilis as the most important factor in the etiology of tabes. The occurrence of previous syphilis in tabetic women he considers not at all infrequent, for, of 13 cases of tabes in women, 6 had a clear history of syphilis, 4 had no history, and in 3 cases the history was doubtful. From these statistics Professor Erb holds that syphilis is one of the most important, if not the most important, cause

of the occurrence of tabes. That tabes is a specific disease, a late manifestation of syphilis, he does not consider to be proved, though he thinks it extremely probable.

#### ERRORS IN DRESS: A CAUSE OF SCROFULOSIS.

In the production of all forms of strumous disease there occur a series of factors, in addition to that of hereditary tendency, which may be classed as preventable. The chief of these—foul air and insufficient or inappropriate food—have of late received the lion's share of attention at the hands of the apostles of hygiene; and great changes have been, and are being, made in the domestic life and economy of the poorer classes, which must eventually tend to reduce the formidable array of deaths and diseases due to preventable causes which at present confronts us. But while attention has thus been given to the regulating of the pulmonary and gastric functions of the scrofulously inclined, a third, and almost as important a function, has been allowed to pass with but scanty notice.

The importance of the skin as an excretory organ, and the extent to which its function is daily interfered with, not only by the sickly, but also by the vigorous and strong, are points which claim serious consideration at the hands of physicians and hygienists. In a comprehensive monograph on the subject, (a) Dr. O. Paulsen, of Hamburg, has undertaken to show the part which errors of dress, and consequent interference with the cutaneous functions, may take in the production of scrofulosis, and especially in the scrofulous conditions of the organs of special sense. The large proportion of water which the skin daily excretes has been over and over again observed and noted by physiologists, and the results of artificial suppression of the excretion by enveloping the human body in india-rubber, and the bodies of small animals in an equally impervious coat of varnish, have proved the importance of the function as the regulator of body-temperature. The amount of perspiration from any surface is to some extent a measure of the fulness of the bloodvessels supplying it. Influences, therefore, which hinder the occurrence of the sweating must likewise affect the condition of the bloodvessels. Such influences are exercised by anything which tends to check the due evaporation of the cutaneous moisture. In an atmosphere overcharged or nearly saturated with aqueous vapour this evaporation is diminished, and the same thing must of necessity happen where the clothing of the body is of such a nature as to prevent evaporation from taking place with sufficient rapidity. In almost all grades of society the choice of materials for clothing has been determined hitherto more by the dictates of custom, tradition, or present fashion than by any consideration of furthering or hindering the natural function of the skin. Numerous experiments have been from time to time carried out by von Pettenkofer, Brieger, and others, with a view to determining the relative value of various materials from this point of view. The results obtained prove that the permeability of flannel and woollen stuffs is nearly double that of linen, and more than double that of silk. In confirmation of these, Dr. Paulsen himself conducted a series of experiments by observing the degree of moisture in his own bed during a number of nights, each time being covered by bedclothes of different material. His observations showed that whilst sleeping under a woollen cover the increase of moisture was 5° over that of the external air; under a linen coverlet the increase rose to 12°, and under a feather quilt from 30° to 40°. The excretion of carbonic acid gas he found to be hindered under every form of cover, with the exception of the woollen

(a) "On the Causes and Treatment of Scrofulosis," by Dr. O. Paulsen Hamburg. Berlin: Aug. Hirschwald. 1883. Pp. 39.



one. A rise of temperature also was noticed to be produced and similarly an increased frequency of pulse and respiration was observed. That such conditions are unfavourable from a hygienic point of view needs no emphasising. How, then, do they affect those persons predisposed to strumous affections? Depending, as they chiefly do, on disturbed nutrition and insufficient assimilation of food, the circulation in such cases is sluggish, and liable to give rise to congestion in lymphatic channels and glands. With the diminished activity of the cutaneous vessels, the increased action of the heart and lungs, and the rise of temperature, this congestion becomes increased, and general nutrition still further interfered with. Regarding the marked tendency which some of the organs of special sense evince to become affected with strumous disease, Dr. Paulsen calls attention to the fact that the head and neck being alone uncovered are liable to extreme sweating, perhaps vicariously, and by the excessive evaporation the cutaneous vessels are cooled, and thus congestion of deeper-lying vessels is set up. To what extent this is true it is difficult to determine, but it is a striking characteristic of all the so-called strumous affections of the organs of special sense that they give evidence of imperfect nutrition. In the clothing of babies and young children the claims of the skin for liberty of action are perhaps more flagrantly disregarded than at any other period of life. Not only do children sleep by night for a greater number of hours than adults, often under the most impermeable forms of covering, but even by day an absurd regard for custom frequently condemns them to a casing of various layers of linen and even silk, in which free evaporation is as impossible as its prevention is injurious. That persons of all ages, from babyhood to manhood, may maintain health under such unfavourable hygienic conditions cannot be denied, but that the same conditions are factors in the production and maintenance of those forms of impaired nutrition comprised under the head of scrofulosis is equally certain. Hence in the treatment of such cases this factor must always be taken into consideration. In the treatment of strumous disease of the nose, ears, and eyes, Dr. Paulsen claims to have obtained success by attention to this element of checked perspiration in numerous cases where the ordinary local and dietetic treatment have failed without it. The means to be adopted are simple. No alteration in the shape or style of clothing need be insisted on; the use of materials through which evaporation can take place, in preference to those through which it cannot, forms the simple and efficient means of avoiding the dangers which a checked cutaneous perspiration must always present to those predisposed to strumous disease.

### THE WEEK.

#### TOPICS OF THE DAY.

Just before the close of the session, a deputation, representing nine suburban local boards and sanitary authorities and 150,000 inhabitants, essayed the task of interviewing the Home Secretary, to complain of the obstacle to providing their own water presented by Section 52 of the Public Health Act, which hands them over entirely to the existing water companies. Mr. Wright, of Ealing, explained that their sole object was to suggest the repeal of an Act which prohibited local boards from having any waterworks in a district where a water company was in possession of the land. They did not desire to establish any opposition, but only to acquire what might be termed a domestic supply by means of their own works in their own territory. Of course, suburban boards could not buy up the enormous existing companies, but he contended that they ought not to be deprived of the power of utilising local supplies of

water for their domestic purposes. For instance, in his own district of Ealing there would, he knew, be no difficulty in obtaining an effective supply for such requirements. In reply, Sir W. Harcourt admitted that the prohibition referred to was a very great hardship, but he thought it would be a very difficult thing to get over an Act of Parliament passed so recently as the year 1875; he was perfectly at a loss to understand how such a prohibition came to be inserted in the Act, since it was certainly not fair that a district should be compelled to take its water from a particular trading company, when it might get its water better, and perhaps cheaper, elsewhere for itself. He thought this matter was somewhat different from the general question of the metropolitan water-supply, and it was one deserving of very careful consideration. He could not, however, at that time give any definite answer on the subject, but he assured the deputation that he would take every pains to consider if there was any, and if so what, remedy to meet the case. We venture to think that Sir W. Harcourt might have arrived at a solution of the problem which so puzzled him by a very little consideration of the way in which Acts have been rushed through Parliament at the end of the session just closed.

The annual rate of mortality in twenty-eight great towns of England and Wales averaged, according to the return of the English Registrar-General for the week ending August 18 last, 20·2 per 1000 of their aggregate population. The six healthiest places were Halifax, Norwich, Bristol, Hull, Cardiff, and Bradford. In London, during the same period, 2652 births and 1437 deaths were registered. Allowing for increase of population, the births were 27 and the deaths 149 below the average numbers in the corresponding week of the last ten years. The annual rate of mortality from all causes, which had steadily declined in the four preceding weeks from 23·5 to 17·3 per 1000, rose again this week to 19·0. During the seven weeks of the current quarter to the 18th ult. the death-rate averaged 20·5 per 1000, against 23·6 and 18·6 in the corresponding periods of 1881 and 1882. The 1437 deaths included 2 from small-pox, 70 from measles, 35 from scarlet fever, 9 from diphtheria, 26 from whooping-cough, 2 from typhus, 9 from enteric fever, 1 from an ill-defined form of continued fever, 119 from diarrhoea and dysentery, and 1 from simple cholera, making altogether 274 deaths attributable to zymotic diseases, or 137 below the corrected average number in the corresponding weeks of the last ten years. The deaths referred to diarrhoea and dysentery, which had steadily declined in the four previous weeks from 350 to 94, rose again to 119 during this week, but were 116 below the corrected average—110 were of children under five years of age, including 86 of infants under one year. The Registrar-General's Return for the week ending August 25 shows that in London the annual rate of mortality from all causes declined again to 17·9. The 1356 deaths registered during the week included 1 from small-pox, 52 from measles, 49 from scarlet fever, 19 from diphtheria, 27 from whooping-cough, 10 from enteric fever, 3 from ill-defined forms of continued fever, 63 from diarrhoea and dysentery, 2 from simple cholera, and not one from typhus, the total of deaths referred to these causes (viz., 233) being 145 below the corrected average number. The deaths attributed to diarrhoea and dysentery fell to 63, being 152 below the corrected average; 49 were of infants under one year of age. The deaths of two adults were referred to choleraic diarrhoea and to simple cholera. In the Outer Ring 27 fatal cases of diarrhoea were registered.

The grievances of the officers of the Indian Medical Service have been frequently made the subject of questions in the House of Commons lately, and the replies given by



the Under Secretary for India have not been satisfactory. They have not been inaccurate, but have been cleverly framed to represent that all is really quite right, and that, whatever little difficulties there may be, they are merely temporary, and are being remedied. On the last occasion of being questioned on the matter, just before the end of the session, Mr. Cross showed some impatience with querists who would not be satisfied, and intimated that no additional steps would be taken to remedy the grievances especially complained of, by the junior officers of the Service. But it appears that the Secretary of State for India adopts a rather different tone in an official communication to the Chairman of the Parliamentary Bills Committee of the British Medical Association. A statement of the grievances of the Service had been laid by that Committee before the Secretary of State, and, in reply to it, he says that the general question of the organisation of the Indian Medical Service is at the present moment under the immediate consideration of the Government of India, with the view of removing, as far as possible, the inconvenience found to exist under the present system. "Inconvenience" is, we suppose, an official dilution of a "grievance," and the use of it may really be taken as an admission that grievances do exist. We may have something more to say on that matter soon, but one of the greatest of possible grievances that any service can suffer is, that its organisation should be frequently under the consideration of the Government.

The annual general meeting of the governors of the Chelsea Hospital for Women was recently held in the new portion of the building, Mr. Debac, the treasurer, presiding, in the unavoidable absence of Mr. Anthony W. Biddulph. Amongst those present were Mr. Frank Marshall, Dr. Robert Barnes, Dr. Fancourt Barnes, Dr. Edis, Dr. Landon, Mr. R. Moreland, etc. The Secretary having read the report, on the motion of the Chairman, seconded by Mr. Moreland, the same was unanimously adopted. The governors then confirmed the election of the following additional staff:—Physician, Dr. Fancourt Barnes; Assistant-Physicians, Drs. Horrocks, Travers, Dickinson, and Mackern; Pathologist, Dr. Burnet; Anæsthetist, Dr. Fenton-Jones. The Board of Management was re-elected, with the addition of Sir Algernon Borthwick. The Treasurer, Mr. Debac, was also re-elected; and the following ladies were added to the Ladies' Committee:—The Countess Cadogan, Countess St. Germain, Lady Borthwick, and Lady Codrington.

The 1st of September has been fixed upon for this year's collection of the so-called working men's contribution to the funds of the London hospitals—in fact, Hospital Saturday. We are informed that to 15,000 different establishments connected with the industrial life of London an appeal has been made for a better response than has as yet been elicited from the London workmen. During the ten years of its existence the Hospital Saturday Fund has, it is stated, contributed about £50,000 to the hospitals and dispensaries of the metropolis, and it is rightly thought that the working-classes should subscribe much more liberally towards the support of these institutions, by which they certainly benefit the most. Every legitimate effort to increase the funds of the London hospitals should be encouraged in every way, but we must again point out the manifest incorrectness of crediting the London workmen with the whole of the subscriptions collected on these Hospital Saturdays. To begin with, the street collections, supervised by 1200 ladies, are swelled by donations contributed by others than working men, according to the common acceptance of that term; and if, as is publicly announced, collections are to be made at the Fisheries Exhibition, Covent

Garden Theatre, etc., the amount realised is hardly likely to be subscribed by workmen. We venture to think that the basis of this Hospital Saturday collection is incorrect: the London workmen, as was recently suggested by one of their number, should be able, by a uniform subscription of sixpence or a shilling each, once a year, to raise a sum which would even surpass the total realised from the wealthier members of society on a Hospital Sunday, and they might then with reason object to any extraneous aid being called in to supplement their efforts in this direction. Meanwhile, there would not be the slightest objection to an annual collection for our deserving and sorely pressed metropolitan hospitals from the peripatetic and travelling portion of the community—say Hospital Wednesday—when all the railways and steamboats, theatres, and exhibitions might be asked to co-operate for such a praiseworthy object. But, under its present conditions, we are compelled to maintain that the coupling of Hospital Saturday with the name of the working man only is a palpable absurdity.

The Bill introduced by Government to make better provision for the prevention of outbreaks of formidable epidemic, endemic, or infectious diseases, gives to the local sanitary authorities in England and Ireland greater powers for borrowing money, if necessary, for the carrying out of regulations made for the following purposes:—For the speedy interment of the dead; for house-to-house visitation; for the provision of medical aid and hospital accommodation; for the promotion of cleansing, ventilation, and disinfection; and for guarding against the spread of disease. The Public Health (Ireland) Act, 1878, is also amended so as to enable the Local Government Board to direct urban sanitary authorities to see to the execution of any regulations made by the Board, either independently or jointly with the Poor-law guardians.

A special meeting of the Northampton Town Council was held on Saturday evening last to consider the question of the water-supply. The Town Clerk stated that twelve months' notice was necessary before the Council could purchase the present water company's works. The chairman of the Water Committee said that some time must elapse before a full supply could be obtained. The Council eventually passed a resolution, calling on the water company to flush the sewers and water the streets without delay. Water for this purpose might, they added, be obtained from the river. The proposed purchase of the company's works was referred to a committee.

The Managers of the Metropolitan Asylums District having found that the hospital accommodation is insufficient for the needs of the metropolis, have decided, subject to the sanction of the Local Government Board, to erect a large hospital for fever cases at Upton Cross, West Ham. The scheme, however, meets with much opposition in the neighbourhood.

#### SANITARY PRECAUTIONS IN HACKNEY.

THE house-to-house inspection of dustbins and of drainage arrangements, instituted in the district of Hackney by Dr. Tripe and the Sanitary Committee, is nearly completed. About 30,000 houses have been inspected, an extra staff of men having been engaged for the work, and it is said that the sanitary authorities of the district have not been so busily employed since the year 1866. The better classes of houses, not hitherto included in the inspections by the ordinary staff, are said to have been found sadly defective as regards sanitary arrangements. Great attention is being paid to the water-supply, particularly in houses erected before 1856, in which the use of modern appliances is being enforced.



## NAVAL MEDICAL DEPARTMENT.

AT the competition for commissions in the Medical Service of the Royal Navy, held on August 13 and following days, in the Hall of the University of London, Burlington-gardens, the undermentioned gentlemen were the successful candidates:—

	Marks		Marks.
F. J. Lea . . . . .	2,150	L. P. J. Coolican . . .	1,945
T. C. Rowland . . . .	2,125	R. W. Doyne . . . . .	1,885
E. J. Morley . . . . .	2,035	E. R. Dimsey . . . . .	1,815
H. W. Macnama . . . .	2,025	J. R. McDonnell . . .	1,795
L. H. Whelan . . . . .	2,010	D. W. Donovan . . . .	1,780
P. W. Bassett-Smith . .	2,000	H. Meikle . . . . .	1,725
H. Canton . . . . .	1,690 marks.		

## THE DISCOVERY OF DEAD BODIES OF INFANTS IN BERMONDSEY.

THE discovery of a number of dead bodies of infants upon the premises of a local undertaker has caused, naturally, great excitement and disgust. The Southwark police-officers appear to have received information which led them to make an investigation of the premises of an undertaker named Camden, in Long-lane, Bermondsey, and under a recess in the staircase they found a large shell, from which a most offensive smell proceeded. On opening it they found three coffins, which contained the bodies of eleven infants in a very advanced state of decomposition. On an examination by Dr. Alexander, the divisional surgeon, he expressed the opinion that they were the bodies of stillborn infants, and further, that they must have been secreted in the coffins for several months. It is stated that a very small charge is made for the interment of such bodies, and that, unless the system of keeping them until some number had accumulated was adopted, the fee charged would be totally inadequate. Whether this be true or not, it is perfectly evident that such an outrage to public decency cannot be justified on any grounds conceivable. Mr. Payne (the Coroner), who held an inquiry upon two of the bodies, remarked that it was a horrible thing that such a disgusting occurrence should have taken place, and that the lives of people should have been endangered by a man who took money to bury the bodies and failed to do so. He understood that the police magistrate had no jurisdiction in the matter—a fact admitted by Mr. Slade at the Southwark Police-court, to whom an application on the subject had been made,—and if the sanitary authorities would not prosecute, he hoped an application would be made direct to the Home Secretary, so that some prosecution might be instituted against the undertaker; or perhaps he might be sued in the county court for the sums of money that had been paid to him. But, on the whole, the magistrate appeared not to know of any charge that could be brought with success against the man. Meanwhile, the undertaker has had to shut up his shop and keep out of the way, to escape the rough-and-ready justice which the lower orders were prepared to inflict upon him and his property. The eleven bodies of the infants were placed in the mortuary of St. George's Parish, Southwark, till a difficulty raised as to their interment could be got over. The St. Saviour's Union relieving officer undertook to pay the expense of the interment of the two bodies belonging to his district, and upon which Mr. Payne had held an inquest; but Mr. Payne's authority did not extend to Bermondsey, to which parish the parents of the other children belonged. However, in the end, the Bermondsey local authorities agreed to recoup the coroner's officer's expenses if he would obtain their burial at Ilford Cemetery; and Dr. Waterworth, the Medical Officer of Health for St. George's, and one of the sanitary inspectors of the Vestry, obtained an order for the removal of the bodies from St. George's mortuary. So, after much parade

of officialism and law, in the way of obstruction, the infant bodies have received decent burial, and an offensive and dangerous nuisance has been removed. But it is abundantly clear, from this and other scandalous difficulties of a like character lately, that some reform of the Burial Act is imperatively called for; and perhaps also some enactment for the registration of stillborn children.

## HOSPITAL ESTABLISHMENTS IN FRANCE.

THE *Gazette Hebdomadaire* states:—From a very recent inquiry instituted by the Assistance Publique, it results that there are 1563 hospital establishments, of which 364 are hospitals, 789 *hopitaux-hospices*, and 410 *hospices*, or, according to the population, one establishment for 24,000 inhabitants. The *personnel* charged with the service of these 1563 establishments consists of 28,676 persons, viz., 2787 physicians and surgeons, 3050 *employés*, 11,287 *religieuses*, and 11,553 servants. The 1563 establishments dispose of 164,955 beds, of which 71,192 are devoted to patients, 54,245 to the infirm, the aged, or the incurable, 10,150 to *enfants assistés*, and 23,450 to the *personnel* of the various institutions. In regard to what relates to the hospitals proper—that is, establishments in which accidental diseases are treated—there are admitted 360,000 persons per annum, and as a mean there remain under treatment 40,000 from one year to another. The proportion of persons treated in hospitals is 90 per 10,000 inhabitants.

## HABITUAL DRUNKARDS.

THE third report of the Inspector of Retreats under the Habitual Drunkards Act, 1879, has been issued as a Parliamentary paper. The report deals with the year 1882, during which Cannock Retreat was re-opened for the reception of such patients under a new licence; and more recently a licence has been granted by the St. Albans magistrates to another retreat, near Rickmansworth, for the reception of sixteen male patients.

## THE RICHMOND WATER-SUPPLY.

THE deputation of the inhabitants of Richmond, who waited upon the President of the Local Government Board, on Monday last, to represent the sufferings of Richmond from want of water, owing to the shortcomings—to say the least—of the Local Authority, met with a sympathetic and very sensible listener. Sir Charles Dilke remembered, it may be suspected, that there are two sides to every shield, and he possibly suspected that there might be a little exaggeration in the accounts given of the scarcity of the water-supply in Richmond. At any rate, he said he should be very happy to help the good people if he could, but that any real action that the Board could take would be too slow to meet the present emergency; and he offered them the advice and aid of Colonel Bolton, the Official Examiner of the Metropolitan Water-Supply. As a result of this, Colonel Bolton has visited Richmond on behalf of the Local Government Board, and made inquiries at the principal hotels and of various large consumers with reference to the water-supply. At one well-known hotel on the hill the proprietor stated that he always had plenty of water, and was in a position to start his fountain with a jet of water twenty-five feet in height at any moment. Colonel Bolton noticed that the drinking-fountains in the streets were flowing continuously, and, it is stated, came to the conclusion that the statements with regard to the great dearth of water in the town had been exaggerated, although he advised the Vestry to connect their service with the main of the Southwark and Vauxhall Company for use in case of emergency. After due consideration the chairman (Major



Bull), on behalf of the Vestry, ordered the work to be carried out. Several officials and a gang of men employed by the Southwark and Vauxhall Company set to work to unite the two mains, and on Tuesday night the public baths were supplied principally from the new source. The parish has been supplied with a daily service for the past ten days from the old sources of supply, owing, it is stated, to the fact that there were good spring tides at the beginning of last week, and a consequent increase in the quantity of water in the well at Petersham Meadows, adjoining the river.

#### THE HEALTH OF FOREIGN AND COLONIAL CITIES FOR THE JUNE QUARTER OF 1883.

A SUMMARY of the weekly returns furnished to the Registrar-General by various local authorities abroad shows that the average annual death-rate during the quarter ended June last in twenty-seven colonial and foreign cities, having an aggregate population of nearly fourteen millions, was equal to 29.1 per 1000. The average rate in the twenty-one European cities was 30.5 per 1000, against 21.5 in twenty-eight of the largest English towns. The lowest death-rates among the twenty-seven colonial and foreign cities were 16.3 in Christiania, 20.7 in Baltimore, 21.9 in Philadelphia, and 22.1 in Brooklyn; the rates ranged upwards in the other towns to 35.1 in Munich, 36.3 in Buda-Pesth, 36.4 in St. Petersburg, and 42.4 in Prague. The fatal cases of small-pox in Paris, which had been 101 and 154 in the two preceding quarters, further rose to 181 in the second quarter of the present year; the deaths from measles also showed a considerable further increase upon the numbers returned in second quarters. The deaths referred to typhoid fever in Paris, which had been 1571 and 582 in the two previous quarters, further fell to 523 last quarter, which were, however, equal to an annual rate of 2.94 per 1000, against but 0.14 from the same disease in London. The fatal cases of small-pox in St. Petersburg, which in the two preceding quarters had been 279 and 232, further declined to 129. In Bombay, Madras, and Rotterdam small-pox was severely epidemic during the quarter. Diphtheria caused 486 deaths in Berlin, 306 in St. Petersburg, 253 in New York, and 218 in Philadelphia. Measles showed increased prevalence in Berlin, St. Petersburg, Munich, Prague, and New York; and typhoid fever was also fatally prevalent in St. Petersburg, Buda-Pesth, New York, and Philadelphia.

#### CHARGE AGAINST A MEDICAL OFFICER.

At a meeting of the Greenwich Board of Guardians last week, the Dispensary Committee reported that Dr. Kavanagh (the public vaccinator for Deptford) had brought a charge against Mr. Fisher, one of the district medical officers, of falsely certifying that several children were suffering from syphilis, and that the syphilitic disease was communicated through vaccination. Dr. Kavanagh further stated that the children in question (four in number) had been vaccinated along with seventeen others on July 23, and that all the latter had presented arms of a normal character at the end of a week. Of the other four, one, specified by Mr. Fisher as suffering from syphilitic eczema, had a general eruption all over the body, which was completely cured after four days' treatment. Dr. Kavanagh had laid the cases before the Local Government Board, and had received from their inspector a letter, in which he said, "I think his (the district medical officer, Mr. Fisher) conduct truly scandalous, and he is, in my opinion, on that ground alone, totally unfit to hold his present office, not for his siding with anti-vaccinators, which he has a perfect right to do if he likes, but for his statement respecting the infant whose disease he entered as syphilis. This was either

knowingly false, or believed to be true. If the latter, his ignorance shows him to be quite unfit for his post; if the former, dismissal is not enough punishment." Supposing that the statements made by Dr. Kavanagh are facts, it would be difficult to exaggerate the gravity of the offence committed by Mr. Fisher; and, in such circumstances, the condemnation of the Local Government Board inspector is not worded one whit too strongly.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-third week of 1883, terminating August 15, was 977 (528 males and 449 females), and of these there were from typhoid fever 38, small-pox 3, measles 21, scarlatina 2, pertussis 19, diphtheria and croup 23, dysentery 2, erysipelas 4, and puerperal infections 5. There were also 49 deaths from tubercular and acute meningitis, 161 from phthisis, 17 from acute bronchitis, 54 from pneumonia, 158 from infantile athrepsia (59 of the infants having been wholly or partially suckled), and 41 violent deaths (36 males and 5 females). The deaths are still less than in the preceding week, and call for no remark, except that those from athrepsia have increased unduly, viz., from 136 to 158. The births for the week amounted to 1140, viz., 575 males (435 legitimate and 140 illegitimate) and 565 females (445 legitimate and 120 illegitimate): 63 infants were either born dead or died within twenty-four hours, viz., 35 males (27 legitimate and 8 illegitimate) and 33 females (21 legitimate and 12 illegitimate).

#### THE ACTION OF SALINE CATHARTICS.

DR. MATTHEW HAY concludes the report of his investigation into the action of saline cathartics as follows (*Journal of Anatomy and Physiology*, July, 1883):—"They all tolerably closely agree in the ultimate effect they have on the alimentary canal and the body generally. They cause no irritation or inflammation of the canal; stimulate but in the smallest degree the secretion of the more important digestive juices, as the gastric, the pancreatic, and the biliary; have, under ordinary circumstances, little action on the blood; and mainly act by increasing the intestinal secretion, and by hindering the absorption of the intestinal fluid. Their purgative action is therefore extremely simple. They sweep out the contents of the alimentary canal with the least possible disturbance of the digestive system and of the other systems of the organism. Few other purgatives, if any, have so simple an action. The value, therefore, which has long been assigned to them in the treatment of the occasional disturbances of digestion, to which almost everyone is at times subject, and where the indication seems to be to empty the canal '*cito, tuto, et jucunde*,' is quite justified by the results of this investigation."

#### THE COOMBE LYING-IN HOSPITAL, DUBLIN.

THE seven-years' period of office of the Master of this benevolent institution, Dr. George Hugh Kidd, expired on July 22, and in the ordinary course an election to the vacant post should have taken place before that date in order to avoid an interregnum. But the guardians and directors have resolved to take a step, the propriety of which is certainly a matter of question. The charter of the Hospital distinctly provides that the period of office of each Master shall not exceed seven years, and that, consequently, no one person, however deserving—and this Dr. Kidd undoubtedly is,—shall be capable of being elected Master of the Hospital who has been Master for seven years, either successively, or at different times amounting in the whole to seven years. Notwithstanding this strict provision





in the charter, the guardians and directors have applied to the Lord Lieutenant by memorial for a Queen's Letter to permit them to reappoint Dr. Kidd for a period of three years. This proceeding is likely to cause a good deal of comment and dissatisfaction, more particularly as there is no lack of eligible candidates for the Mastership among the ex-Assistant Masters of the Hospital, to whom, in accordance with the terms of the charter, a preference must be given in all elections for the Mastership. It does not appear that there is any precedent in the case of either the Rotunda Lying-in Hospital or the Coombe for the course which the authorities of the latter institution have on the present occasion seen fit to pursue.

#### INDIAN MEDICAL SERVICE.

APPENDED is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 13, 1883, and following days. Twenty-one candidates competed for five appointments. All were reported qualified:—

	Marks.		Marks.
J. J. Pratt	: . . . 2,475	C. I. Sarkies	: . . . 2,341
R. Shore	: . . . 2,410	W. B. Bannerman	: . . . 2,230
H. Thomson	: . . . . . 2,015 marks.		

#### HEALTH OF TOWNS IN SCOTLAND.

THE death-rate in the eight principal towns of Scotland during the week ending Saturday, August 25, 1883, was 21.1 per 1000 of estimated population. This rate is 1.1 above that for the corresponding week of last year, and 0.9 above that for the previous week of the present year. The lowest mortality was recorded in Perth, viz., 11.9 per 1000; and the highest in Paisley, viz., 30.7 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per 1000, or 0.4 below the rate for the previous week. Diarrhoea, scarlet fever, and whooping-cough were the most prevalent of the epidemic diseases, the mortality therefrom being most marked in Glasgow, where 6 deaths from diphtheria were also registered. Acute diseases of the chest caused 67 deaths, or 5 less than in the previous week. The mean temperature was 58.4°, being 1.4° above that of the week immediately preceding, and 2.8° above that of the corresponding week of 1882.

#### A STANDARD FOR PORTER.

At the late Co. Antrim Assizes, Mr. James Dempsey, brewer, Belfast, had an action for libel against Dr. C. A. Cameron, of Dublin, public analyst for the county of Down. The action arose out of an analysis of porter which the defendant had made so far back as June, 1881. This porter was sent by the constable acting as food inspector at Holywood, co. Down, to Dr. Cameron, who reported that it was a debased article. The vendor was fined £5 by the magistrates at petty sessions. Mr. Dempsey, who brewed the porter, was examined for the defence, and induced the defendant to appeal to quarter sessions, and to require Dr. Cameron's attendance. After some adjournments the case was heard in January, 1882, at Downpatrick, and the County Court Judge confirmed the conviction. Dr. Cameron reported the case to the Grand Jury in March, 1882, and again in 1883. He incidentally referred to it by stating that the samples of porter analysed during the year were superior "to the debased article which formed the subject of a trial at Downpatrick," etc. For these reports and for describing the porter as a debased article the action was brought. For the plaintiff it was contended that the porter was a fair article. An excise officer and two brewers' assistants supported the plaintiff's evidence, which

admitted the defendant's analysis, but not his inference therefrom. Dr. Cameron proved that he condemned the porter because it contained only 3.85 per cent. of extract, 5 per cent. of alcohol by volume, or 4 per cent. by weight, and that it was made largely from molasses or some kind of cane sugar. Dr. Tichborne coincided with the defendant's opinion, and said that porter should contain at least 5 per cent. of extract, and 6 per cent. of alcohol. Dr. Cameron swore that from his twenty years' experience as analyst—and he was public analyst for twenty-three counties—he could say that Irish porter contained from 6 to 9 per cent. of extract, and from 5 to 10 per cent. of alcohol by volume. He would, however, not certify that porter was adulterated unless it contained less than 4 per cent. of extract, and less than 4½ per cent. of alcohol by weight. He calculated that the porter in question was brewed from a wort of 1045 gravity. The jury found for the defendant, with costs. Three courts have now established that porter should contain at least 4 per cent. of extract, and 4 per cent. of alcohol.

#### CONVEYANCE OF MEDICINES BY RURAL LETTER-CARRIERS.

ON Thursday last week, in reply to a question from Mr. Waddy, the Postmaster-General stated that so many applications had reached him from different parts of the country in favour of rural letter-carriers being allowed to carry light packets of medicines, as they had been in the habit of doing before the introduction of the Parcels Post, that he had gladly been able to decide to grant permission for the continuance of the practice; and instructions to that effect would be given immediately. Mr. Fawcett has been very considerate in this matter, which is one of much importance in country districts. It is obvious that the boon thus granted may be abused; but, should this happen, punishment will follow, and rightly, though, unhappily, the guilty and the innocent would alike suffer. Mr. Fawcett gave clear warning on this point. He should regret extremely, he said, if the permission given should be in any way abused by sending as packets of medicine articles which are not medicine, because such proceedings would make it necessary to withdraw the permission.

#### THE LICENSING OF PLUMBERS BY MUNICIPALITIES.

THE Town Council of Bradford have just adopted by-laws for securing the laying, fixing, and fitting of pipes for the distribution and supply of water and gas at houses and other buildings and places within the borough in a satisfactory and efficient manner. In addition to laying down regulations as to the method of doing work of this nature, the by-laws provide that no person shall act as a plumber within the borough who is not duly licensed by the Corporation for the purpose. A strong representation was made against a system of licensing any body of tradesmen, and it was pointed out that licences might as well be required for masons, joiners, and slaters; but the by-laws were carried by a large majority.

#### DISEASED MEAT.

IN one of the principal thoroughfares in Glasgow, a butcher, named Graham, has been fined the modified penalty of £5 for having sold and had exposed in his shop for sale a quantity of meat which was unsound and unfit for human food. Evidence disclosed that sulphate of lime is used in the trade "to make meat beautiful and pleasant to the eye." It was further stated by Dr. Russell that the preparation was known in the trade as "Madame Rachel." The complainant stated that the smell from the "sausages" (the form in



which the meat was sold) when placed on the fire was so disgusting and disagreeable that it was impossible to stay in the house. The defendant gave as excuse that the blame rested on a strange shopman, who used too much of the "seasoning," at the same time attempting to screen his man by stating that the weather was very much against keeping such kinds of meat fresh.

#### TIDY AND WIGNER ON MAMMARY FERMENT(?).

WE have on several occasions referred to the use of "oleo-margarine" in the manufacture of butterine, and in the production of a "double" cheese from milk from which the butter fats have been previously withdrawn. In regard to the latter, we have been inclined to speak favourably of the manufacture as turning out really a more nutritious food than would have been the case had the addition of the fat not been made. We have, when discussing butterine from the analytical standpoint, pointed out that by some means the manufacturers had succeeded in preventing the crystalline structure, which was formerly considered sufficient of itself to distinguish the factitious from the genuine butter, and that, in fact, the only positive indication of the presence of foreign fats was now to be found in the determination of the melting-point. Messrs. Tidy and Wigner have recently reported to the Society of Public Analysts the results of some experiments on the action of the mammary tissue of the cow on mutton fat, which tend to show that some ferment therein contained possesses the power of assimilating these fats more or less to those of butter, by converting the insoluble into soluble fatty acids; and doubtless milk itself, containing, as it does, epithelium and other derivatives from the mammary ducts, contains also some of the ferment in question. Oleo-margarine contains more olein and less stearin than the fat from which it is made, the higher melting-point of the stearin permitting of its separation under moderate pressure and heat; but it would seem that, whether the inventor of butterine, M. Mège, was quite conscious of what he was doing, or not, the incorporation of a certain quantity of milk with the oleo-margarine brings about those changes in the fatty acids which Tidy and Wigner obtained by means of mammary tissue or its alcoholic extract: and which very probably take place in the gland as a physiological process in the natural secretion of milk, analogous to the conversion in the stomach of albumen into peptons.

THE distinction of the Royal Red Cross, conferred by Her Majesty, was received on Friday last week at Chatham, for presentation to Miss J. King, Nursing Sister at Fort Pitt Hospital, in recognition of the special devotion and competency displayed by that lady, and her unwearied attention in nursing the sick and wounded during the Egyptian Campaign.

AT the recent examination at the Apothecaries' Hall, London, for the prizes in Materia Medica and Pharmaceutical Chemistry, the successful candidates were: (1) Arthur Pearson Luff, student of St. Mary's Hospital—gold medal; (2) Augustus Frederick Dimmock, student of King's College, London—silver medal and a book.

AT a meeting of the Aberdeen University Court, on August 28, Dr. Matthew Hay, Assistant to the Professor of Materia Medica in the University of Edinburgh, was appointed to the Chair of Medical Jurisprudence, Aberdeen, in the place of Dr. Ogston, resigned.

THE next session of the Medical Society of London will open on October 29, with a paper by Professor Lister.

THE opening address at the London Hospital Medical College will be delivered by Professor Huxley, F.R.S., on Tuesday, October 9, at 8 p.m., instead of October 1, as previously announced. A *conversazione* will be held afterwards, to which all past and present students are invited.

MR. ANDREW CARNEGIE, of New York, who has been munificent in his gifts to Dunfermline, his native city, has subscribed £1000 to the fund for completing the new buildings of the University of Edinburgh.

AN "Old English Fayre" was held in Harwich last month, for the purpose of providing funds for the erection of a moderately large cottage hospital in connexion with that town. The "Fayre," which was opened by the Countess of Dalkeith, proved very successful, the receipts having exceeded £1200.

A FATAL football accident occurred at Arbroath on the 25th ult. A man named James Gordon, while playing in a match between the Arbroath and the South-Western of Glasgow Clubs, received, accidentally, a severe injury towards the end of the contest, and died on the following Tuesday. The cause of death was rupture of the liver.

ACCORDING to the last official report of the Metropolitan Board of Works, the open spaces, parks, commons, etc., which are under the Board's management and control comprise a total of 1769½ acres, which have been acquired for the use of the public in perpetuity.

MR. W. F. ROCK promised some time ago £1000 towards the Canon Millar Memorial Hospital, if £5000 were raised in a similar manner. Mrs. Payne (sister of Mr. Rock), Mr. Evelyn, Mrs. Penn, and Messrs. Penn and Co. have each promised £1000.

MRS. LOVEGROVE, of Park-street, Grosvenor-square, has sent a cheque for £500 to the hospital at Weston-super-Mare, in which place she has a marine residence.

EARLY TUBERCULAR DISEASE IN INFANTS.—Dr. Lewis Smith, in a paper read at the New York Pathological Society, observed that the tubercles, being widely disseminated in the system of tuberculous children, do not ordinarily give rise to any prominent local symptoms till they produce inflammation around them. Hence the difficulty of making a positive diagnosis at an early stage, the presence of tubercles being inferred from the general condition—wasting, loss of appetite and strength, and the cough—it not being possible to state positively, as in the adult, that tuberculosis is present until this is pretty well advanced. "Whenever I am called to a young child with a chronic cough and wasting, I do not wait for a more accurate diagnosis; but, if there be no diarrhoea to contraindicate it, prescribe cod-liver oil with the hypophosphites, frequently adding the syrup of the iodide of iron, since the strumous cachexia is apt to be present, with possibly caseous substance in some parts. (Dr. Smith regards caseous foci resulting from unresolved inflammatory products as the commonest source of tubercle in children.) Such a case requires the utmost attention to the hygienic management—pure air, nutritious and easily digested diet, into which milk enters largely, and the juice of meats or meat-broths prepared at a temperature of 100° so as not to coagulate the albumen. A favourite prescription in two of the asylums of this city for infants with chronic cough and wasting, whether or not tuberculosis be diagnosed, is the following, to be taken between the doses of cod-liver oil:—℞. Ammon. carb. ferri et ammon. cit. āā gr. xxiv., syrupi ʒiij.; a teaspoonful for a child a year old, every two or three hours.—*New York Med. Record*, May 12.



## MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, AUGUST 23.

MR. LABOUCHERE gave notice that next session he would move for a Select Committee to inquire into the causes which have led to the serious diminution of water in the Thames between Teddington Lock and London, and into the best method of remedying this evil.

*An Alleged Vaccination Disaster.*—In reply to a question from Mr. Hopwood, Mr. G. Russell said: The child mentioned, Emily Agnes Henning, was vaccinated on July 25, by Mr. Niall, who is not a public vaccinator, and was not attacked with symptoms of blood-poisoning within three days after vaccination. The vaccination ran the normal course, and the result on the eighth day was regarded as satisfactory by Mr. Niall. One of the vesicles, however, became broken by being rubbed by a piece of muslin, and following on this a bluish of the nature of erysipelas appeared on the arm. This was on the *ninth* day after vaccination. The erysipelas spread, and the child died three weeks after vaccination. It appears that death was due to absorption of some septic matter by the surface of the broken vesicle, and not from the vaccination. In these circumstances the Local Government Board consider that the statements in the certificate of death, that the primary cause was erysipelas, and the secondary cause convulsions, are correct.

*Workmen's Dwellings.*—In reply to Mr. Broadhurst, Sir W. Harcourt said he should be glad to give every attention to any scheme placed before him for providing better accommodation for working people in the great towns. Mr. Broadhurst said he would call attention to the subject next Session.

SATURDAY, AUGUST 25.

The Royal Assent was given, by commission, to the Trial of Lunatics Act and the Cholera Hospitals (Ireland) Act, among other measures; and Parliament was prorogued till November 12.

## FROM ABROAD.

“BEFORE OR AFTER MEALS?”

UNDER this title a very useful article appeared in the number of the *Philadelphia Med. News* for July 7, in which it is stated that it is a question to which the doctor has not always his answer ready. One general principle will embrace many cases—viz., that an organ in a state of irritation requires to be shielded.

“Medicines that are irritating should be given after meals when the stomach is full, unless the chemical changes which must then occur will destroy their qualities. Mineral remedies, as the salts of copper, zinc, iron, and arsenic, should be given after meals, unless local conditions require their administration in small quantity before meals. Of the latter, arsenic affords a capital illustration. Large doses, acting as an irritant, should follow food, which protects the mucous membrane; but small doses, intended to act upon the stomach terminals of the vagi, must be given when the organ is empty. Chemical reasons, also, influence the question of the time for administering mineral irritants. Thus, oxide and nitrate of silver, intended for local action, should appear in the stomach during its inactivity, lest, at other times, chemical reactions destroy the special attributes for which these remedies are prescribed. Iodine and the iodides further illustrate this point. Given on an empty stomach, they promptly diffuse into the blood; but if digestion is going on, the acids and starch form products of inferior activity, and thus the purpose which they were intended to subserve is defeated. Substances prescribed to have a local action on the mucous membrane, or for prompt diffusion unaltered, are preferably given before meals. It should not be forgotten that the liver is a great sieve, which retains in its structure for a time, and then excretes, many noxious substances; hence it is, in part, that the subcutaneous administration of many remedies is more effective than the stomachal. The condition of the stomach-veins after meals is such as to lessen the activity of diffusion of poisons, and hinder their passage through the liver. It follows that active medicines, in doses near the danger line, are more safely administered after meals.

“Probably the most important questions connected with the period of administration of remedies are those affecting the acidity and alkalinity of the blood and urine. Here we have to do with chemical facts that afford small opportunity for differences of opinion; and yet how diverse the views of practitioners—how much more diverse the practice! They must be considered separately. First, as to acids. When prescribed with the view to check the excessive formation of the acids of the gastric juice, when should they be administered? A moment's consideration given to the laws of osmosis will decide this question. As the blood is a compound fluid with an alkaline reaction, but which furnishes to the gastric glands the materials for an acid secretion, it is obvious that an acid taken into the stomach before digestion begins will determine, by the laws of osmosis, a flow through the intervening membrane of the alkaline constituents. Hence, when there is an excess in the formation of the acid constituent of the gastric juice, an acid may be given before meals to check the osmosis stomachward of the acid-forming materials. When the alkaline condition of the blood and urine is alike in excess, when shall acids be administered? Obviously, in the interval between the digestive acts; for then, the stomach being empty and the veins flaccid, the most favourable conditions for the diffusion of acid into the blood exist. An alkaline fluid on one side of the animal membrane, and an acid fluid (the medicament) on the other, are the conditions most favourable to osmosis. Then the acid diffusing into the blood, and out again from the kidneys, changes the reactions of these fluids from alkaline to acid. Alkalies require different handling. When an excess of acid exists, as during the progress of digestion, how may alkalies be used? It is a matter of quite common observation that an alkali, as the bicarbonate of soda, will quickly relieve the excess of acid, by neutralising it; but it is equally true, although not so clearly recognised, that the relief thus purchased is at the expense of a continually increasing recurrence of the same malady. It may then be affirmed, as a rule of practice, that the habitual use of alkalies to relieve an excess of acid is unwise and hurtful. Alkalies are used to increase the formation of acid, when the gastric glands perform this duty inadequately. An alkaline given before meals diverts to the gastric glands, by the laws of osmosis, those materials in the blood out of which the acid constituent of the gastric juice is elaborated. There are two periods when alkalies may be used to lessen the acidity of the urine—just before meals, when the acid-forming materials in the blood diffuse into the stomach-glands, and the alkaline medicament diffuses into the blood and outwards into the urine; and after digestion is completed, when the alkalies diffuse directly into the blood, without interference from the contents of the stomach.

“The effect of the remedy on the stomachal digestion must also be taken into consideration in deciding upon the time of its administration. For example, an alkali taken during the time when the reaction of the stomach-juices should be strongly acid, must necessarily hinder, if not arrest, the digestive process for the time being. The metallic salts—notably corrosive sublimate,—alcohol, tannin, and some other agents, impair or destroy the ferment, or digestive power, of pepsin. Whenever, then, it is necessary to preserve the integrity of the stomachal digestion, the administration of the offending substance must precede or follow the meals at a considerable interval. Again, there are remedies which should be given with the meals, such as food adjuncts, and medicines required in the process of tissue-construction. Wine that is intended to act as a food is most beneficial when taken, slowly, during the course of the meal. The objection above stated as regards the ill-effect of alcohol on pepsin is not applicable here, except to the stronger spirituous wines in large quantity, for the ordinary medicinal wines do not have sufficient alcoholic strength to injure this ferment. Iron, phosphates, cod-liver oil, malt, and similar agents should, as a rule, go with food through the digestive process, and with the products of digestion enter the blood.

“It results from the foregoing observations that the relation of medicine-giving to food-taking is not merely a question of taste, convenience, or expediency. There are rules capable of exact application, and hence the administration of any medicament may be accurately adjusted to the requirements of the function of digestion.”



## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### MR. SPEAR ON FEVER AND DIPHTHERIA IN THE DARTFORD SUB-DISTRICT.

At the commencement of the present year Mr. John Spear was deputed by the Local Government Board to report upon a sustained prevalence of enteric fever and of diphtheria in the registration sub-district of Dartford. At the outset of his inquiry he found that this district is seldom entirely free from enteric fever, but in the years 1879 and 1880 there was comparative absence. In the latter year no deaths were recorded from it, and only some half-dozen cases came under the notice of the Medical Officer of Health. In the beginning of 1881, however, a series of cases occurred, and during that year there were sixty-five attacks with seven deaths; whilst during the first nine months of 1882 there were thirty-eight cases, of which seven proved fatal. The first case of the present prevalence occurred, it is believed, in November, 1880; the sufferer, a boy employed at the paper-mills, occupied with his family one of a block of six small cottages, having common yard-space, privy accommodation, and water-supply. The yard-space was confined, and the surface most dilapidated; the privies were of the deep cesspit class, dilapidated, extremely foul, and situated within a few feet of the back doors and windows of the dwellings; whilst the water-supply was derived, at the time of the occurrence, from a shallow well sunk close to, and receiving soakage from, privies and drains—so that, as the Medical Officer of Health described, “the water from the well was flavoured with the carbolic acid used to disinfect the excrement in the privies.” In all, sixteen cases of well-marked enteric fever occurred in this block of six cottages, and two of the sufferers died. Up to this point the evidence as to the causation of fever in Dartford was, Mr. Spear found, of the most commonplace description, but pointing very clearly to excremental pollution, by ordinary means, of soil and atmosphere, and especially of local wells. Further inquiry elicited the fact that in 1880-81 a system of sewers was being constructed throughout the town, and in order to avoid flooding of the sewer trenches, considerable pumping operations had to be resorted to. The conditions, in fact, were those which have before been found to be associated with outbreaks of enteric fever, viz., a rapid falling of ground-water previously standing at a high level in a sewage-polluted soil. “Herein,” says Mr. Spear, “lies the only satisfactory explanation discoverable of certain of the more marked phenomena of the recent fever-prevalence in Dartford; and if the explanation be accepted, the further question arises, whether the connexion between the two occurrences—the fall of the subsoil-water and the outbreak of fever—be that direct one which Professor Pettenkofer believes in, or whether it be not simply referable to the special facilities afforded by the sinking of the ground-water for the conveyance of impurities from the surrounding soil into surface wells.” An improved system of sewerage and water-supply has now been provided, which will, the report observes, greatly conduce to the health of the locality, although it is to be regretted that these works were not undertaken before. With regard to the prevalence of diphtheria in the Rural District, it is necessary, the report says, that the sanitary history of the locality during the last few years should be studied, in order to understand the recurring outbreaks of the disease, and the summary of an inquiry held by Dr. Thorne Thorne, in 1879, on diphtheria in Swanscombe parish is quoted, to show how defective were all the sanitary arrangements of the district at that time. So, in fact, they continue to the present day; no efficient action has been taken for the removal of old nuisances and conditions dangerous to health. Mr. Spear visited Swanscombe, and, after a diligent search, found only a well or two closed, and a drain ventilating pipe or two put up. Dr. Thorne in his report had signalled one particular house in the Swanscombe parish that had been invaded by diphtheria, pointing to it as the sort of house likely to be so invaded, and as showing the very defects it was the duty of a sanitary authority to remedy. Mr. Spear visited this house, and found everything in exactly the same state as when inspected by Dr. Thorne four years previously. In the face of such want of action on the part

of the authorities it is not surprising to learn from the present report that the outbreak of diphtheria of 1881-82 bears in many respects a close resemblance to that of 1879 investigated by Dr. Thorne, and is perhaps to be looked upon as little more than a continuation of the earlier occurrences. The disease made its appearance at a spot previously infected, and appears then to have spread under circumstances very similar to those of the earlier visitation. There are, as usual, recommendations appended to this report, but it would seem, from previous experiences, that the chance of their being carried out is but small.

### MR. POWER ON DIPHTHERIA IN THE HENDON SANITARY DISTRICT.

On account of a sudden outbreak of diphtheria at Hendon, which occurred in January of the present year, Mr. W. H. Power was deputed to institute an inquiry on behalf of the Local Government Board. On the 5th of the month fourteen cases in six houses were simultaneously brought to the notice of Dr. Cameron, the Medical Officer of Health for the District (one case being in his own house), and, as a result of the investigation he at once made, the milk-supply was suspected. No fault was found with the milk examined at the dairy implicated, but the pond-water used for farm and dairy purposes was found to be fouled to a large extent by sewage matter, and to contain in abundance animalculæ visible to the naked eye, and the use of this was ordered to be discontinued. It was at this point that Mr. Power commenced his inquiry, and it may be said that he at once endorsed the view taken by Dr. Cameron. The invaded houses were some of the best in the locality, and their sanitary condition was irreproachable, but patient inquiry elicited the fact that in the invaded households it was the large consumers of milk who were attacked, and that in certain families, where the milk was habitually boiled before use, the children wholly escaped illness. Singular confirmation of the milk theory was obtained in the course of the investigation: it was ascertained that the implicated dairy, in addition to supplying families in Hendon with milk, had also a limited number of customers in the adjoining district of Finchley, and it was argued that if diphtheria was to be traced to this cause in Hendon, it should also be found to have affected families in the latter place. To test this, therefore, inquiry was made of Dr. Turle, Health Officer of Finchley, and of certain private medical men in the place, with the result of learning that the Finchley customers of this particular dairy had not been exempt. Altogether nearly a dozen cases in four families had been treated for sore-throat, and although only one of the cases was defined as diphtheria, several had been regarded as diphtheritic, and all had been of sufficient gravity to come under medical treatment. Further, it appeared that these Finchley cases were separated into two groups, one occurring at the end of November or beginning of December, coincidently with the earlier attacks in Hendon associated with the particular milk, though not then traced to it, and the second in January, coincidently with the notable outbreak of diphtheria in Hendon which formed the subject of the present inquiry. Thus not only was there in the Finchley experience corroboration of the already inferred relation between the particular milk service and diphtheria, but there was also strong suggestion that this milk had, at two distinct periods separated by an interval of several weeks, possessed the faculty alike in Hendon and Finchley of bringing about, in persons consuming it, throat-illness of a diphtheritic sort. Mr. Power in his report next proceeds to discuss the method in which the milk acquired the infective property, and offers some suggestions thereon which the limits of the present notice will not permit us to append. In bringing his report to a conclusion, however, he considers it necessary to make a few remarks upon the Hendon sewage system. This, he says, is confessedly fragmentary, insufficient, and inefficient. In addition, it is by many residents believed to be dangerous to health, and much of the occasional diphtheria that has continued to arise in the district is locally freely ascribed to defects of the sewerage. Upon this point Mr. Power observes, that, given a sewer origin of diphtheria, the circumstances of sewerage in Hendon are likely to foster it, and that, for this and other reasons, no time should be lost by the Sanitary Authority in adopting and carrying out some such comprehensive scheme of sewerage and sewage disposal as that already prepared by the Authority's surveyor.



## MR. POWER ON DIPHTHERIA AT PIRBRIGHT, NEAR GUILDFORD.

On November 27 last the Guildford Rural Sanitary Authority applied to the Local Government Board, through its Health Officer, Mr. Joseph Smith, for advice respecting diphtheria prevalence in Pirbright, which it was believed was in some measure due to the operations of the National School there. Mr. Smith stated that since May, 1882, this school had on several separate occasions been closed, and each time for several weeks, on account of diphtheria amongst the children; and that diphtheria in the parish having undergone diminution or cessation during each interval of school closure, re-appeared, and mainly amongst school children, each time that the school re-commenced operations. In consequence, Mr. W. H. Power was directed to inquire into the circumstances, and in the beginning of this year he carried out a most minute investigation. The parish of Pirbright is situated about five miles from the town of Guildford, and its sanitary condition is above the average: few dwellings are overcrowded, and almost without exception they have garden ground or other space about them. The most searching inquiry failed to show either in the physical or sanitary circumstances of Pirbright any ready explanation of diphtheria prevalence. For instance, from the wide dispersion of dwellings, households had had, for the most part, but little intercommunication, while as regards other sanitary details, they were commonly exceptionally separate one from another. Nevertheless, Mr. Power quickly learnt that, in addition to definite diphtheria, there had been in the parish a large prevalence of sore-throat, much of which had not come under medical observation, and that frequently children who had had what their parents regarded as trivial sore-throat, suffered later on from paralyses of the sort that are apt to follow diphtheria. This information was only acquired by means of a house-to-house inquiry; in the course of which it was ascertained that the first cases of diphtheria in Pirbright dated back to the beginning of 1882, but could not be satisfactorily accounted for, and that the principal victims were children between the ages of three and twelve. So far, it must be admitted, the facts appeared to press hardly upon the school, since no doubt could be entertained that the condition of school attendance had played an important part in the spread of illness. But the school-house on examination was found to be a modern building, in the erection of which unusual forethought had apparently been brought to bear; its sanitary condition, in every respect, being superior to that of buildings in other parts of the parish. It has, moreover, to be noted that Dawney Hill, the locality in which it is situated, had suffered from throat-illness and diphtheria to a greater extent and for a longer time than other localities, and that five-ninths of its first sufferers had not at the date of their seizure recently attended the school. Altogether, Mr. Power observes, the investigation has failed in giving definite reply to the main question as to the nature of the school influence. In concluding his report, Mr. Power says, in the investigation of the incidence of throat-illness upon families, both he and Mr. Smith were struck, and independently of one another, by the apparently different ability of the disease in different instances to extend itself in families invaded. Not infrequently severe and fatal diphtheria appeared well-nigh destitute of power to infect other children living along with it, while, on the other hand, cases of very trivial sore-throat or "cold," that were perhaps only heard of by close questioning, often preceded, and were seemingly responsible for, after occurrences of true and fatal diphtheria in the family. Especially was this apparent potency of mere sore-throat for breeding malignant diphtheria noticeable in regard of families comprising many young children.

**MOSS AS A DRESSING FOR WOUNDS.**—At the Berlin Surgical Congress, Dr. Hagedorn, of Magdeburg, reported that from a trial which he had made during six months of fresh-dried moss (*sphagnum*) as an application to all kinds of wounds, he was enabled to speak most highly in its favour. It possesses no disinfecting power, but is used in conjunction with weak sublimate solution. It is cheap, very absorbent, elastic, and convenient of application. In these respects he regards it as superior to turf, which has recently been much used, and was highly spoken of at the discussion which followed the paper.—*Central. f. Chirurgie*, No. 23, Beilage.

## A NEW FORM OF CLOSED SEWER.

It is well known that when the sewage of a town flows rapidly along an open channel, such as those conducting it to sewage farms, little or no smell is perceptible; and nearly the same result may be obtained by the free ventilation of a sewer, provided it be so well laid that no deposit of solid matter occurs in its course. Sewer-air, as distinguished from sewer-gas, is comparatively inodorous, and any stench indicates stagnation, deposit, and putrefaction of the solids of the sewage. As a matter of fact, few systems of sewers are so perfect as to be free from such deposit, and in too many instances the gases thus generated are extremely foul. It is no doubt better that even such should escape into the streets than that they should be forced into the houses, as will certainly happen if the house-drains are not disconnected, unless the sewers are freely ventilated. But, again, the light sewer-gases are so affected by temperature and atmospheric pressure that their dilution is not proportioned to the number of outlets provided, for under varying circumstances these will act as inlets or as outlets, and a concentrated sewer-gas may be discharged in large volumes in a narrow street or crowded thoroughfare, pure air entering the sewer where the escape of the foul was most to be desired.

To remedy these evils Mr. Harris Reeves has patented, and, as he believes, perfected, a scheme whereby the sewers are, as regards the air contained in them, divided into sections, the flow of the sewage continuing uninterruptedly; to each section there is attached an apparatus, worked by every fluctuation of the level of the sewage (even by the sudden discharge of the contents of a bath or slop-pail) in such a manner that, the section being accurately sealed, on the least rise of the sewage the gases pass out through a purifier, this being formed of a double circular midfeather trap, the inner section of which contains a disinfecting fluid, and the outer water, which, by washing the passing air, removes the odour of the disinfectant. When, on the other hand, the level of the sewage falls, air is admitted to the sewer through an automatic valve, responding to a pressure so slight that the seals of house-traps and purifiers are not broken. We have not seen this system in operation, and we must confess to a fear that the latter part might get out of order; but the action of the purifiers is vouched for by Professor Tuson and medical men who have inspected its working on the esplanade and streets in Shanklin, and who affirm that the sewer-gas, which, when it escaped in its natural condition, had a sickening odour, might be seen bubbling into the streets through the purifiers absolutely devoid of smell.

There are, however, serious objections to all such elaborate apparatus, and especially so in the case of large towns. The real remedy, we believe, is to be found in prevention rather than cure—in better construction, that is, of the sewers themselves; and that it is possible to prevent all deposit is proved by the example of Frankfort, where the engineers not having old sewers to patch, but beginning *de novo*, have been so successful that it has never been necessary to employ manual labour for the removal of silt or sludge.

**GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.**—Dr. Barlow, lately teacher of Physiology in Anderson's College, has been appointed to fill a similar position in the Glasgow Royal Infirmary School, in the vacancy made by the resignation of Dr. William James Fleming. As yet only one applicant has come forward for the vacancy in Anderson's College, namely, Dr. Joseph McGregor Robertson, who is at present Demonstrator of Physiology in the Glasgow University.

**FRACTURE OF THE LOWER END OF THE FIBULA.**—Of such frequent occurrence is this accident, that Prof. Trélat, of the Necker Hospital, lecturing upon it, observed that if it occurred as often in the other hospitals as it did in his own wards there would be in the twenty-one great surgical services of the Paris hospitals 1000 cases per annum; and if to these were added the number of cases observed and treated *en ville* the cases would easily amount to between 5000 and 6000.—*Gazette des Hop.*, May 24.



## REVIEWS AND NOTICES OF BOOKS.

*A System of Human Anatomy, including its Medical and Surgical Relations.* By HARRISON ALLEN, M.D., Professor of Physiology in the University of Pennsylvania. Section I. Histology. Section II. Bones and Joints. Section III. Muscles and Fasciæ. London: Henry Kimpton. 1882.

THE aim of the author has been, as he tells us in his introduction, to produce "a book which will be at once accurate in statement and concise in terms; which will be an acceptable expression of the present state of the science of anatomy; which will exclude nothing that can be made applicable to the medical art, and which will thus embrace all of surgical importance, while omitting nothing of value to clinical medicine." The object aimed at is one to which we can take no exception, and if we may judge of what the succeeding volumes will be like from the three that are before us, we think the author will be fairly entitled to claim that he has succeeded in attaining to the goal which he set before himself. It is not possible in the limited space at our command to do more than make a few general remarks on this work; anything like a detailed examination of it would require to be very lengthy. The first volume, or section, is on Histology, and is written by Dr. Shakespeare. The various tissues are described in order at some length, and the writer's views agree closely with those generally adopted in this country; and he has evidently taken care to make himself acquainted with the most recent work both here and on the Continent. This section is illustrated by twelve plates of steel engravings, and between fifty and sixty woodcuts. The latter are mostly taken from well-known authors, such as Carpenter, Ranvier, Frey, Stricker, Gray, etc. Of the former, several are after Ranvier or Klein. The plates do not, on the whole, come up to the standard of excellence attained by Klein and Noble Smith in their "Atlas of Histology"; but they are good, and in most instances exhibit the structures they were designed to show, with sufficient clearness for all practical purposes. Section II. is devoted to Bones and Joints. To show the author's method we give a brief sketch of the way in which he deals with the spine. He commences with some general remarks about the vertebral column, such as the degree of mobility between its different parts, the antero-posterior curvatures, the influence of weight in producing lateral curvature, the intervertebral foramina and spinous processes; then he speaks of the cervical vertebræ as a whole, and of the atlas axis and seventh cervical in detail; and then he considers the dorsal and lumbar vertebræ individually and collectively, and concludes with a table, taken from Holden, of the relative positions of the spines of the vertebræ to certain thoracic or abdominal viscera. One of the objects of the author is to make the study of anatomy more interesting to those engaged in the practice of their profession, and the paragraphs on the skull as a whole show how he has tried to fulfil this object, viz., by pointing out the functions of the canine teeth and malar and zygomatic processes in receiving and conducting shocks, and by considering the structure of the skull with especial reference to the effects of injury; the distribution of the spongy and compact tissue, and the disposition of the cranial bones and their sutures, being the points to which attention is chiefly directed. In the description of a bone, after its surfaces, borders, angles, and processes have had their share of attention, and the attachments of the muscles and grooves for vessels or nerves have been given, the author gives a paragraph on the structure of the bone: we quote one, taken quite at random, to show the care which has been bestowed on the work: "The scapula presents the strongest arrangement of the cancelli at the neck. The lines here radiate from the glenoid cavity toward the vertebral border. They are intersected by a number of laminae that are more or less concentric with the plane of the articular surface. When it is remembered that no weight is borne by the scapula, the arrangement of cancelli of the neck can have relations with forces exerted from below only, namely, from the humerus. The pressure of the head of the last-named bone against the lower half of the glenoid cavity is very great when the arm is elevated by the deltoid and the supra-spinatus muscles. The object of the cancelli in the scapular neck is to receive and distribute

through the scapula the results of such pressure. Spongy tissue is also seen in the coracoid process, acromion, and spine, and at the borders and inferior angle of the bone. The greater part of the supra- and infra-spinous fossæ are thin and diaphanous." This section contains no less than thirty plates, many of them being devoted to the ligaments, which are well represented. The bones have been drawn of a sufficient size to permit of attention being directed to all their points of interest. The attachments of the muscles are marked out by dotted lines, and in most instances the name of the muscle has been written on the bone at the site of its attachment. The names of the muscles, grooves, etc., are all printed in a legible type. But we think it is a pity the author has not adopted Holden's plan of marking the origins and insertions of muscles in different colours, as that is of decided advantage to the student. The third section treats of the Muscles and Fasciæ: the former are described in a systematic manner throughout, the order taken being as follows:—the origin of the muscle is given, then the general course and direction, including any additional slips it may receive; then its point or points of insertion, then its use, nervous supply, and lastly, any variations regarding it that are at all common; and where it seems necessary, its relationships to contiguous structures. In regard to the actions of the various muscles, we are pleased to notice how frequently the name of Duchenne is quoted; his method of determining the function of a muscle was at once the most simple and most reliable—viz., to put it into action by itself by passing an induced current through it. Dr. Allen has acted wisely in taking him as a guide in regard to the use of the muscles. The plates in this section are well executed, and would prove of much assistance to a student in reading up a part *after* he has already dissected it. The section concludes with a few remarks on displacements in fracture.

As we said at the outset of this notice, we consider that the instalment that is before us gives good promise that the whole work, when completed, will be of great value, and will take rank amongst the standard works on anatomy.

*Die Allgemeine Elektrisation des menschlichen Körpers (The General Electrification of the Human Body).* By SIGMUND THEODOR STEIN, M.D., Ph.D., Frankfurt-on-Main. Second Edition. Halle: W. Knapp. 1883. Pp. 136.

It is a common characteristic of almost all the methods of treatment which have been suggested for that most vague of all conditions, "nervous debility," that they should for a time fall into disrepute owing to their indiscriminate adoption by ignorant practitioners or designing charlatans. The work before us may be described as an attempt to bring back into respectability a branch of therapeutic art which, from the want of precise knowledge as to its mode of action, has long lain under the ban of "quackery." That this attempt has met with due recognition in Germany is evidenced by the speedy call for a second edition of the work in rather less than six months.

The author has dealt with his subject mainly from the practical side, showing in what cases good results may be hoped for, and in what manner such results may best be brought about.

In the present edition a very full account is given of the use of the bath as a means of applying faradism or galvanism either generally or locally. Premising that a large volume of water, as in an ordinary bath, offers greater resistance to an electric current than does the body reclining in it, the author simply passes his current from point to point through the (insulated) bath in whatever direction he desires it to travel through the body. The superiority of this method over that of Holst and of Seligmüller, in which the current was made to travel directly from the one pole held in the hand, to the other which was maintained in connexion with the metal bath itself, is fully discussed. Of the class of cases to which treatment by general electrification seems to have been found beneficial, it may be said that they are for the most part those disorders of the nervous system of which we are ignorant of the actual pathology. In the disorders of sensation, local and general, Dr. Stein has made several crucial experiments with Franklinic electricity, which deserve attention. He points out that just as a marked difference exists in the therapeutic action of the induced and the continuous current respectively, so also there





appear to be in static electricity qualities which cannot be discovered in either of the other two forms. That a condition of general electric stability is an essential condition for a healthy nervous system has been generally recognised since the days of Franklin, and finds illustration in the nervous disturbance so frequently induced during thunderstorms. The author recognises in many so-called hysterical cases a condition of unstable electrical equilibrium, which he looks to the employment of static electricity to relieve. The methods of treatment and the instruments used are very fully given and amply illustrated. Although it does not bring to light any new theory of importance, Dr. Stein's work may be classed as a useful link in the chain of honest work, which, it is hoped, will one day lead us to a correct understanding of the various disorders to which our complex nervous organisation is subject.

*Rheumatism, Gout, and some Allied Disorders.* By MAURICE LONGSTRETH, M.D., one of the Attending Physicians of the Pennsylvania Hospital; Lecturer on Pathological Anatomy at the Jefferson Medical College, Philadelphia. London: Sampson Low, Marston, Searle, and Rivington. 1883. 8vo, pp. 276.

AFTER a short chapter on the forms and varieties of rheumatism, Dr. Longstreth proceeds to consider its causes, and as he devotes a considerable amount of space to the question of heredity, and holds views on this subject different to those usually adopted in this country, we will quote some extracts to show the general line of thought he follows:—"The determination of the hereditary nature of a disease, especially the proof of the negative proposition, is a matter of great difficulty, but I think it will be found that a very much larger number of people whose parents suffered from it escape rheumatic affections than become rheumatic themselves, and I believe the converse of the proposition is also true." "On the question of the greater or less strength of the supposed hereditary tendency of rheumatism, the unsupported opinion of most writers is that there exists a strong hereditary tendency in its development." "Now I have no notes of my own with which to substantiate or disprove the correctness of the law of transmission. In my earlier notes of cases the matter was carefully inquired into, but later the inquiry has been abandoned, partly from my alteration of views in relation to the hereditary transmission of diseases in general, partly from it becoming obvious to me that, at least among hospital and out-patient cases, the replies were incorrect or confused, and partly because I found that inquiries as to hereditary diseases in general developed the fact that rheumatism in the parent was quite as often absent in the offspring as parent." "The histories of families, even many instances within my own knowledge, afford as numerous examples of the failure in transmission as the reverse, and it would be just as unfair to argue its non-transmissibility from this fact as to attempt to affirm its opposite character from similar facts." "The question needs to be studied by methods as yet unused for its decision. Hitherto its hereditary tendency has been concluded by collecting the answers of a set of people who, as a rule, are ignorant, unobserving, and perhaps prejudiced in favour of the one view of the question, and who, to increase the magnitude of their suffering, are capable of wilfully distorting facts. It is not surprising, therefore, that sufficient evidence has been collected to produce a strong impression in favour of the hereditary character of rheumatism. I believe there would be a very different showing produced, supposing that the statistical method of proof has any considerable value in deciding the question, if we were to ascertain how many descendants of rheumatic patients escaped the disease, or determine how many of those patients, now classed as rheumatic by heredity, were born prior to their parents suffering from the disease. And while I believe that such inquiries would show a different result, or would change our opinions from what are at present held, I do not think we should be any more certain of the true characteristic of rheumatism in this respect than we are at present."

Dr. Longstreth takes syphilis as the type of an inherited disease, and considers that a disease when inherited should appear in the offspring in very early life. Judged by this standard, tubercle has no better claim to be ranked as hereditary than rheumatism. It seems to us that the

author has entirely overlooked the tendency to disease, or "diathesis," which we on this side of the water are accustomed to consider as having a real existence and playing an important part in many diseases. In the chapter on the pathology of rheumatism the author discusses the local or inflammatory theory, the vascular theory, the nervous and vaso-motor theories, the chemical theory (lactic acid), and lastly, the infectious theory, giving the arguments in support of and against each with impartiality and much acumen. If he has any leaning towards any it would appear to be in favour of the last-mentioned theory. The author deals in the same way with the subject of treatment, and shows himself to be thoroughly conversant with the most recently received ideas both in this country and on the Continent. Dr. Longstreth has in the work before us shown not only that he is a careful and scientific observer, but that he can examine the writings of others with courtesy and impartiality.

*Lectures on Cataract: its Causes, Varieties, and Treatment.* Six Lectures delivered at the Westminster Hospital. By GEORGE COWELL, F.R.C.S. London: Macmillan and Co. 1883.

WITHOUT any claim to originality, these lectures give a very good account of all the ordinary varieties of cataract and of the different methods of operation for their removal. The usually recognised causes of cataract are mentioned, but we would take exception to the author's opinion that "straining of accommodation by continuous work at minute objects is a common cause." In soft cataract Mr. Cowell trusts to repeated needling, and considers the suction operation dangerous. The linear extraction as here described for such cases would, we think, be attended by still greater risks. An excellent description is given of a modified linear extraction operation for senile cataract. Our author protests against shutting up cataract patients for a week or so after the operation in a dark room, as then "the vital processes of the body cannot be performed." He asserts that the great proportion of lamellar cataracts are non-progressive, and recommends iridectomy down and in as the most satisfactory operation in such cases. The book is neatly got up, and the accompanying illustrations are excellent.

*A Dictionary of Domestic Medicine and Household Surgery.* By SPENCER THOMSON, M.D. Seventeenth Edition, by J. C. STEELE, M.D., assisted by the Author. London: Charles Griffin and Co. 1883.

THE popularity of this work is abundantly testified to by the fact that sixteen editions have been exhausted during the last thirty years. In that time the work has only been revised once, in 1864, or nearly twenty years ago, so that the progress made since then has naturally afforded sufficient material for another revision. In the hands of Dr. Steele no important additions to our knowledge have been allowed to pass unnoticed, whilst at the same time the original aim and object of the work has been kept constantly in view. The present edition is well got up, and the diagrams and woodcuts are well executed. We have no doubt that this volume will prove as popular as its predecessors.

*The Bristol Medico-Chirurgical Journal*, No. 1. Edited by J. GREIG SMITH, M.A., F.R.S.E. Bristol. July, 1883.

THE first half of this number is occupied by two papers on the doctrine of the contagiousness of phthisis. Dr. Shingleton Smith writes on the "Proofs of the Existence of Phthisical Contagion," and Dr. Markham Skerritt on "Clinical Evidence against the Contagiousness of Phthisis." Dr. Smith says he has been led to the following conclusions regarding phthisis or tubercle, viz.:—"1. That tubercle is a true zymotic disease of specific nature in the same sense as typhoid fever, etc. 2. That, like these diseases, tubercle never originates spontaneously, but is perpetuated solely by the law of continuous succession. 3. That the tuberculous matter itself is (or includes) the specific morbid matter of the disease, and constitutes the material by which phthisis is propagated from one person to another, and disseminated through society." Dr. Skerritt's conclusions are—"1. That evidence derived from experiments upon the lower animals must be received with caution; and that it does not follow that a disease which is contagious in these animals is conta-



gious also in man. 2. That it has not been conclusively proved that the bacillus is the cause rather than associated with it as a secondary phenomenon; and further, that if the disease be shown to be the bacillus, even then it is not necessarily contagious, as malarial fever is not contagious although it has been induced by inoculation of an associated organism. 3. That clinical experience is strongly opposed to the theory that phthisis is a contagious disease in the ordinary sense of the term. 4. That there is not sufficient evidence of the actual occurrence of phthisis in man by contagion." We fancy that the majority of practitioners will agree with Dr. Skerritt that the contagiousness of phthisis is, as yet, not proven. Amongst the other contributions to this number are a short article on the use of the cardiograph in medicine, by Mr. Munro Smith; some notes from the surgical out-patient room, by Mr. Harsant; two cases of compression of the spinal cord by sarcomatous growths from the soft membranes, by Dr. E. Long Fox; a case of ulcerative endocarditis of the tricuspid valve, by Dr. J. E. Shaw; and some interesting or rare cases by the Editor and others. The book is nicely got up as regards type and paper, and we are glad to notice that a goodly number of practitioners in the neighbourhood have become subscribers. The *Bristol Medico-Chirurgical Journal* has made an excellent start under favourable auspices; we hope it may "live long and prosper."

## FOREIGN CORRESPONDENCE.

### EGYPT.

(From a Correspondent.)

CAIRO, August 18.

AN epidemic developed at Damietta in the latter half of July last; from thence it spread itself over all Lower Egypt and Cairo, where there have been as many as 480 deaths in a day. Now Cairo is almost free, but the epidemic prevails still in Upper Egypt and Alexandria. There was much controversy, at the first, about the nature of the disease: some medical men called it a gastro-enteritis, with cerebral symptoms; others regarded it as a kind of pernicious fever from malaria; and others again thought that it must be a disease of a quite new kind: but at last the general opinion agreed that it was true Asiatic cholera, the same that has been seen in Egypt on other occasions.

There cannot be the slightest doubt of the nature of the disease in the mind of anyone who has, even once only, seen cholera, as both the symptoms in the patients and the anatomo-pathological alterations found in the dead body have been the same that are generally described and seen in true cholera.

The question as to its origin is more difficult to resolve. Thus, the opinions that have always divided the medical world about the origin of epidemics arose in this instance. Has the disease come from without, brought by travellers or goods coming from India? or has it developed from bad local conditions? The origin of cholera in any epidemic has been constantly discussed, and with little profit; and the question is still one to be solved. This time also there are the contagionists and the epidemiologists, the believers in rigorous quarantine measures, and the upholders of sanitary works to improve the conditions of the country. In this state of things is it not better to have recourse to both kinds of measures, with the view of better preventing the diffusion of the disease?

There is no doubt that the sanitary conditions of Egypt are very bad, and at a level lower than the apparent degree of civilisation of the country would lead anyone to suppose. No drainage, no system of sewers, bad habitations, bad feeding among the lower classes, general dirtiness, foul water for drinking, bad exhalations of every kind, and especially from dead bodies, both human and animal,—these are all conditions that explain the facility and rapidity with which any epidemic disease would spread. But as to whether the germ of the disease must have been brought from without, or remains hidden in the soil waiting the opportunity for developing itself, is a problem less easy of solution. There is no doubt that in Egypt in the first half of the year a dreadful epizootic prevailed among the cattle, and that the dead bodies were principally thrown into the Nile and its

canals, and that this was the cause of the bad condition of water that obtained in the summer—in fact, the microscopical examination of the deposit of the Nile water never showed such large numbers of dead bodies of *daphnie*, with bacteria and micrococci, as were seen this year about the beginning of July, when the Nile water was to be compared to the water of a stagnant pool. Add the consequences of the insurrection and war, and you will confess that the best conditions for giving rise to an epidemic have been present. Certainly we have no facts sufficient to prove that cholera had never left Egypt since the epidemic of 1865, and that it can be considered as endemic in the country. But we cannot deny that Egypt offers conditions very like those of India, and that there is nothing more probable than that the germs of cholera may find here as good a soil to maintain themselves and develop as in the valley of the Ganges. There are, indeed, many points of resemblance between India and Egypt. Both countries belong to hot climates; in both we have large classes of persons who live in defiance of the commonest rules of hygiene, especially as regards cleanliness and choice of food; both are traversed by large rivers, into which is thrown every kind of organic matter in a state of decomposition, and from such sources especially the lower classes, and animals generally, derive their drinking-water; and both countries have many parasitical diseases in common. All this shows the necessity in Egypt for resorting to sanitary works such as those which have succeeded in improving the state of health of many towns of India. To obtain this it is necessary to reform the sanitary administration, to render it quite independent of the local government, and to put at its head a man of sufficient energy to triumph over the natural inertia and passive opposition of the native administrators.

## OBITUARY.

ROBERT BOYD, M.D. EDIN., F.R.C.P. LOND., M.R.C.S.

DR. ROBERT BOYD, whose sad but noble death, at the age of seventy-five, we have already briefly recorded, was one of the most indefatigable and eminent workers in psychological medicine; and his death will be deeply regretted as a great loss to the public, to the profession, and especially to that department of it to the advancement and practice of which he devoted his talents and industry.

Dr. Boyd became a Member of the Royal College of Surgeons of England in the year 1830, and in the following year he graduated as Doctor of Medicine in the University of Edinburgh. In 1836 he became a Licentiate of the Royal College of Physicians, London, and in 1852 was elected to the Fellowship of the College. He filled, with great success as a practical physician, and with remarkable industry and energy as a worker at pathology, and a careful collector of statistics, several important appointments. He was for some time Resident Physician at the Marylebone Workhouse Infirmary; afterwards Physician and Superintendent of the Somerset County Lunatic Asylum; and then proprietor and manager of the Southall Park Private Asylum; and he never failed to use fully his opportunities for original research. He held strongly the opinion that the workhouse infirmaries, as established under the Metropolitan Poor-Law Act of Mr. G. Hardy (now Lord Cranbrook), afforded great opportunities of study to junior qualified medical men and students. And in his Presidential address to the Medico-Psychological Association, in 1870, he insisted on this, remarking that that Act recognised the admission of students to the infirmaries, and added—"A student will therefore have an opportunity of observing cases as they are met with in private practice; and, from the mortality resulting from the great number of aged and infirm persons in such institutions, he will have an excellent opportunity of acquiring a knowledge of morbid anatomy. The wards set apart for lunatics would also be most useful, as in some degree supplying a deficiency in medical education, namely, the study of insanity—a knowledge of which is so essential in practice, amongst the poor especially." That Dr. Boyd practised with great diligence what he thus recommended—viz., the earnest use of all opportunities of study that came in his way—is proved by his very numerous contributions to



the literature of pathology and psychological medicine. He published annual "Reports on the Pauper Lunatics" at the St. Marylebone Infirmary and the County Somerset Asylum; and was the author of "Pathological Contributions" to the *Royal Medical and Chirurgical Transactions*, vols. xxiv. and xxxii., and to the *Edinburgh Medical Journal*, vols. lv. to lxxii.; of "Tables of the Weights of the Human Body and Internal Organs," published in the *Philosophical Transactions*; and of a paper on "The Weight of the Brain at Different Ages and in Various Diseases," read before the British Medical Association in 1875. Papers from him on "Vital Statistics," on "Insanity," on "Diseases of the Nervous System," and on cognate subjects, also appeared in other journals; but the larger number of his contributions were published in the pages of the *Journal of Mental Science*. The most important, perhaps, and most valuable of all his contributions to medical science is his article on General Paralysis of the Insane, published in the *Journal of Mental Science* in May and October, 1871. He made most careful post-mortem examinations in the cases of 155 deaths from that affection in the Somerset County Asylum, examining the condition of the spinal cord, as well as of the brain and other organs, microscopically as well as by the naked eye; and through these laborious examinations he largely advanced our knowledge of the pathology of the disease. To the same journal he contributed a paper on "Tumours of the Brain," one of the results of 1039 post-mortem examinations made in the St. Marylebone Infirmary, and 875 made in the Somerset County Asylum; and papers on the "Care and Treatment of the Insane Poor," on "Causes of Death in Chronic Insanity," and many other subjects. All his works bore the stamp of conscientious care and labour, and close, accurate observation; and he carried the same conscientiousness and thoroughness into all his actions; he was trustworthy and trusted as practitioner and friend. It will be remembered that he lost his life through his eagerness and anxiety to save all those under his care in Southall Park House. It is said that he and his son, Mr. W. Boyd, who perished with him, had been engaged in directing and aiding the escape of some of the patients by means of a ladder kept attached to the outside of the house for the purpose, and might have saved themselves in the same way, but they heard sounds as of some one knocking inside the house, and ran back into the burning room to give assistance, when the roof fell in, and they were buried in the ruins.

JOHN HENRY LOFTIE STONEY, M.D., Q.U.I.,  
F.R.C.S. IRE.

Almost suddenly, Dr. Loftie Stoney passed away on the afternoon of Sunday, August 26. Until the Thursday preceding his death, he was in the enjoyment of his usual good health: a violent hæmoptysis then set in unexpectedly, which, although checked by the measures adopted by his devoted and skilful medical attendants, left him so prostrate that he sank quickly when the bleeding unfortunately recurred on Saturday night. The source of the hæmorrhage is supposed to have been an aneurysm.

Dr. Loftie Stoney, although a comparatively young man, had made his mark as an anatomist, and as an ophthalmic and aural surgeon. He graduated in 1861 as Doctor of Medicine of the Queen's University in Ireland, and in the same year he became a Licentiate of the Royal College of Surgeons in Ireland, proceeding to the Fellowship of that body in 1867. For many years he filled with distinction the post of Ophthalmic and Aural Surgeon to the City of Dublin Hospital, and in 1879 he was elected Lecturer on Anatomy in the Carmichael College of Medicine, Dublin. His untimely decease has caused deep sorrow to his many friends.

JOHN ISMAY ATKINSON, M.R.C.S. ENG., L.S.A. LOND.

MR. JOHN ISMAY ATKINSON, who died at his residence in Wylam-on-Tyne, on August 23, in his sixty-eighth year, will be long and deeply regretted throughout a very wide district of Tyneside. Mr. Atkinson, who was a man of good general education, received his medical education in Edinburgh, settled down in practice in Wylam some forty-four years ago, and continued to labour there, and throughout all parts of the country round, to the time of his death. He commanded great reputation as a skilful and successful practitioner in the three great departments of the profession

—medicine, surgery, and midwifery; and in innumerable homes he was a trusted and valued friend, confidant, and adviser. In April last, Mr. Atkinson's patients and friends presented him with a brougham and a silver inkstand; and an illuminated address, stating that the testimonial was presented to him "as a token of their high appreciation of his eminent abilities as a medical practitioner of forty-four years' standing in Wylam and the surrounding district of Tyneside, who, by his many excellent qualities as a professional friend and adviser, his unwearying exertions for the comfort and well-being of his numerous patients, and his warm-hearted sympathy on all occasions of difficulty and danger, together with his benevolent attention to the wants of the necessitous poor of the locality, has earned for himself the general respect and admiration of the community, amongst whom his name is become familiar as a household word." In thanking his friends, Mr. Atkinson employed phrases that have proved mournfully prophetic—"I cannot but look," he said, "upon the testimonial as one of the 'milestones on the track of time,' which remind me of the length of the way that has been travelled, and of the shorter portion of the journey left to be traversed." But four months have passed, and Mr. Atkinson's journey in time is ended; but it will be long before his fame fades from out the Tyneside, or his memory out of the hearts of his friends and patients.

SURGEON PETER MACPHERSON GRANT,  
M.B., C.M. EDIN., B.Sc.

THIS deserving young officer, at the age of thirty-four, has fallen an early victim to the recent outbreak of cholera in India. In the district of Western Malwah, where Dr. Grant was stationed as Medical Officer to the First Central India Horse, the disease had made its appearance by the beginning of July, at which time there seemed to be little indication of the outbreak assuming a serious form. On the 16th of that month he was called on to attend a case occurring in the regiment, while he himself was suffering from the effects of an attack of malarial dysentery, and on the following day he experienced some of the premonitory symptoms of cholera. These symptoms for a while passed off, but recurred with renewed violence on the morning of the 18th, and death took place early on the morning of the 22nd.

Dr. Grant had been in the Indian Medical Service since 1877, and, during his short career, had earned for himself in a high degree the respect and affection of his fellow-officers and of the men of the various regiments to which he had been attached, as much on account of the untiring attention he bestowed on those under his care, whether native or European, as on account of his professional skill and attainments. He received his education at the University of Edinburgh, in which city, after taking the degrees of M.B. and C.M. in 1870, he held various hospital appointments. He afterwards spent some time in Berlin and Vienna, in order to perfect his knowledge of the diseases of the larynx, with the view of devoting himself specially to that department of medical science. He was, however, subsequently induced to turn his attention to the Indian Medical Service, into which he gained admission in 1876, ranking high in the list both at the entrance examination and at Netley. Before leaving for India he took the B.Sc. degree in Public Health at Edinburgh in 1877. His first station in India was at Mian Mir, and towards the end of 1877 he accompanied the troops against the Jowaki Afridis, when he served with distinction. On the cessation of hostilities he took duty on the Cashmere frontier, among the fugitives from the famine at that time existing in the Cashmere Valley, and while engaged on this service contracted typhus fever, to which he nearly succumbed. On his recovery he was attached to the Central India Horse, and in 1880, during the war in Afghanistan, served for some time as surgeon on General Roberts's staff, and afterwards received the respective medals for this and for the Jowaki campaign. During his career in the Service, Surgeon Grant had the happiness of gaining the esteem and affection of those with whom he was brought in contact, for his genuine goodness of heart and never-failing considerate attention to all.

APOTHECARIES' HALL, LONDON.—The examination in Arts for registration of medical students takes place on Thursday, Friday, and Saturday, September 13, 14, and 15.



## MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of candidates who passed at the recent examinations:—

## INTERMEDIATE EXAMINATION IN MEDICINE.

## ENTIRE EXAMINATION.

*First Division.*—Charles Edward Adams, University College; Samuel King Alcock, St. Bartholomew's Hospital; Frank Hugh Barendt, Royal Infirmary School of Medicine and University College, Liverpool; John Ogleshorpe Wakelin Barratt, B.Sc., Mason and Queen's Colleges, Birmingham; William Leonard Braddon, Guy's Hospital; Albert Carless, King's College; Eustace Rhodes St. Clair Corbin, University College; William Kelyack Dale, King's College; Arthur Frederick Davenport, University of Edinburgh and University College; Edmond Lucien de Chazal, University College; Leonard Maurice Gabriel, St. Bartholomew's Hospital; Edwin Goodall, Guy's Hospital; William John Gow, St. Bartholomew's Hospital; John Power William Gray, King's College; George Ezra Halstead, B.A., B.Sc., Guy's Hospital; Franke Chamberlain Hart-Smith, University College; Frank Hichens, London Hospital; John Stuart Hutton, St. Thomas's Hospital; Raymond Johnson, University College; Sydney Harold Jones, St. Thomas's Hospital; Hugh Cameron Kidd, St. Thomas's Hospital; Frederic Charles Larkin, Royal Infirmary School of Medicine and University College, Liverpool; Frederick Lever, Guy's Hospital; George Hyde Melson, Queen's and Mason Colleges, Birmingham; Alfred Edward Price, Guy's Hospital; Frederick Osmund Stedman, Charing-cross Hospital; George Stevenson, St. Bartholomew's Hospital; Edgar Herbert Thane, University College; John Wychenford Washbourn, Guy's Hospital; Robert Briggs Wild, Owens College; William Alfred Wills, Westminster Hospital.

*Second Division.*—William Arthur Aikin, Guy's Hospital; William Henry Bailey, St. Bartholomew's Hospital; Sidney Barwise, Queen's and Mason Colleges, Birmingham; Eustace Frederick Bright, University College; James Calvert, B.A., St. Bartholomew's Hospital; Letterstedt Frederick Childe, Guy's Hospital; Joseph Clegg, Owens College; Frederick Edge, Owens College; Frederick Gault Finley, Owens and McGill Colleges; Henry Willoughby Gardner, St. Bartholomew's Hospital; Edward Wilberforce Goodall, Guy's Hospital; Joseph George Harsant, Guy's Hospital; Francis Heatherley, Guy's Hospital; Robert Lawson, St. Thomas's Hospital; Priestley Leech, Owens College; John Marriott, Charing-cross Hospital; Frederick William Morison, St. Bartholomew's Hospital; Edward Pain Mourilyan, Guy's Hospital; Charles Drummond Muspratt, Guy's Hospital; Francis Horatio Napier, St. Bartholomew's Hospital; Patrick Moriarty O'Brien, Royal Infirmary School of Medicine and University College, Liverpool; Mary Elizabeth Pailthorpe, London School of Medicine for Women and Royal Free Hospital; Samuel Esmond Prall, Guy's Hospital; Alfred Martin Sutton, Guy's Hospital; Benjamin Wilfred Thomas, Charing-cross Hospital; Alfred William Hinsley Walker, Owens College; Frank Joseph Wethered, Bristol Medical School; Patrick Watson Williams, Bristol Medical School.

## EXCLUDING PHYSIOLOGY.

*First Division.*—Walter Essex Wynter, Middlesex Hospital.  
*Second Division.*—Charles Kingsley Ackland, King's College; Edward Roberts, Guy's Hospital; Charles Henry Taylor, King's College; Reginald Muzio Williams, St. Thomas's Hospital.

## PHYSIOLOGY ONLY.

*First Division.*—Freeland John Freeland, King's College.  
*Second Division.*—George Alfred Carpenter, St. Thomas's Hospital; Alfred Owen Lankester, St. Bartholomew's Hospital; William Herbert Lister Marriner, St. Thomas's Hospital.

## EXAMINATION FOR HONOURS.

## ANATOMY.

*First Class.*—Edgar Herbert Thane (Exhibition and Gold Medal), University College; Raymond Johnson (Gold Medal), University College; John Wychenford Washbourn, Guy's Hospital.

*Second Class.*—Edward Wilberforce Goodall, Guy's Hospital, and Franke Chamberlain Hart-Smith, University College, equal; Robert Briggs Wild, Owens College; John Power William Gray, King's College; George Ezra Halstead, B.A., B.Sc., Guy's Hospital; William Alfred Wills, Westminster Hospital.

*Third Class.*—Arthur Frederick Davenport, University of Edinburgh and University College; Sydney Harold Jones, St. Thomas's Hospital.

## MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

*First Class.*—Raymond Johnson (Exhibition and Gold Medal), University College; Edgar Herbert Thane, (a) University College; James Calvert, (a) B.A., St. Bartholomew's Hospital, Albert Carless, (a) King's College, Eustace Rhodes St. Clair Corbin, (a) University College, equal; Frederick Gault Finley, Owens and McGill Colleges, Henry Willoughby Gardner, St. Bartholomew's Hospital, William John Gow, St. Bartholomew's Hospital, and George Stevenson, St. Bartholomew's Hospital, equal; William Leonard Braddon, Guy's Hospital, Arthur Frederick Davenport, University of Edinburgh and University College, Robert Briggs Wild, Owens College, and William Alfred Wills, Westminster Hospital, equal.

*Second Class.*—Frank Hichens, London Hospital, Priestley Leech, Owens College, Charles Drummond Muspratt, Guy's Hospital, and John Wychenford Washbourn, Guy's Hospital, equal; Letterstedt Frederick Childe, Guy's Hospital.

*Third Class.*—Frederick Osmund Stedman, Charing-cross Hospital; Frank Hugh Barendt, Royal Infirmary School of Medicine and University College, Liverpool, and Frederick Lever, Guy's Hospital, equal.

## ORGANIC CHEMISTRY.

*First Class.*—John Wychenford Washbourn (Exhibition and Gold Medal), Guy's Hospital; Frank Hichens, (b) London Hospital, and George Stevenson, (b) St. Bartholomew's Hospital, equal.

*Second Class.*—George Ezra Halstead, Guy's Hospital; William Leonard Braddon, Guy's Hospital.

(a) Obtained the number of marks qualifying for the Exhibition and Medal.

(b) Obtained the number of marks qualifying for a medal.

## PHYSIOLOGY AND HISTOLOGY.

*First Class.*—Robert Briggs Wild (Exhibition and Gold Medal), Owens College; Edgar Herbert Thane (Gold Medal), University College.

*Second Class.*—Eustace Frederick Bright, University College; Frederick Gault Finley, Owens and McGill Colleges; William Leonard Braddon, Guy's Hospital; William John Gow, St. Bartholomew's Hospital; Raymond Johnson, University College; Priestley Leech, Owens College.

*Third Class.*—Frederick Lever, Guy's Hospital; Patrick Moriarty O'Brien, Royal Infirmary School of Medicine and University College, Liverpool; Frederick Edge, Owens College.

## INTERMEDIATE SCIENCE AND PRELIMINARY SCIENTIFIC (M.B.) CONJOINTLY.

## INORGANIC CHEMISTRY.

*First Class.*—Ernest Henry Starling (Prel. Sci.), [Exhibition,] Guy's Hospital; Frederick Henry Hatch (c) (Int. Sc.), University College; William Poplewell Bloxam (Int. Sc.), King's College; John Lloyd Roberts (Prel. Sci.), Guy's Hospital.

*Second Class.*—G. Whitefield Sutherland (B.A. Syd., Prel. Sci.), University of Edinburgh and University College; Hugh Richard Jones (Int. Sc.), Liverpool Institute and St. John's College, Cambridge; Otto Christopher Overbeck, J.G.L. (Int. Sc.), University College.

*Third Class.*—Percy Ashworth (Prel. Sci.), Owens College, George Black (Prel. Sci.), Guy's Hospital, and Frederick Howard Taylor (Prel. Sci.), London Hospital and private study, equal; Evelyn Oliver Ashe (Prel. Sci.), Owens College, Cecil Whitehall Cooke (Prel. Sci.), St. Thomas's Hospital, and George Edward Rennie (B.A. Syd., Prel. Sci.), University College, equal; Walter Harris (Int. Sc.), Bradford Grammar School and private tuition; Alfred Ernest Field (Int. Sc.), Trinity College, Oxford; Philip Henry Hensley (Prel. Sci.), King's College.

## EXPERIMENTAL PHYSICS.

*First Class.*—John Buchanan (Int. Sc.), [disqualified by age for the Arnott Exhibition and Medal], University and King's Colleges; Ernest Henry Starling (Prel. Sci.), Guy's Hospital.

*Second Class.*—John Lloyd Roberts (Prel. Sci.), Guy's Hospital; Edward George Baker (Int. Sc.), private study.

*Third Class.*—John Maxwell Finnegan (Int. Sc.), Queen's College, Belfast, and private tuition; Mary Madeline Adamson (Int. Sc.), Bedford College, London, and Jesse Mary Chambers (Int. Sc.), private study, equal; Hugh Richard Jones (Int. Sc.), Liverpool Institute and St. John's College, Cambridge; Percy Ashworth (Prel. Sci.), Owens College; Henry Edward Whitehead (Prel. Sci.), St. Bartholomew's Hospital.

## BOTANY.

*First Class.*—Robert William Boyce (Prel. Sci.), [Exhibition], University College; Ernest Henry Starling (c) (Prel. Sci.), Guy's Hospital; Charles Hermann Fernau (Prel. Sci.), University College.

*Second Class.*—Llewellyn William Powell (Prel. Sci.), University College; James Edward Huxley Blake (Prel. Sci.), Mason College, Birmingham; John Gardiner (Prel. Sci.), Owens College; Edward George Baker (Int. Sc.), private study.

*Third Class.*—Edwin Birchall Hastings (Prel. Sci.), University College.

## ZOOLOGY.

*First Class.*—George Edward Rennie (Prel. Sci.), University College; Charles Hermann Fernau (Prel. Sci.), University College.

*Second Class.*—Albert Edward Brindley (Prel. Sci.), Owens College; John Gardiner (Prel. Sci.), Owens College.

*Third Class.*—Arthur Ellis Durham (Prel. Sci.), University College, and Frank Lomas Wood (Prel. Sci.), Owens College, equal.

UNIVERSITY OF ABERDEEN.—During the past year the following candidates received degrees in Medicine and Surgery:—

## THE DEGREE OF M.D.

John Barratt, M.B., C.M., P. and O. Service; Harry Arthur Benham, M.B., C.M., Dundee Royal Asylum; Algernon Aaron Cohen, M.B., C.M., Burwash, Sussex; Alexander Downie Diack, M.B., C.M., Fort Beaufort, Cape Colony; John Murray Gibbs, M.B., C.M.; Skene Gordon, M.B., C.M., South Africa; Alexander Hill Griffith, M.B., C.M., Royal Eye Hospital, Manchester; Robert Harvey, M.B., C.M., Professor of Midwifery, Medical College of Bengal, Honorary Surgeon to H.E. the Viceroy of India; Frederick Mortimer Hawkins, M.B., C.M., London; George Robert MacGregor, M.B., C.M., Bingley; Charles Mitchell MacQuibban, M.B., C.M., Aberdeen; John Ramage, M.B., C.M., British Seamen's Hospital, Cronstadt; William Reid, M.B., C.M., Kensington, London; Charles Boards Richardson, M.B., C.M., Brighton; John Ruxton, M.B., C.M., Blackpool, Lancashire; William Dyne Steel, M.B., C.M., Aberavenny; David Tulloch, M.B., C.M., Winnipeg, Canada; John Michael Augustus Wallis, M.B., C.M., Whittingham, Preston; Charles Lindsay Wattie, M.B., C.M., Inverkindie; Alexander John Willcocks, M.B., C.M., Bulandshahr, N.W.P. India.

## THE DEGREES OF M.B. AND C.M.

John Baker, Aberdeen; Robert Milne Beaton, Aberdeen; Alfred Brown, M.A., Welshpool; George Buchan, Aberdeen; Sylvester John Cole, Free-town, Sierra Leone; Henri Cook, Greenock; Alexander Cowley, Dublin; George Forsyth Ashley Da Costa, Kingston, Jamaica; Francis Falconer, M.A., Aberdeen; James Thomson Fraser, Longsight, Manchester; John Gerard, M.A., Aberdeen; Henry Gibbons, Kurrachee, India; John Gordon, Aberdeen; George Grant, Keith; John Gregory, Bridge of Don; Andrew Hosie, Aberdeen; John Inglis, M.A., Aberdeen; David Ireland, Brechin; Charles Jeffrey, Tarland; George Johnston, Fintray; Thomas Mair Johnstone, Ellon; Louis Joseph, Colombo, Ceylon; John Bamford Kerr, Crawshawbooth, Manchester; Alexander Walker Knox, Aberdeen; James Logie, Huntly; James Francis Macdonald, Aberfeldy; John Norman Emslie MacLennan, Lumphanan; Cyril James Mansfield, Ryde, Isle of Wight; John Matheson, M.A., Plockton, Ross-shire; Frederic Maude, Highgate, London; John McCombie, Oxtou, Morayshire; Wm. McKenzie, M.A., Fochabers; Grenville Edwin Moffett, Calcutta; James Moir, St. Kilda, Victoria; John Drew Moir, St. Kilda, Victoria; William Moir, Aberdeen; James Murray, Nairn; Alexander Nicoll, Rhynie; David Petty, Montrose; David Prain, M.A., Fettercairn; James Robert Purdy, Morpeth; Richard Rees, Aberdovey; James Robertson Reid, Aberdeen;

(c) Obtained the number of marks qualifying for the exhibition or prize.



Alexander Rennie, M.A., Wester Fintray; James Taylor Robb, Keith; James Alexander Ross, Aberdeen; William Scott, Auchairn, Keith; John George Scroggie, Aberdeen; William John Henderson Sinclair, Dumbearth, Wick; Alexander Gillespie Smith, M.A., Torphins; James Lawrence Smith, Aberdeen; William Allan Stewart, Buxburn, Newhills; George Cardno Still, Aberdeen; James Struthers, Aberdeen; James Taylor, M.A., New Deer; James Longmore Taylor, M.A., Cullen; Alexander Philip Thom, Durris, Kincardineshire; George John Kemp Turner, Ellon; John Turner, Portsmouth; George Vincent, Bedfont, Middlesex; Robert Walford, Colchester; Arthur Meredith Whitehead, Nottingham.

Of the above-named candidates, David Prain, M.A., received his degrees in Medicine and Surgery with highest academical honours; John Gerard, M.A., David Ireland, James Francis Macdonald, Alexander Rennie, M.A., and William Scott received their degrees in Medicine and Surgery with honourable distinction. At the same time, Charles Alexander Butchart, William Kelty, William Barclay Livermore, Alexander Reid, William Ledingham Ruxton, and Arthur Greatorex Smith were certified as having passed all the examinations, but did not graduate; and the following candidates are now declared to have passed the First Division of the First Professional Examination:—

James Richardson Anderson, Henry Angus, Charles Arthur Arnold, Thomas Charles Bennett, John Fairbairn Binnie, Peter Cameron, Arthur Wilson Chapman, Alexander Forbes C. Clark, Frank Lang Collie, Ernest George Coward, Alexander W. Dalgarno, William Alfred Deason, Thomas Finlayson Dewar, William Diack, George Hubert Ede, William Boucher Evans; George Findlay, Alexander Forbes, Arthur Daniell Forbes, Charles Frederick Forbes, Henry Farquharson Forbes, James Fraser, James Winton Fraser, Thomas Henderson Fyfe, George Henry Grant, William Greig, Alexander N. Grieve, James Hall, Alexander G. R. Ingram, Alexander Innes, Alexander Seymour Jameson, Donald G. G. Macdonald, George B. D. Macdonald, Alfred Mackay, Leslie Samuel Manning, Edmund Thomas Martin, William Milligan, Alexander Milne, Robert Morrison, Stephen Morison, James Nicol, Patrick John Nicoll, Alexander A. Philip, Charles Reid, George Marr Reid, John Russell, William Corke Sheard, Robert Smith, Charles Henry J. Souter, John Souter, Robert B. Tydd Stephenson, Herman B. T. Symons, John Taylor, James Thomson, William Donald Urquhart, Frederick William Walker, Cresswell Fitzherbert White, George Williamson, George Nicol Wilson, Adolph Zimpel.

The following candidates to have completed the First Professional Examination:—

Alexander de Wet Allan, John Barclay, Alfred Tennyson Brown, William Robert Cheves, John Duncan, Frederick Arthur Foy, Thomas Best Gibson, James William M. Gunn, Philip James Lumsden, John Mackenzie, Archibald D. Mackinnon, John Maclean, John Malcolm, George Leslie H. Milne, Thomas George Paterson, David Taylor.

The following candidates to have passed the Second Professional Examination:—

Francis Alexander Bennet, James Wilson Bett, John Harley Brooks, Gregor Burgess, James Forsyth Craig, Henry M. Cyril Dalton, Alexander Gordon Davidson, James Steel Dickie, Alexander Gray Duguid, John Charles D. Irvine, William Leith, Andrew Anderson Maclellan, Donald McLeod, George Milne, James Mitchell, Irvine Kempt Reid, Alfred Ernest Roberts, William Robertson, John Russell, James Savege, William Booth Skinner, Leslie Fyfe Walker, James Will, James Martin Young.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 23:—

Abbott, Frederick Ernest, The Manse, Penrith.  
Alsop, Clement, Teignmouth.  
Cheves, James Trelawny, Millbrook, Devonport.  
Gibbon, Frederick William, Seaham, co. Durham.  
Larkin, Arthur Ernest, St. Thomas's-terrace, Southwark.  
Rhabha, Rev. Shapurji Dadabhai, Queen's-road, Norland-square, W.  
Robinson, Louis, Saddlescombe, Sussex.  
Smithwick, Thomas, Middleton, Cork.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Roberts, George Augustus Edward, Middlesex Hospital.  
Simpson, George Augustus Garry, London Hospital.

#### DEATHS.

BARTLETT, JOSEPH JAMES HENRY, L.R.C.P., at 35, Ladbroke-gardens, Notting Hill, on August 25, in his 44th year.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.**—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and must produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be sent to the Secretary, on or before September 8.

**GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.**—House-Surgeon. Salary at the rate of £100 per annum, with board, lodging, and washing. Candidates must possess a medical and surgical qualification and be registered. Applications, with testimonials, to be forwarded to the Secretary on or before September 1.

**GENERAL LYING-IN HOSPITAL, YORK-ROAD, LAMBETH, S.E.**—House-Physician. Salary at the rate of £50 per annum, with board and residence. The post is tenable for four months. Applications and testimonials to be addressed to the Secretary, at the Hospital, on or before September 7.

**HOSPITAL FOR WOMEN, SOHO-SQUARE, W.**—House-Physician. (For particulars see Advertisement.)

**HUNTINGDON COUNTY ASYLUM.**—House-Surgeon. (For particulars see Advertisement.)

**JERSEY PUBLIC LUNATIC ASYLUM.**—Superintendent Medical Officer. (For particulars see Advertisement.)

**WESTERN OPHTHALMIC HOSPITAL, 155, MARYLEBONE-ROAD, W.**—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons of England, and have attended ophthalmic practice for twelve months. Address, Secretary, at the Hospital, on or before September 1.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\*\* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

*Bedford Union.*—Mr. Robert Gibbs has resigned the Harold District: area 11,004; population 2944; remuneration by fees.

*Ormskirk Union.*—Mr. George Pilkington has resigned the North Meols District: area 14,881; population 43,757; salary £60 per annum.

#### APPOINTMENTS.

*Abergavenny Union.*—Wm. D. Steel, C.M., M.D., to the Llanarth District.  
*Bridport Union.*—Wm. A. E. Hay, M.R.C.S. Eng., L.S.A., to the Fourth District.

*Skirlough Union.*—James R. Forrest, M.R.C.S. Eng., L.S.A., to the Brandes Burton District.

**HOW TO SLEEP IN A RAILWAY CARRIAGE.**—Many weary persons have tried to solve this problem, and have tossed about for hours in restless disappointment. Dr. Outten, a German physician, has applied the laws of physiology to the matter, and announces (*Allg. Central. Zeitung*) a satisfactory solution. If a person lies down with the feet towards the engine, the movement of the train tends to draw the blood from the brain towards the feet, and cerebral anæmia is produced, and then sleep. If he lies with his head nearer the locomotive (as is the custom in Germany), the movement of the train produces a cerebral hyperæmia incompatible with sweet repose. Dr. Outten has verified his views by many experiments. His directions are hardly needed in America, where the berths of sleeping-cars are generally made up so that the position is as indicated by physiology and our German *confrère*. In this connexion, however, we would say that many persons are unaware of the fact that additional comfort and better sleep in travelling can often be obtained by judiciously using the bromides.—*New York Medical Record*, August 4.

#### APPOINTMENTS FOR THE WEEK.

##### September 1. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

##### 3. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

##### 4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

##### 5. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

##### 6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

##### 7. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



## VITAL STATISTICS OF LONDON.

Week ending Saturday, August 25, 1883.

## BIRTHS.

Total births ... .. 2450  
 Corrected weekly average in the 10 years 1873-82 ... 2608.9

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	699	657	1356
Weekly average of the ten years 1873-82, } corrected to increased population ...	795.1	714.2	1509.3
Deaths of people aged 80 and upwards ...	...	...	58

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	6	4	3	6	...	2	...	...	8
North ... ..	905947	10	11	1	8	...	9	...	1	14
Central ... ..	282238	4	3	3	1	...	...	...	...	5
East ... ..	692738	13	22	4	4	...	4	...	...	18
South ... ..	1265927	1	20	9	8	...	1	...	2	18
Total ... ..	3816483	1	53	49	19	27	...	16	3	63

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	30.023 in.
Mean temperature ... ..	64.0°
Highest point of thermometer ... ..	85.1°
Lowest point of thermometer ... ..	44.8°
Mean dew-point temperature ... ..	55.7°
General direction of wind ... ..	Variable.
Whole amount of rain in the week ... ..	0.01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
 Week ending Saturday, August 25, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Aug. 25.	Deaths Registered during the week ending Aug. 25.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)		Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.		Weekly Mean of Daily Mean Values.	In Inches. In Centimetres.
London ... ..	3955814	2450	1356	17.9	85.1	44.8	64.0	17.78	0.01 0.03
Brighton ... ..	111262	57	39	18.3	77.0	52.0	62.5	16.95	0.00 0.00
Portsmouth ... ..	131478	91	49	19.4	...	...	...	...	...
Norwich ... ..	89612	58	31	18.1	...	...	...	...	...
Plymouth ... ..	74977	44	20	13.9	71.0	45.0	59.3	15.17	0.00 0.00
Bristol ... ..	212779	114	53	13.0	73.6	46.0	59.1	15.06	0.00 0.00
Wolverhampton ... ..	77557	63	36	24.2	75.4	43.1	58.5	14.72	0.00 0.00
Birmingham ... ..	414346	276	171	21.5	...	...	...	...	...
Leicester ... ..	129483	100	41	16.5	75.0	46.0	59.6	15.34	0.00 0.00
Nottingham ... ..	199349	138	76	19.9	76.2	41.2	59.4	15.22	0.00 0.00
Derby ... ..	85574	64	30	18.3	...	...	...	...	...
Birkenhead ... ..	83700	62	26	15.3	...	...	...	...	...
Liverpool ... ..	566753	406	250	23.0	76.0	45.0	59.2	15.11	0.00 0.00
Bolton ... ..	107862	76	35	16.9	...	...	...	...	...
Manchester ... ..	339252	244	155	23.8	...	...	...	...	...
Salford ... ..	190465	125	79	21.6	...	...	...	...	...
Oldham ... ..	119071	80	52	22.8	...	...	...	...	...
Blackburn ... ..	108460	96	36	17.3	...	...	...	...	...
Preston ... ..	98564	70	57	30.2	73.0	51.0	59.2	15.11	0.01 0.03
Huddersfield ... ..	84701	43	21	12.9	...	...	...	...	...
Halifax ... ..	75591	42	21	14.5	...	...	...	...	...
Bradford ... ..	204807	112	52	13.2	73.3	49.4	59.4	15.22	0.03 0.08
Leeds ... ..	321611	202	134	21.7	74.0	50.0	60.0	15.56	0.14 0.36
Sheffield ... ..	295497	194	127	22.4	76.0	45.0	59.2	15.11	0.00 0.00
Hull ... ..	176296	147	52	15.4	75.0	45.0	59.7	15.39	0.00 0.00
Sunderland ... ..	121117	104	37	15.9	81.0	50.0	62.8	17.12	0.00 0.00
Newcastle ... ..	149464	87	79	27.6	...	...	...	...	...
Cardiff ... ..	90033	77	34	19.7	...	...	...	...	...
For 28 towns ... ..	5620975	5622	3149	19.1	85.1	41.2	60.1	15.62	0.01 0.03
Edinburgh ... ..	235946	148	71	15.7	69.9	48.5	58.1	14.50	0.00 0.00
Glasgow ... ..	515589	373	247	25.0	69.0	44.2	57.6	14.23	0.00 0.00
Dublin ... ..	349685	176	142	21.2	72.4	42.3	57.5	14.17	0.01 0.03

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.02 in.; the lowest reading was 29.91 in. on Monday afternoon, and the highest 30.11 in. on Friday morning.

## NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

## THE ARMY DOCTOR'S CONSOLATION.

Tired, worn out, and weary,  
 They sat when their work was done,  
 And their tone was almost cheery,  
 In spite of Egyptian sun:  
 And they prattled of praise to follow  
 The work they had striven to do.  
 Alas! for the hope so hollow,—  
 How little the Doctors knew!

They took up the London papers,  
 And read with alarmed surprise,  
 They had cut all their little capers  
 In the sight of the great world's eyes;  
 For the Press had listened to tattle,  
 And pandered to itching ears,  
 Which, after the roar of battle,  
 Were agog for scandal and sneers.

For taxation never is funny;  
 And the foeman who runs away,  
 If he leaves behind him no money,  
 Of course leaves "the devil to pay":  
 Somebody's got to suffer,  
 Somebody's got to hang,  
 And the Doctor's the sort of buffer  
 To receive the indignant bang.

"Mad dog!" is a cry of power,  
 To startle a thoughtless throng;  
 Now 'tis the Doctor's hour,  
 Hurry the scandal along:  
 Colonel Jones never got his clyster!  
 Private Brown was deprived of lint!  
 Sergeant Smith had a scandalous blister!  
 And Corporal Trim, no splint!

The golden youth of the "Household,"  
 Though ever prepared to die,  
 Were the first to whimper and outscold,  
 When they couldn't get pudding or pie!  
 No one could sleep for the vermin,  
 No one could rest for the fleas,  
 And the General's staff determine  
 To "show-up" such Doctors as these!

"A lazy, proud set of beggars,  
 Eating and drinking all day;  
 Soda and brandy peggars,  
 Though none of it came our way:  
 Calling themselves Commanders!  
 Before they knew how to drill  
 As soldiers; salute-demanders,  
 When they didn't know how to kill!"

"Fellows with souls apathetic,  
 Who denied the patients grog,  
 And gave vile tartar emetic,  
 To the soldiers who wanted prog!  
 Stir up the public opinion!  
 Demand a Committee at once!  
 Woe to the medical minion!  
 Woe to the surgical dunce!"

Alas for the combatant "Bumble,"  
 The Committee just simply explain,  
 The Doctors did duty, if humble,  
 And are ready to do it again:  
 Beg pardon? Pride scorns it! No matter,—  
 Wrong must happen of course now and then,  
 To all who can work, but not flatter,  
 Nor tout for the praises of men.



J. T. W. B.

Dr. G. Graham, Richmond, Victoria, Australia.—Letter and enclosure received with thanks.

*Alleged Butter Adulteration: The Summons Dismissed.*—A summons, taken out by the Urban Sanitary Authority, Gravesend, against a grocer of West-street, in that town, on the charge of vending adulterated butter, came on again last week on adjournment at the Court House. The borough analyst, on the first hearing, deposed that the sample of butter in question was composed chiefly of animal fat. On the other hand, Mr. Robert Harland, F.C.S., of London, contended he had found, on analysis, the sample was pure butter, produced from the milk of the cow. On this evidence a sample of the butter was sent for analysis to Somerset House. After the reading of the Government report, the Bench dismissed the summons, allowing the analyst's fee of five guineas, and three guineas for the solicitor, and also ordering that a certificate be granted to the vendor of the butter.

*Impure Well-Water: Important Decision.*—The West Hartlepool magistrates have had before them the case of an owner of property who had a house supplied with well-water. The water, on being tested, was pronounced impure and unfit for human consumption. The Local Authority consequently applied for an order for the permanent closing of the well. The defence set up was that the well was now covered over, and communication cut off; but the Bench decided that this was not a permanent closing, and gave the order applied for. An appeal is to be made against this decision.



**"The Marine Store Dealer."**—The Kensington Vestry has received a letter from the Metropolitan Board of Works in reply to a communication from the Vestry—already noticed in these pages—requesting the Board to consider as to the desirability of the business of a "marine store dealer," who took in putrid animal matter, being declared an offensive business under the provisions of the Metropolis Slaughterhouses Act. The central authority points out that the businesses to which the Act referred included processes of manufacture, and it did not appear to the Board that the mere collection of a mass of refuse matter into one place was a "business" within the meaning of the third section of the Act. We are glad to add, the Board did not stop here, but went on to advise that such houses as the one in question come under the Nuisances Removal Acts, which were intended to apply to like cases.

**Churion.**—By the law a penalty of £5 may be imposed on any householder who refuses to have his dust removed by the dustman; but, according to our experience, the difficulty is to get the dustman to come and empty the dustbin: the householder is willing enough to let it go.

**The New Diseases Prevention (Metropolis) Act.**—One of our daily contemporaries says that the passing of this Act is the subject of considerable agitation and dissatisfaction, in consequence of the additional powers it confers upon the Local Government and Metropolitan Asylums Boards in respect to the provision of hospital accommodation, and the isolation and treatment of persons suffering from cholera and infectious diseases. The inhabitants of Camberwell are prominent in their protest against the Act, believing great injustice will be done to the parish at large if, in the event of an outbreak of cholera in the metropolis, the Asylums Board should use the small-pox hospital in the Old Kent-road for the reception of patients from all parts of the metropolis, as they are empowered to do under the provisions of the new Act. It is urged that as a small-pox hospital the establishment has had a very prejudicial effect upon the value of the property immediately surrounding it.

**Apropos of Coroners' Juries.**—Mr. Commissioner Kerr remarked the other day that "a jury is at all times the most incompetent tribunal known to the law of England."

**Hygiene.**—Yes; chemical experts have estimated that the cost of London's winter smoke and fog is £5,000,000 annually. That is to say, constituents of coal to this value escape unconsumed, and assist in forming the sooty vapour.

**Death-rate, South Hornsey.**—Dr. Jackman, Medical Officer of Health for the South Hornsey Local Board district, lately reported to the Board a largely increased death-rate. In one road it was in the proportion of one death to every four houses, and in another road even higher. He recommended that a house-to-house visitation should be ordered, and other measures adopted to improve such an unsatisfactory state of things; and the General Purposes Committee were instructed to carry out his recommendations.

**A Gastronomic Novelty.**—An evening contemporary informs the public that it is now stated that the flesh of the whale is both nutritious and palatable. Large quantities of it are eaten every fishing season by the men engaged in the capture of the fish, but still larger quantities are wasted. A Norwegian speculator was struck with the fact that some of the immense mass of food thus annually thrown away might be profitably preserved and utilised for consumption on shore. Acting on this idea, he arranged with several whaling captains and two meat-preserving firms, and recently he gave a dinner by which, he believes, he has demonstrated that whale flesh may be cooked in various ways, and that it forms a delicious as well as a wholesome article of diet. Some parts of the fish supply materials for an excellent imitation of turtle soup, others resemble beef, and others are almost as white and quite as tender as chicken. The meat can be sold for about half the price of our colonial tinned beef.

**The London Hospital and the Mile End Old Town Guardians.**—A letter from the Hospital, charging the Board with 2s. 6d. incident to an operation made at the Hospital on the eye of one of the inmates of their workhouse, was discussed at the last meeting of the Board. It appeared that the patient in question had taken his discharge from the infirmary, believing that the operation would be better performed at the Hospital. A question was thus opened as to whether or not the guardians were liable for the charge made by the Hospital. It was thought that the matter involved an important point, and it was decided to refer it to the Medical Committee.

**A Morgue at Rome.**—It has been decided by the Municipality of Rome to construct, upon the model of the establishment in Paris, a morgue, or deadhouse, for the reception of the bodies of persons found dead in public places, in order to facilitate their identification.

**A Fatality from Drinking Soda-Water.**—A clerk at the Northampton Gas Works, before leaving the works a few days since, being thirsty, drank a quantity of soda-water from a bottle, and was taken ill and conveyed home. He continued ill for twenty-six hours and then expired. A post-mortem examination of the body disclosed acute inflammation of the bowels, the cause of which was found in a small opening in the intestine, close to the stomach, at the side of an old ulcer which had been covered by a thin membrane, and had, it was supposed, given way under the distension caused by the soda-water. The coroner's jury returned the verdict, "Died from natural causes."

**The Dundee Royal Lunatic Asylum.**—The directors have decided, for the purpose of devising means to relieve the institution in its present embarrassed condition, that an appeal be made to the public, both for donations and applications for debentures, to be secured by way of bond over the Asylum property. A debt of £50,000 was secured over the properties of the old and the new Asylums, and, in addition, there are floating debts unsecured of fully £10,000.

**Official Solicitude.**—The Local Government Board, in assenting to the proposal of the Leicester Board of Guardians to provide a fish dinner for the inmates of the workhouse every alternate Tuesday, impressed upon the Guardians the necessity of taking suitable precautions to prevent the children from swallowing the fish-bones!

**Imprisonment not a Deterrent.**—A woman, a milk-seller and butcher at Hanley, on being convicted of having unwholesome meat in her possession, and fined £10, gave notice of appeal. Two days afterwards she abandoned the appeal, and, in default of paying the amercement, was committed to prison for two months. The defendant was only recently liberated from prison, convicted of being concerned in the illicit manufacture of whisky.

**Female Suicides, Berlin.**—The *Times* correspondent, writing on the 22nd ult., says, *à propos* of the numerous female suicides of late in London, it may be mentioned that within the last few days the morgue in Berlin has received the bodies of no fewer than six young women who had all poisoned themselves in consequence of loss of character.

**Worthy of Observation.**—The British Consul at Bordeaux, in his last report, states:—"Low-priced genuine Bordeaux wines must be regarded as non-existing. If the well-known Bordeaux wines are advertised for sale at the same prices as used to be charged ten or fifteen years ago, or in times of exceptional abundance, such wines are not the growth of the vineyard under the name of which they are offered for sale. The prices of the commonest class of Médoc wines (*vin ordinaire*) have increased 75 to 100 per cent. during the last decade. To buy pure genuine Médoc, or other well-known wines of this district, a far higher price must be paid for them than has been obtained for some years. The quantity of adulterated and falsified (so called) 'Bordeaux wine' exported at present annually is very considerable."

**A Hint from Philadelphia.**—The Chief Commissioner of Highways in this city, in an appeal to the public, says:—"For the purpose of preserving the good sanitary condition in all sections of the city, it will be necessary for citizens to aid in preserving the cleanliness of the highways as well as their own premises, by daily sweeping their gutters, courts, alleys, and all surface water courses, and collecting vegetable and animal matter for the garbageman to remove."

**An Outcome of the Action of Dobbs v. The Grand Junction Waterworks Company.**—The Camberwell Vestry have instructed their Law and Parliamentary Committee to inquire into the question of the water companies' charges in the parish.

#### COMMUNICATIONS have been received from—

THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE SANITARY COMMISSIONER OF THE PUNJAB, Lahore; THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE ADMIRALTY, London; Dr. MANNING, New South Wales; Dr. HEBERSTANZ, Vienna; Lord E. FITZMAURICE, London; THE MILITARY SECRETARY OF THE INDIA OFFICE, London; Dr. R. BOUSTEAD, Pitlochry; THE WARDEN OF THE LONDON HOSPITAL MEDICAL SCHOOL, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Mr. J. CHATTO, London; Dr. J. W. MOORE, Dublin; Dr. H. SONSINO, Cairo; Dr. BALTHAZAR FOSTER, Birmingham; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. J. H. JOHNSON, Lincoln's-inn-fields; Mr. JAMES DEATH, London; Dr. H. SUTHERLAND, London; Dr. W. H. PEARSE, Plymouth; Messrs. MACLACHLAN and STEWART, Edinburgh.

#### BOOKS, ETC., RECEIVED—

A Review of the Scientific Progress of Dental Surgery, by C. Spence Bate, F.R.S.—Notes on Diphtheria, by Dr. Eade—Nineteenth Report of the Trustees of the City Hospital, Boston—The Next Step for the Medical Profession of the United States, by D. B. St. John Roosa, M.D., LL.D.—The Amount of Protection afforded by Vaccination, by Hy. Tomkins, M.D., B.Sc.—Annual Report of the Borough of Huddersfield for the Year 1882—The Outbreak of Cholera in Egypt, by G. V. N.—Diagram of Pathogenic Organisms, etc.—The New Sydenham Society's Lexicon, by Henry Power, M.B., and Leonard W. Sedgwick, M.D.—Illustrated Medicine and Surgery, vol. ii., No. 3—The Diseases of the Nervous System, by James Ross, M.D., LL.D., vols. i. and ii.—Diseases of Women, by R. J. Nunn, M.D., Savannah—The Life and Work of St. Paul, by F. W. Farrar, D.D.—The Prophylactic Power of Copper in Epidemic Cholera, by Arthur De Noé Walker, M.D.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Ciencias Médicas—Sunderland Daily Echo, August 21—Revue D'Hygiène—Staffordshire Sentinel, August 23—Collective Investigation Record—Indian Medical Gazette—New York Medical Journal—Friendly Greetings—Boy's Own Paper—Sunday at Home—Girl's Own Paper—Leisure Hour—Students' Journal and Hospital Gazette—Polyclinic—Society—Maryland Medical Journal, August 11 and 18—Ophthalmic Review.



## LECTURES ON INSANITY.

Delivered at the Westminster Hospital, June, 1883.

By HENRY SUTHERLAND, M.D.,

Physician to Otto House and Blacklands House Lunatic Asylums, etc.

## LECTURE I.

## THE DEFINITION, CLASSIFICATION, AND CAUSES OF INSANITY.

GENTLEMEN,—In commencing this short course of lectures on Mental Diseases, I shall state, as I have done on previous occasions, that the remarks I shall make in this room are intended to be of a really practical character, and of a kind to afford you assistance in the ordinary labours of your medical career.

I shall therefore avoid all theoretical ground, and endeavour to lay before you as clearly as possible the symptoms of those diseases of the mind which you will actually be called upon to treat in after life.

Whether you undertake the duties of superintendent of a public asylum, of private asylum proprietor, of family doctor, of physician to a workhouse or any similar institution; whether you reside in the house of a wealthy Chancery patient, or travel abroad in his company; whether you are in the Army or the Navy, whether you are at sea or on shore,—you can never, as medical men, be free from the chance of being some day called upon to treat both medically and legally a person of unsound mind.

In the first place, then, let us inquire, What is insanity? The answer to this question is more difficult than might at first sight be supposed. I cannot commence these lectures more profitably than by warning you never to attempt to give a definition of insanity, more especially if you are placed in a position in which you may be called to account for having done so, as, for instance, in the witness-box in a court of justice.

Perhaps the best definition of insanity that has yet been attempted is that of Dr. Maudsley, who tells us it is “disorder of brain producing disorder of mind.” But if we examine this definition we find that it expresses both too much and too little. Can we always prove that disorder of brain is present, as proved by post-mortem examination? Undoubtedly not. In many cases where the symptoms have been most violent and most acute during life, the brain is found to be perfectly healthy after death. Again, can we say that disorder of mind is peculiar to insanity and to no other disease? We must answer this question also in the negative, as we know that alcoholic excess, blood-poisoning, the poison of fever, a blow on the head, sunstroke, syncope, and all agencies producing coma or other minor disturbances of the cerebral circulation, bring about precisely the same mental symptoms as are met with in insanity. So that in this last section, as well as in the first, the definition breaks down.

A description of insanity, although of more practical value than a definition, is open, but in a less degree, to the same objections, namely, that it expresses either too much or too little. Nevertheless, that we may have some starting-point in common, I shall endeavour to give a description of insanity, as the subject may be new to some of you.

Insanity may be described as being a disorder of the mind, generally supposed to be due to disorder of the brain, and characterised by peculiar acts, feelings, and delusions, no one of which, however eccentric, would alone constitute insanity.

With regard to insane acts, the motive for performing the act should always be considered.

With regard to insane feelings, the extent to which the feeling influences the patient relatively to the cause must be estimated.

And with regard to delusions, careful inquiry should always be made as to whether or no there are any real grounds for such delusions.

## CLASSIFICATION.

In all professions certain technical terms are employed which express a great deal in the shortest possible way, and which bring to the mind of the skilled workman a great many facts condensed into one word. As might be expected,

the study of insanity necessitates the use of some such technical terms, which, however, have been multiplied to an inordinate degree by the pedantry of those who wished it to be thought they knew more of the subject than other people.

Briefly speaking, it may be said that the numerous classifications (forty or fifty) which have appeared from time to time have been founded upon one of the three following principles:—

I. According to the Functions of Mind supposed to be affected. Examples: Intellectual Insanity, Emotional Insanity.

II. According to the Mental Symptoms. Examples: Mania, Melancholia.

III. According to the Bodily Diseases or conditions associated with the mental disturbance.

At present we shall deal only with the last two modes of classification.

The second one (according to the mental symptoms) is the one adopted by the compilers of the Nomenclature of Diseases drawn up by a Committee of the Royal College of Physicians; and is, moreover, the only classification recognised by the Commissioners in Lunacy. It includes nine forms, the details of which will be given later on. They are:

1. Mania.
2. Melancholia.
3. Monomania.
4. Dementia.
5. Paralysis of the Insane. (Synonym, General Paralysis.)
6. Idiocy (Congenital).
7. Imbecility (Congenital).
8. Cretinism.
9. Puerperal Mania.

These are defined and subdivided as follows:—

## 1. Mania.

Definition: Disorder of the Intellect with Excitement.

- a. Acute Mania.
- b. Chronic Mania.

## 2. Melancholia.

Definition: Disorder of the Intellect with Depression, often with suicidal tendency.

3. Note: Cases of so-called *Monomania* are to be classed under Chronic Mania or Melancholia according to their character.

## 4. Dementia.

Definition: Disorder of the Intellect characterised by Loss or Feebleness of the Mental Faculties.

- a. Acute Dementia.
- b. Chronic Dementia.

5. Paralysis of the Insane.  
(Synonym; General Paralysis.)

## 6. Idiocy (Congenital).

## 7. Imbecility (Congenital).

## 8. Cretinism.

(This is placed next Rickets and Scrofula in the Nomenclature.) Definition: A condition of Imperfect Development and Deformity of the whole body, especially of the head, occurring in the valleys of certain mountainous districts, and attended by feebleness or absence of the mental faculties and special senses, and often associated with goitre. Varieties:

a. Complete Cretinism. (Synonym, Incurable Cretinism.) Definition: Complete Cretinism, characterised by idiocy, deaf-dumbness, deficiency of general sensibility, and absence of the reproductive power.

b. Incomplete Cretinism. (Synonym, Curable Cretinism.) Definition: A degree of Cretinism in which the mental faculties, though limited, are capable of development, the head is moderately well formed and erect, the special senses, the faculty of speech, and the reproductive powers are present.

## 9. Puerperal Mania.

- a. Connected with Parturition.
- b. Connected with Lactation.

Without making any comment on this classification, I now pass on to give one more system of nomenclature—that proposed by the late Dr. Skae. This has given rise to much controversy, but as it is the one recognised by the Medico-Psychological Association, in the competition for the Hack



Take Prize, it is necessary that you should be acquainted at least with its outlines.

It is founded chiefly on the third principle mentioned previously, that is, according to the bodily diseases or conditions associated with the mental disturbance.

It includes thirty-five forms. They are:

Idiocy	} Intellectual.	Podagrous Insanity.
Imbecility	} Moral.	Syphilitic Insanity.
Insanity with Epilepsy.		Delirium Tremens.
Insanity of Pubescence.		Dipsomania.
Insanity of Masturbation.		Insanity of Alcoholism.
Hysterical Insanity.		Malarious Insanity.
Amenorrhoeal Insanity.		Pellagrous Insanity.
Post-connubial Insanity.		Post-febrile Insanity.
Puerperal Insanity.		Insanity of Oxaluria.
Insanity of Lactation.		Anæmic Insanity.
Insanity of Pregnancy.		Choreic Insanity.
Climacteric Insanity.		General Paralysis with In-
Ovarian Insanity.		sanity.
Hypochondriacal Insanity.		Insanity from Brain Disease.
Senile Insanity.		Hereditary Insanity of Ado-
Phthisical Insanity.		lescence.
Metastatic Insanity.		Idiopathic } Sthenic.
Traumatic Insanity.		Insanity. } Asthenic.
Rheumatic Insanity.		

In my humble opinion the classification of diseases of the mind should be as simple as possible, and should be founded chiefly upon prognosis in insanity, the diagnosis and treatment being usually easy as compared with the prognosis, which is moreover the most important of these three elements of mental derangement in many cases.

Whatever classification may be adopted by any author, it is evident that there are four states of mind, and four only, which deviate from the normal standard. And I should divide my second division of mental diseases, if necessary, under one of these four heads.

First to mention my classification, arranged in the order of the various ages at which the individual is likely to suffer from them, I would have these divisions:—(1), Idiocy; (2), Simple Insanity; (3), General Paralysis; (4), Epileptic Insanity.

Simple Insanity might, if necessary, be subdivided into—*a.* Simple Insanity with Excitement (equivalent to Mania); *b.* Simple Insanity with Depression (Melancholia); *c.* Simple Insanity with Exaltation (Monomania?); *d.* Simple Insanity with Fatuity (Dementia).

It will be observed that, roughly speaking, the second of these divisions, Simple Insanity, is the one in which the largest proportion of cases are likely to get well, as compared with any other three divisions.

Epileptic Insanity is next most favourable as regards the outlook, many cases of this form recovering if the first attack takes place at puberty, although the termination of this disorder is almost always fatal if it occur after middle age. The proportion of idiots, too, who are sufficiently restored to mental health to enable them to earn a livelihood is remarkably small, and general paralysis is incurable. Thus it will be seen that this simple attempt at classification is founded upon the prognosis in cases of mental disease. Let us first consider

#### *Simple Insanity.*

It may be objected that this division is too comprehensive, but who is there amongst us who can tell that a patient who is melancholic to-day may not be maniacal to-morrow, and demented the next day? Therefore, it is surely a more stable term to apply to a case than is the word mania, melancholia, or dementia.

Idiocy, to our thinking, is a good term. The College of Physicians places the word congenital after idiocy and imbecility. But this is wrong. Dr. Langdon Down has shown me many examples of idiocy which were not congenital, but were the result of scarlatina, accident, or other causes in early childhood.

General Paralysis undoubtedly stands by itself as a form of mental disease. Attempts have been made at different times to divide it into varieties; but, in our opinion, such a course is to be deprecated as likely to lead to confusion in the minds of the profession, and to encourage the relations of the victims of this form to indulge in false hopes of the patient's recovery.

Epileptic Insanity we would simply place by itself as a matter of convenience to asylum superintendents. Such patients require special kinds of treatment and appliances. They are usually more dangerous than those suffering from insanity not complicated with this nervous disorder, and in many asylums they are treated in wards by themselves. The prognosis is also very unfavourable in epileptic insanity, unless it occur either as convulsions at dentition, with mental aberration, or in connexion with the trials of puberty.

#### THE CAUSES OF INSANITY.

Most frequently insanity is produced by several causes, acting at different periods upon the individual previous to the attack. To say that one influence has caused the attack is almost always erroneous, although it is true that one cause generally stands forward more prominently than the rest in the history of the case. Causes have been divided into predisposing and exciting. They have also been divided into physical, moral, and mixed. The terms need no explanation.

1. Those affecting the human race generally, or particular classes. 2. Those affecting the individual.

A few of these causes may be here alluded to, although their name is legion, and it is impossible to enumerate them exhaustively.

*Season*: Hot weather undoubtedly is a potent cause of insanity, the month of June being the one in which the admissions to asylums are most numerous. *Civilisation*: Humboldt has stated that there is no insanity amongst savages. Some authors believe that modern civilisation has increased it. But the truth of the matter is that it is the abuse and not the use of the advantages of civilisation which has added to the admissions to our asylums. *Impure Water*: The presence of lime and magnesia in water is an undoubted cause of cretinism. *Poverty*: Dr. Thurnam has shown us in his statistics that poverty is a most powerful agent in the production of insanity. The five counties which possess the greatest number of paupers in proportion to the population are—(1) Wiltshire, (2) Dorset, (3) Oxford, (4) Gloucester, and (5) Berks. The five counties which have the greatest number of insane paupers in proportion to the total paupers are—(1) Wiltshire, (2) Gloucester, (3) Oxford, (4) Berks, and (5) Dorset. *Age*: Insanity (exclusive of idiocy) is rare before ten, more frequent between ten and twenty, and most common between twenty-five and forty; but the admissions to asylums, if re-admissions are also included, have their maximum between the ages of forty and fifty. *Sex*: The proportions of men and women attacked differs in different places. More males become insane than females in England; more females than males in France. But more females are attacked than males in London, and more males than females in Paris. *Occupation*: The effects of occupation are difficult to estimate. It may be briefly said that head-workers are more liable to insanity than are hand-workers. Overwork alone is seldom a cause unless other influences are connected with it.

The causes affecting the individual may be conveniently divided into those occurring—I. Before birth; II. At birth; III. In infancy; IV. In youth; V. In adult life; VI. In old age.

#### I.—Hereditary Influence.

Out of fourteen authors who have given statistics on this point, Parchappe states that 15 per cent. of cases are caused by hereditary taint. Burrows puts it as high as 84. Bucknill agrees with Parchappe, and places it at 15. Thurnam, the most careful of statisticians, gives 30 per cent. as the figure. The number of persons going mad whose ancestors have suffered from hereditary insanity or other nervous diseases should not, in my opinion, be placed at less than 50 per cent.; 75 per cent. would possibly be nearer the mark. Baillarger tells us that the insanity of the mother is more likely to affect the children than is the insanity of the father. (a) He also believes that the mother's insanity is most likely to affect the girls of the family, and that the father's is most likely to affect the boys. Heredity may be "direct" or "collateral." Direct heredity refers backwards to lineal ancestors only—that is, to parents and grandparents. Collateral refers to the insanity of one's own uncle, own aunt, brother, or sister. The insanity of cousins is not included under the head of collateral heredity, as the introduction

(a) See the Commissioners' tables, mentioned later on.



of fresh blood by marriage may have caused the taint. Epilepsy and other nervous disorders in the parents often appear as insanity in the children.

The connexion of phthisis with insanity in the same family is an undisputed fact. Syphilis and drunkenness in the parents are often the causes of idiocy in the child or of insanity in the adult offspring.

Any physical injury or moral shock to the pregnant mother may produce idiocy in the infant.

## II.—Causes Operating at Birth.

These may be briefly summed up under these two heads: 1. A too small pelvis on the part of the mother. 2. A too large head on the part of the child. Either of these two impediments to natural labour, or, indeed, any element by which the process of parturition is unusually prolonged, are very frequent causes of idiocy in the offspring. Hence late marriages on the part of the female should be discouraged if the mental health of the next generation is to be considered.

In exceptional cases an injudicious use of the forceps, causing injury to the head of the child, has been known to produce asymmetry of the head, and consequent idiocy.

## III.—Causes Operating in Infancy.

All ignorant treatment of the ailments of childhood, as by drugging with opium and spirits, are potent causes of idiocy or the insanity of early life. Injuries to the head are equally injurious. Idiocy also sometimes follows the exanthemata, whooping-cough, or convulsions at dentition; and it is said that the milk of an insane, anæmic, or syphilitic wet-nurse may also affect the mental health of the child.

## IV.—Causes Operating in Youth.

Any brutality on the part of parents or relations, and, on the contrary, any over-indulgence during childhood, may result in mental disease in adult life. The insane temperament is a very usual form of mental disorder in those who have been "spoilt" by well-meaning parents in early life. The advent of puberty is an event which not unfrequently causes alienation in girls. The epileptic insanity found in both sexes at this age, contrary to that of advanced life, is a form of disorder which gives a large percentage of recoveries. Masturbation, in both sexes, is said to produce insanity, but it is difficult to distinguish between premonitory symptoms and causes in many of these cases.

## V.—Causes Operating in Adult Life.

Sexual excess in the male or the female, amongst both the married and the single, is perhaps, next to heredity, the most potent cause of insanity. Under this head also may be included the troubles of the female at the periods of menstruation, pregnancy, parturition, lactation, and the change of life, as well as the disorders attending the catamenial function, and all other diseases of the uterus and ovaries.

Next may be placed alcoholic excess; and it is said the abuse of tobacco, opium, bhang, and other sedatives produces a small percentage of cases of insanity.

Injuries and blows to the head are also dangerous to mental health, the prognosis in such cases being more favourable if the symptoms come on suddenly than if they are insidious in their approach. Unnatural sexual desire is a frequent concomitant of insanity produced by these causes.

Mental disease also frequently follows fevers, ague, gout, rheumatism, erysipelas, and other diseases. It is sometimes "metastatic," which means that it results from the suppression of any discharge which has existed for any length of time, such as that from an old ulcer, the blood from chronic piles, or from a cessation of the catamenia at the climacteric.

Insanity has also a subtle connexion with other nervous disorders, more especially with epilepsy, hysteria, chorea, and the various forms of paralysis.

Moral influences undoubtedly play their part in its production, such as pecuniary losses, religious anxiety, overwork, and emotional excitement; the French nation, however, contributing a larger number of cases attributable to this last element than we do on this side of the Channel.

## VI.—Causes Operating in Old Age.

Simple decay from old age may produce complete loss of the mental faculties. Such cases are classed under the head

of Senile Dementia, a more important form of insanity than might at first sight be supposed. It is at this age and in this state of mind that old men are induced by designing people to make wills and execute documents by which their nearest relatives are excluded from the reversionary interest of property they have all their lives expected to enjoy. This form of insanity is not hereditary, and the children of a parent whose intellect has yielded to simple old age need not fear that they inherit any tendency to mental alienation.

The results of apoplexy, epilepsy, and other disorders in old age may also incapacitate a man from undertaking the management of himself or his affairs.

These remarks upon the etiology of insanity cannot be brought to a close more appropriately than by bringing before you the following table of causes drawn up by the Commissioners in Lunacy in their Report for 1878.

*Table of Percentages of Causes of Insanity (from the Thirty-third Report of the Commissioners in Lunacy, 1879).*

	Male.	Female.	Total.
<b>Physical—</b>			
Unknown ... ..	22.9	22.6	22.8
Hereditary influence ... ..	16.3	18.8	17.5
*Intemperance in drink ... ..	21.3	7.9	14.6
Previous attacks... ..	11.1	14.8	13.0
Other bodily diseases or disorders ... ..	9.9	10.2	10.1
Congenital defect ascertained... ..	5.9	3.7	4.8
Old age ... ..	3.5	4.1	3.8
Parturition and the puerperal state ... ..	...	7.0	3.5
Accident or injury ... ..	5.0	1.1	3.1
Change of life ... ..	...	3.7	1.8
Other ascertained causes ... ..	2.7	.6	1.6
Privation and starvation ... ..	1.5	1.6	1.5
Uterine and ovarian disorders... ..	...	2.8	1.4
Sunstroke... ..	2.4	.2	1.3
Self-abuse (sexual) ... ..	2.3	.2	1.2
*Intemperance (sexual) ... ..	1.4	.8	1.1
Over-exertion ... ..	.9	.8	.9
Lactation... ..	...	1.9	.9
Fevers ... ..	.8	.7	.7
Venereal disease... ..	.9	.4	.6
Pregnancy ... ..	...	1.1	.5
Puberty ... ..	.1	.6	.3
<b>Moral—</b>			
Domestic trouble ... ..	3.8	9.8	6.8
Mental anxiety and worry ... ..	6.8	5.0	5.9
Adverse circumstances... ..	7.2	3.2	5.2
Religious excitement ... ..	2.3	2.4	2.4
Love affairs (including seduction) ... ..	.6	3.0	1.8
Fright and nervous shock ... ..	1.2	2.0	1.6
* NOTE.—The proportion of cases of general paralysis produced by—			
Intemperance in drink is ... ..	25.8	15.0	23.7
And by Sexual intemperance ... ..	4.8	4.5	4.8

The attention of the student is directed to the proportion of cases of all forms of insanity caused by intemperance in drink and sexual excess as compared with the percentage to cases of general paralysis produced by the same causes. This will be again alluded to under the head of General Paralysis of the Insane.

He may also draw useful conclusions from the figures placed against "hereditary influence," "previous attacks," "accident or injury," and "love affairs," as showing the different liability of the sexes to the influence of certain causes producing insanity.

**TO STOP HICCOUGH.**—Dr. Shaw, of Cincinnati, states that he has often succeeded in this by following Dr. Kinnaid's procedure. "His method was to place the tips of the fingers of both hands in the position of complete supination against the abdominal muscles, at the lower and outer junctions of the epigastric with the hypochondriac regions. With the finger-tips in this position, firm and very gradual pressure is made backward and upward against the diaphragm. This pressure should be continued for some little time after the diaphragm has ceased its spasmodic contractions, when the fingers should be very gradually withdrawn."—*New York Med. Record*, July 21.



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## THE HUNTERIAN SOCIETY

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(Concluded from page 228.)

THE history of medicine shows that before the perfecting of anatomy and physiology, chemistry and physics, the science of medicine was largely composed of unverified hypotheses, false principles, and pseudo-science. Galen could write an elaborate treatise on the pulse, full of the most subtle distinctions, giving twenty-seven varieties of pulse as to fulness, and twenty-seven as to rapidity, without acquaintance with the circulation of the blood or the true cause of the phenomenon. To a certain extent, doubtless, his distinctions were practically useful, and enabled him to interpret the "prognostics" or the course of diseases aright, but scarcely can such a treatise be termed scientific. A scientific account of the pulse could not be written until the anatomy of the heart and arteries was thoroughly worked out; until Harvey had discovered and placed on the immovable foundation of anatomy, reason, and experiment the circulation of the blood; until physiology had taught how the heart and arteries were regulated and controlled by nerves and ganglia; until pathology had displayed the various diseased conditions of the valves and the cavities of the heart and the coats of the arteries by which the pulse might be modified—and not even then, perhaps, until the stethoscope could reveal to us the heart actually at work, regular or intermittent, embarrassed or free, hypertrophied or weakened, sound or degenerated; and until physiology, again and ever by experiment, had interpreted the causes of the sounds of the heart and described the phenomena of blood-pressure and arterial tension, and given us the sphygmograph as a graphic method of registering what the touch could but imperfectly appreciate. As it has been with the heart and arteries, so it has been with the diseases of all the organs of the body. The practitioner might meet with and recognise different varieties of derangement of individual organs by the careful exercise of his unaided senses, and, with little help from science, find out a good deal concerning their course and issue, and even arrive at a rational method of treatment, but not until the present century, and in years very recent, has it been possible for him to understand them scientifically. Not until the minute anatomy of the liver and kidneys was unfolded, until physiology had described their functions, and chemistry had analysed their products,—not until pathology, which is the physiology of disease, with the aid of chemistry and the microscope, had reared its fabric on the foundation of the knowledge furnished by anatomy and physiology, could the clinical physician approach these diseases from a scientific standpoint. Do not let it be supposed that, whilst insisting on the value of the services rendered by anatomy and physiology to medicine, I ignore the aid rendered by medicine to anatomy and physiology. Were I inclined to do so, the name of my distinguished predecessor would remind me that, in regard to the localisation of the functions of the brain and spinal cord, he had, by observation of the phenomena of individual cases, and comparison of the symptoms with the parts of the nervous system found affected after death, anticipated some of the observations made by experiment on healthy living animals. Disease is of the nature of experiment, as it shows the effects both of irritation and of deprivation of parts of the body, and therefore physiology and pathology shed a combined light upon function, confirming and strengthening one another. All scientific medical knowledge is obtained, as in other sciences, by the accurate observation of phenomena, the collection of a large number of facts by different observers, the comparison of these facts with one another for the recognition of those features which are common to the whole, and those which are accidental or peculiar. This method has to be applied to every one of the countless ills of humanity before safe general conclusions or principles can be deduced: and if medicine cannot boast

of the discovery of any universal law like the law of gravitation, more limited generalisations have been or are in process of being reached, which may possibly be comparable to the discoveries of Kepler, that the planets move in elliptical orbits, having the sun for their common focus; that the planets describe equal areas in equal times; and that the squares of the periodic times of the planets are as the cubes of their mean distance from the sun,—out of which Newton was able to evolve the law of gravitation. Among general discoveries stamping medicine as a science are the elucidation of the whole class of parasitic diseases, with the migrations and changes of the parasites themselves, the protection afforded by vaccination and its later extension by Pasteur, and the relations of micro-organisms or microbes (the bacterium, bacillus, micrococcus, and spirillum) to fevers and other infectious diseases.

So far, therefore, as the natural history of disease is concerned, the materials appear to be abundant to prove that medicine is a science. Its progress may have been slow, but it has kept pace with the progress of civilisation, and has at once made use of every advance in the sciences on which it is based and in physical science generally. The science of modern medicine had to wait for its development for the subsidence of the waves of barbarism which swept away the civilisation of Rome, for the abolition of the feudal system which made history but the record of "battle and murder and sudden death," and for the restoration of some of the ancient knowledge through the agency of the Crusades, which helped to spread the Arabian literature (scarcely an equivalent for the burning of the Alexandrian Library), and through the capture of Constantinople, which insured the return of precious manuscripts to Italy, where the lamp of medical science was first relumed. It had to wait for the gradual destruction of the belief in supernatural agencies as the cause of disease, for the overthrow of superstition, mysticism, and astrology, and reliance upon magic and spiritual influences as the means of cure. It had to wait for the divorce of medicine from the church, the separation of its practitioners from barbers, blacksmiths, and grocers, for its constitution as a distinct calling, and for its elevation into a learned profession. It had to wait for the foundation of universities and colleges by the favour of Royalty, and the origin of academies, learned societies, and associations through the scientific ardour of the most enlightened members of the community. It had to wait for the emancipation of the human mind from the bondage of opinion and authority, largely effected by means of the reformation in religion, the concurrent diffusion of the art of printing, and the formation of public libraries and museums. It had to wait until chemistry had been freed from the swaddling clothes and emerged from the cradle of alchemy, and, having abandoned the infantile occupation of the search after the philosopher's stone, had entered upon the wonderful career of discovery, analysis, and synthesis which have lightened the darkness of the laboratory of the living body. It had to wait for the establishment of the practice of dissection of the human body, by which current errors could be corrected, and free and independent inquiry undertaken, for physiology to unfold by experiment and observation the laws of the healthy animal economy, and for pathological anatomy to reveal the structural alterations effected by disease. It had to wait for the abandonment of hypotheses and occult causes, and for the general acceptance and practice of the principles of the inductive philosophy. Curiously enough, the first man who shook the fabric reared by Galen was a man described by Zimmerman as "living like a hog, looking like a carter, and writing only when drunk," and who himself professed to have discovered the elixir vitæ. His full name was Philippus Aureolus Theophrastus Bombastes von Hohenheim, commonly known by the title of Paracelsus. Extravagant as were some of his own opinions, and intemperate as was his language and conduct, he very effectually disposed of the humours, the hot and cold diseases, and the multifarious remedies used in a single prescription. Assuming the air of a great reformer of medicine, and in imitation of Luther burning the Bull of Leo X. in 1520, Paracelsus commenced his Professorship of Physic and Surgery in the University of Basle by committing the works of Galen and Rhazes to the flames. Probably there never were two men more dissimilar than the mountebank Paracelsus, and the present refined and cultured President of the Clinical Society; and yet there are one or two



points of parallelism between their views. Thus we find Paracelsus, when inveighing against the humoral pathology, which had so long held sway in the profession, saying, "What you call humours are not diseases; that is the disease which makes these humours. How can a physician think to discover the disease in the humours, when the humours spring out of the disease? It is not the snow which makes the winter, but the winter the snow; for, although the snow is gone, the winter remains. You mistake the product of disease for disease itself." On the other hand, the President of the Clinical Society has uttered an eloquent protest against morbid anatomy and experimental pathology mistaking the structural changes found after death (which, I take it, is a description of solidism) for the disease itself. Dr. Clark observes—"But the true relation is not this; it is, in fact, the converse of it. For the structural change is not disease, it is not co-extensive with disease; and even in the cases where the alliance appears the closest, the statical or anatomical alteration is but one of other effects of physiological forces, which, acting under unphysiological conditions, constitutes by this new departure the essential and true disease. For disease in its primary condition and intimate nature is, in strict language, dynamic. It precedes, underlies, evolves, determines, embraces, transcends, and rules the anatomical state." In both epochs, the products of disease are mistaken for the disease itself; but I am not sure that in either the true nature of disease has been grasped, or is perfectly comprehensible from the descriptions of their authors. The disease of Paracelsus was an immaterial entity generated out of three co-efficients—salt, sulphur, and mercury; the disease of Dr. Clark is the dynamic offspring of physiological forces acting under unphysiological conditions, and seems in its nature to be nebulous and intangible. One great notion of Paracelsus was that of a threefold unity in nature, or mystic harmony with the Trinity in Unity. Man consisted of body, soul, and spirit; the world of three elements—water, air, and earth; and disease, as already mentioned, was an immaterial entity generated out of three co-efficients—salt, sulphur, and mercury. One of the first lectures which I had the pleasure of listening to at the London Hospital Medical College was an introductory lecture by Dr. Andrew Clark, on Triune Man, composed of body, soul, and spirit; but here the parallel ends, for it is difficult to determine an affinity between his dynamic pathogenesis and the immaterial entity of Paracelsus, generated out of salt, sulphur, and mercury.

The thunders of Paracelsus were insufficient to overthrow the fabric which Galen had reared, for his system was as unsatisfactory and as speculative as that which it sought to replace. Before the reign of authority and mere speculative hypothesis could be brought to an end, a philosopher of learning and reputation was needed, who could analyse the errors and illusions to which the human mind is subject, expose the folly of founding systems on preconceived notions and assumption of axioms, and point the true way to the knowledge of the external world by accurate observation of natural phenomena, verification of facts, and interrogation of nature by experiment. Such a philosopher was Francis Bacon, the great expounder, though not the originator, of the inductive philosophy. Hippocrates had practised its principles; Aristotle had laid them down and followed them; and the Chancellor's namesake and predecessor, the celebrated Roger Bacon (Doctor Mirabilis), had pursued physical science in a kindred spirit. Bacon started with the aphorism that "man, the servant and interpreter of nature, does and understands so far as he may have observed respecting the order of nature in things or in his mind; and further, he has neither knowledge nor power." Man was to come as a little child to nature, conscious of his ignorance and anxious to be taught. The testimony of the senses was to be his guide. With regard to medicine, Bacon insisted on the necessity of employing all the powers of nature for the relief of the bodily ills of the human race, approved of experiments on the lower animals but not on living men, and insisted that the footsteps of disease and their devastation of the inward parts ought to be "exactly observed by multitudes of anatomies and the contributions of men's several experiences, and carefully set down both historically according to the appearances, and artificially with reference to the diseases and symptoms which result from them, in case where the anatomy is of a defunct patient, whereas now they are passed over slightly and in silence." Bacon is

extremely wroth against Galen, and seems to have been the originator of the bag-and-baggage policy—"Let him," he says, "then be dismissed and take along with him the whole train of his associates—these compensatory compilers from the Arabians who have shown such folly in their theories, and from their supine and jejune conjectures amass together such a heap of promises instead of real helps from vulgar remedies." He is also indignant at the idea of diseases being pronounced incurable. "A work," he says, "is wanting upon the cures of reputedly incurable diseases, that physicians of eminence and resolution may be excited and encouraged to pursue the matter so far as the nature of things will permit, since to pronounce diseases to be incurable is to exhibit ignorance and carelessness, as it were, by law, and screen ignorance from reproach." Lastly, Bacon points out the deficiency of physic in authentic, specific, positive remedies, and advocates the compilation of a work setting forth the approved and experienced medicines in particular diseases, with the careful collection of all well-established cures. Whilst Bacon was writing about the interrogation of nature by observation and experiment, for which he was himself unfitted, Harvey was putting his method independently into practice; and when Bacon died, Boyle, the father of experimental philosophy and the reformer of chemistry, arose to investigate natural phenomena in accordance with the methods of Bacon. By the application of the same principles Haller became the father of physiology. Rejecting metaphysical ideas, which were but the cloak of ignorance, and all mathematical and chemical theories, he set himself to ascertain general facts by observation, and to place the foundation of physiology on human and comparative anatomy and experiments on the lower animals. Of the other men who, by following, consciously or unconsciously, the principles of the Baconian philosophy and the method of Hippocrates, helped to rear the fabric of scientific medicine, time and space only permit reference to a few. There was Sydenham—*medicus in omne ævum nobilis*—who earned the title of the English Hippocrates. There was Cullen, who, avoiding the plan of Boerhaave of collecting the opinions of others, pursued the method of induction and generalisation, "disclaimed all hypotheses and theories not derived from facts, and made it his business to collect by actual observation the materials from which he might deduce his general principles." There was Bonet, the founder of pathological anatomy, followed by Manget, Valsalva, and Morgagni, whose chief work was translated by the revered founder of this Society, Dr. William Cooke. Jenner must not be passed over in silence, and with the pupil must be named the master (John Hunter), who wrote the aphorism which may be commended to the attention of our legislators—"If you check experiment you stop discovery,"—and who combined at once in the highest degree the power of collection and classification, the power of investigation, and the power of thought. His praise is in all the schools, in every place, in every time, on every tongue. Under the sanction of his honoured name we meet to contribute our mites to the treasury of knowledge and truth, steadfastly believing that medical science possesses in the future almost boundless possibilities of progressiveness, unlimited capacity for new observations and new discoveries which will be turned to the great end of all our labours—the use and advantage of man.

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A SINGULAR VARIETY OF CHARLATANISM.—We read in the *Union Médicale* that a mysterious kind of personage installed himself as a doctor in the most frequented part of the Faubourg Montmartre. Admission could only be gained to his presence after infinite questionings. His name was a foreign one, and all his servants were bound over to secrecy. His consultation-room was, in consequence of all this, besieged from morning to night, until at last the attention of the police was attracted. A *commissaire* called upon him and demanded an inspection of his diplomas, expecting to find him pale and trembling at the request. Nothing of the kind. The suspected practitioner, all smiles, opened a drawer of his bureau, and exhibited to his visitor documents which were perfectly authentic. "And now that you have quite assured yourself, M. Commissaire," said the doctor, "pray do not betray me; for if my patients only get to know that I am a mere Doctor of the Medical Faculty of Paris, I shall see no more of them."—*Presse Méd. Belge*.



# PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

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(Continued from page 234.)

## CHOLERA ASIATICA MALIGNA—Continued.

THE following data—most of which are recognised by many, if not by all, physicians of Indian experience—may be taken as applicable to our present threatened position in Europe. All of these conclusions are based upon many more facts than can be given here.

If a strong epidemic wave rises among us, its destructive effects will not be wholly avoidable. In India, good Hygiene is generally a great protective. English officers and merchants, their wives and children, are comparatively rarely attacked, their good Hygiene being their main safeguard; but, in two Indian epidemics, within my knowledge, the officers suffered greatly. So, in one of the worst small-pox visitations which I watched in Calcutta, persons whose faces were seamed by a previous attack fell victims.

Whatever treatment may be adopted, a very large percentage of those first attacked will probably die. It is a fact, noticed always and everywhere in India, that at the first outset of an epidemic, and when an endemic first sets in, the loss of life among those attacked is terrible, the disease having an intensity which, in a majority of cases, defies all treatment. Later, when the outbreak is on the decline, there is usually a strong tendency to recovery. This law in the disease has repeatedly led inexperienced practitioners into a very transparent mistake. One who has recently come to the country frequently makes this observation: "When cholera appeared, in February, I tried all the old remedies, but found them useless. Being almost in despair, in May, I gave Album Græcum in three-grain doses every quarter of an hour, and cured 60 per cent. of my patients!" The fallacy only becomes apparent, even to the discoverer himself, when he comes to employ his specific at the commencement of the next outbreak. This law receives some indirect illustration from the fact, given by Dr. Macpherson, that, in an analysis of 1354 cases of cholera in Europeans in Calcutta, "the rate of mortality during the hot or cholera months was 56·2 per cent., and 45·2 during the others."

The following data, also given by Macpherson, are still more explicit:—In the outbreak at Kurrachee, in Scinde, of the first 100 admissions 79 died; second, 66; third, 50; fourth, 40.

In Cholera outbreaks, he who enters the Epidemic or Endemic Area encounters special danger. In India, no one can be considered safe on first entering a cholera-impested area. Thus, when I looked around my cholera ward, the native patients generally had much the appearance of Calcutta people; but, on inquiry, it was almost always found that they were outsiders who had not been many days in the city. It was hoped that the introduction of an excellent water-supply would put an end to this, but it did not—in my time. All travellers, Europeans and natives, from Up Country incur this liability. It is a common saying, among natives, that everyone who enters Calcutta is liable to bowel complaint; (a) and I am confident that no one who arrives in Calcutta from Europe can regard himself as being perfectly free from danger of an attack until he has passed through a cholera season. The Europeans who die of this disease in Calcutta are mostly sailors, lately arrived in port, and other new-comers. Hence the necessity for moderate care in living during the early months of residence in India.

The works of Dr. John Macpherson, the "Annals of Cholera" and "Cholera in its Home," which may, at this crisis, be studied throughout with the greatest interest and profit by every medical man in this country, contain important illustrations of this law, among the most striking of which is the following (b):—

(a) So also it was observed by a medical officer, long resident there previous to the Mutiny—I think Dr. John Balfour,—that the water of Delhi was so bad that nearly every European who went there was attacked with some disorder of the bowels.

(b) "Cholera in its Home," page 36.

"A first-class ship arrived in the Hooghly in the early days of January. There was no cholera in the vessel coming up the river, or during the month after its arrival. There was very little in the city of Calcutta." [Still, there is generally a brief cholera season at about that time in Calcutta.—N. C.] "A party, consisting of a gentleman and his wife, a European nurse, a young lady, and two children, landed from the ship in perfect health on a Sunday. They went to a house in which there had been no cholera for several years—not, however, in a good situation (Circular-row, opposite to Elysium-row), and small for the party that was received in it. After their arrival, there was a total of eight adults and ten children in the house. Of these, two adults and three children were residents, two adults and three children were arrivals from up-country, and the rest were the new arrivals. Five of the new arrivals occupied a small room on the upper flat—that is, three females and two children,—they had one bathing-room off it. The rest of the occupants of the house were partly upstairs and partly down. The nurse and children appear to have had slight diarrhoea during the week, and the young lady ate on Saturday some indigestible food. The children, having slight diarrhoea, got a dose of Gregory's powder from the mother on Sunday morning. I was sent for at 8 p.m. of that day, and found one child far gone in cholera; she died at half-past twelve at night. The other child was in the earlier stage of the disease. About midnight the father had an attack, which was checked; and, towards morning, the nurse was seized. She was sent to the General Hospital close by at 7 a.m., and died at 7 p.m. All who could possibly leave the house (all but its resident occupants) were ordered out of the house. The young lady, who had been in devoted attendance on the children, went to Wilson's Hotel. There she was seized on Monday night, and died at 4 p.m. on Tuesday. The second child eventually recovered. One of the occupants of the room downstairs was at the time suffering from chronic diarrhoea, but he was not attacked. No more cases occurred in the house or in the servants' outhouses."

Here, as Dr. Macpherson observes, the sufferers had just arrived from sea; and it may again be just worthy of notice that, almost precisely as happened in Mr. Macnamara's case, where, of nineteen persons who swallowed water polluted by cholera excreta, five were attacked with cholera, so, of the eighteen inmates of this house, five were also attacked.

A very few days after the 19th Regiment arrived in Calcutta, early in the Mutiny, my friend Professor Longmore, of Netley, took me to the bedside of an officer who had gained remarkable distinction in the Crimea, and was known as "the Boy Colonel." Colonel R. landed his regiment about Christmas time (when, as we have seen, there is always a tendency to a brief cholera outbreak). In his first arrangements for his men, he had great mental anxiety and bodily fatigue. He sank in a few hours in the collapse stage.

"The incidence of Cholera will always be heaviest upon the most insanitary localities." I have endeavoured to state this generally recognised law in the words used by that great sanitarian, Mr. Edwin Chadwick, at a meeting of the Epidemiological Society on the 4th of July last.

As I have already mentioned, well-to-do ladies and gentlemen, who have resided for more than a year in Calcutta, or elsewhere in India, are rarely attacked. When they are, it is usually found that they inhabit certain notorious spots—such as Lall Bazar and its vicinity (the unhealthy quarter most frequented by sailors), the old town around Tank-square, and the site of an old filled-up tank in Chowringhee. My friend, Dr. Wilson, kept in his study a map showing every house in the place, on which he marked the houses where cases occurred within his experience. It was in such localities as the above that his black marks lay thickest. We inhabited, for some months, a house which, at first sight, appeared to be delightfully situated, but which I soon found to be surrounded with insanitary influences. When I left, on the occurrence of a case of grave remittent fever, I was told that the house was notorious for cholera; and I know that, in the course of a few years, two well-to-do Europeans died in one of the rooms.

Dr. Macpherson mentions (c) an instance which was known to every medical man in Calcutta. Many years ago, certain large palatial houses in Middleton-row were almost deserted,

(c) "Cholera in its Home," page 22.



being considered a hot-bed of Cholera. The site had been occupied by a large tank in Sir Elijah Impey's park, which had been filled in, doubtless after the old manner in Calcutta, with every kind of filth and refuse.

Next we have the well-established fact that *it is dangerous to travel in the Cholera area*. Hence it is that pilgrims, who endure the most terrible exposure, privation, and fatigue, appear so prominently in the history of Indian Cholera. The natives have a saying that the widow who goes upon a pilgrimage, performs as great a sacrifice as she who is burnt on her husband's pyre. *Those who are well lodged and in comfortable circumstances have a great prospect of escape, if they remain at home*. Well-to-do Europeans, resident in Calcutta, suffer very little from cholera, but travellers undergo great peril of that disease, even when there is but little fatigue, privation, or exposure. A late venerable archdeacon, who had enjoyed good health for many years in the Cholera atmosphere of Calcutta, went up-country on visitation, and died of Cholera at Ghazipur. The only member of our rather large European community who suffered when Epidemic Cholera visited Chittagong, in 1849, was the chaplain. He came in from Tipperah, when Cholera was raging in my jail, ate a hearty dinner, went to bed, and was almost immediately attacked. His was a very severe and typical case, and recovery was difficult. The following case also came within my own notice. Two young married ladies arrived at Calcutta by the same ship in the cold season. One of them remained in Calcutta nearly three months, and then accompanied her husband from our house at Howrah, in high health and spirits, to the barracks at Chinsurah. This was early in the Cholera season. Meeting the other lady in the neighbouring town of Hooghly, she accompanied her friend to church on the first Sunday after her arrival. Both were attacked with cholera on that day, and both died. A year or two subsequently to this, a lady, long resident at Chinsurah, came down on a visit to a relation living in one of the best situated houses in Calcutta. She was immediately attacked with fatal cholera. This lady's husband subsequently left Chinsurah, and was stationed, for a short time, in Burmah. He died of cholera on his return to Calcutta. Such cases are known to every officer of Indian experience.

Within the last few months, I heard of a case illustrating this law. A wealthy lady had made a tour through India, and, having come down to Calcutta from the Upper Provinces, invited a friend of mine, who called on her arrival, to luncheon on the following day. Previous to that time she was fatally attacked by cholera.

In old times, within my recollection, occurrences like the following were frequent in India. A party of healthy European soldiers would be embarked early in the morning at Chinsurah on a well-found troop-boat, towed by a steamer. On arriving at Fort William, Calcutta, at midday, several men, dying of cholera, would have to be landed and taken to the General Hospital. Again, a vessel, conveying coolies to the Mauritius, would leave Calcutta with all on board healthy. Cholera almost inevitably appeared, with more or less severity, before the vessel passed the Sand Heads, 110 miles down at the mouth of the Hooghly, and ceased when she was once fairly at sea. When it was customary to send European soldiers up-country from Bengal on country boats—which, when not overcrowded (as they too often were), were comfortable and wholesome,—the results were frequently most calamitous. An account of one of the latest and most disastrous instances—that of H.M.'s 87th Royal Irish Fusiliers, in 1849—is detailed in my work “On the Means of Preserving the Health of European Soldiers in India.”(d) Between September and the following March, this fine regiment, 1036 strong, lost, on their way up, from cholera, dysentery, and fever, 217, exclusive of 1 officer, and 29 women out of a strength of 73, and 29 children out of 103. In the above-mentioned work are cited at length several instances illustrative of the law that native troops, when embarked on country boats, were almost invariably attacked with Cholera, as in the case of the 8th Native Infantry, who, on the voyage from Cawnpore to Benares, at the end of August and beginning of September, 1856, lost, in seventeen days, 42 men out of a strength of 1115. Nearly all authorities agreed that these outbreaks of cholera, among Hindoo troops, were dependent mainly upon the use by the men of ill-cooked nutri-

ment—such as *chobanee* (parched rice) and soaked *gram* (horse beans). I feel confident, however, that these parties merely fell under a law in Cholera to which men of all habits and races are alike subject. Raw rice and beans could not cause cholera, they could only excite it; and we see that European soldiers, to whom these articles of native diet were unknown, suffered precisely as the natives did.

Here we come upon a concurrent law, the explanation of which has perplexed many. *Whenever Cholera attacks a barrack or jail, the surest means of staying the pest is to remove those who are still well to a judiciously chosen camping ground*. We did this when my jail at Chittagong was very severely attacked by epidemic cholera in 1849. Not a single case occurred after the prisoners were promptly removed to camp. Mackinnon gives an instance in which, Cholera having broken out in a Queen's regiment in Fort William, part of the wing of the regiment was moved to Chinsurah Barracks, with the best effect. Upon this interesting point Dr. John Murray's paper “On Removal in Epidemic Cholera”(e) should be consulted. It is mainly due to native recognition of this law that so many ruined villages are noticed in travelling through the swampy districts of Lower Bengal; and that every large city, like Dacca, is observed to be environed by a wide belt of hut foundations.

(To be continued.)

## NOTES ON ETHER NARCOSIS.

By LESLIE PHILLIPS, M.D.

HAVING had not inconsiderable experience in ether administration, I may be pardoned for bringing the following few observations before the profession, hoping that some who have not had much opportunity of giving ether may be benefited.

Mr. Teale made a valuable suggestion when he said that ether should be given in a curve of harmonic progression, as may be well done by a Clover's inhaler, beginning with air, and gradually increasing the dose of ether till the patient breathes nothing but ether vapour. This is the best possible way to avoid struggling and to give courage to the timid. I would add this fact, that the longer a patient has been narcotised, the less ether he requires to keep up the narcosis. The drug has a kind of cumulative action, probably from the tissues becoming saturated with the vapour. At any rate, it is a fact that, in order to be kept under, a strong man, for example, will require to respire unmixed ether vapour till three or four ounces have been inhaled; then, and not till then, may the administration be a little relaxed, and an occasional breath of air be allowed: say on every fourth inspiration the inhaler may be removed. To state it as an aphorism—“The more ether taken, the less is required to prolong the narcosis.”

The best way to observe the conjunctival reflex is by the associated action of the other orbicularis palpebrarum. Touch the right cornea, and watch the left eye; if the left orbicularis does not respond, suspend ether. It must be observed, however, that from natural causes the conjunctiva in some patients becomes under ether very dry, and then loses to a great extent its sensibility, so that its reflex cannot be elicited. This fact must be borne in mind; for, if not, we may be apt to think that our patient is deeply narcotised, when such is not the case.

Ether acts as a respiratory stimulant, and, when the patient is once asleep, diminution in the force of the respiratory acts generally means that the patient is coming from under the influence of the anæsthetic. If the inhaler be removed, or if there be no ether in it, the breathing may become so feeble as to be almost imperceptible, more especially since it is contrasted with the previous vigorous breathing during inhalation. In this way, alarm at the patient's condition may be caused; but the pulse is good, and, more easily observed still, the eye-reflex will be found much more easily elicited than before. In a few moments, unless more ether is given, the patient will move and come round.

During ether narcosis, ankle-clonus may generally be easily obtained. The danger of administering ether in Bright's disease is admitted, and on one occasion the wisdom of the observation forced itself upon my notice. Prolonged

(d) *Indian Annals of Medical Science*, No. x., page 706.

(e) *Transactions of the Epidemiological Society*, 1879-80.



suppuration from a necrosed humerus had caused a cloud of albumen to appear in the urine. It was proposed to amputate at the shoulder-joint. Ether was given at the request of the surgeon. Narcosis was easily induced; the conjunctivæ were much more anæsthetic than is usual with the quantity of ether used, the face was bluish, and altogether the coma was alarming. An occasional breath of the anæsthetic sufficed to keep the youth under. This suggests that if ether be given in albuminuria its action should be suspiciously watched, and its quantity minimised. In the above case two ounces kept up the anæsthesia for half an hour.

The usual rule observed during the inhalation of ether is that the surface of the body, especially of the face, neck, and upper part of the trunk, gets hyperæmic, and feels hot to the touch. This is more noticed in hot weather. It is to be observed, therefore, that the patient should be covered as much as possible with blankets to prevent chill, which is likely to easily take place in such condition. After the inhalation has been continued for a time we frequently observe that the surface becomes very cold to the touch and bedewed with moisture. This is probably due to shock, and though likely to cause some alarm to the inexperienced, it is, in my observation, of not much significance.

For patients who are very anæmic, from long-continued disease or from hæmorrhage, ether is the appropriate anæsthetic, but even it must be used with much skill and caution. Such patients easily become narcotised, and are easily kept under. At first the pulse and general condition seem to improve, but this will not last long, and signs of failure will very soon be observed, notably failure of wrist-pulse. No rallying power is manifested, the heart gradually fails, the lungs fill up, and the patient dies without recovering consciousness. The lessons which such circumstances should teach are—Firstly, the anæsthetist should use the minimum quantity of the drug, not attempting to produce complete coma. Secondly, the anæsthetist himself should see that the patient is surrounded with hot bottles and blankets during the operation. Thirdly, the surgeon should perform the operation as though the patient were not under the influence of an anæsthetic; he should think he was operating in 1843. Fourthly, when it is obvious that the patient has not rallying power, and it is plain that he is dying from anæmia, it is my opinion that the introduction of a saline fluid into a vein should on no account be omitted.

Birmingham.

**CARRYING CLINICAL THERMOMETERS.**—Dr. Clark, of Raekford, writes:—"The most convenient way to guard a clinical thermometer against accident that I have ever tried or heard of is simply to carry it in the pantaloon pocket, just as a knife is carried. I usually devote the left-hand pocket to this purpose. Let any physician try this plan, and he will prefer it to every other."—*New York Med. Record*, August 18.

**THE FÆCES OF STARCH-FED INFANTS.**—At the Philadelphia College of Physicians, Dr. Randolph read a paper (*Boston Medical Journal*, July 19) in corroboration of the conclusions of Dr. Keating (*Medical Times and Gazette*, August 18) that starchy foods are digestible by young infants. He tested the stools of twenty-four starch-fed infants, varying in age from forty-five days to eighteen months. He found that the presence of starch was exceptional, and not dependent on the age of the child. The stools of eighteen contained either no starch or but a trace—that is, not more than is frequent in the healthy evacuations of a healthy adult on a mixed diet. In many cases the broken and empty cellulose envelopes of the starch granules were clearly discernible. The six infants in whose evacuations a noteworthy amount of starch was present were aged three, four, ten, thirteen, fourteen, and seventeen months. The eldest two were in very bad health. Dr. Randolph concludes:—1. That many infants of under three months can digest starchy food. 2. That the individual variations in this regard are so numerous that no broad and general statement can be made as to the period at which infants begin to digest starch. 3. Absolute knowledge that a farinaceous diet is beneficial to a young infant can only be attained by an examination of the dejecta under such diet. In one instance Dr. Randolph found 10 per cent. of fat in the fæces of a child who was receiving two inunctions of cod-liver oil daily.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### EAST LONDON HOSPITAL FOR CHILDREN.

#### SUBMERSION—PLEURISY—EMPHYEMA—INCISION —COUNTER-OPENING—PERITONITIS—DEATH— AUTOPSY.

(Under the care of Dr. H. DONKIN.)

[For these notes we are indebted to the kindness of Mr. F. W. S. STONE, Senior Resident Clinical Assistant.]

WILLIAM T., aged six, was admitted, under the care of Dr. Donkin, on June 22, 1883. The boy was said to have been always delicate and to have had winter cough. "He could never play about like other children." He had scarlet fever in May, 1881, and measles in December, 1882. His father died of phthisis, at twenty-seven years of age; his mother is alive and well, and now aged thirty-one; her family are all healthy. She has had five children, of which two have died—one of pneumonia, and one of scarlet fever.

**Present Illness.**—This commenced four months ago—he was thrown into a pond of water by some of his schoolfellows, and remained in his wet clothes for three hours. Two days after this he had three rigors, each being followed by profuse sweating and by vomiting. He refused his food, saying that "he felt sick and queer all over." He has been very thirsty. There has been slight hacking cough, but no sputa and no hæmoptysis. Breathing has been painful. Taken to a doctor, he was said to have pleurisy, and hot fomentations to the side were ordered. Subsequently a blister was applied to the chest. He has continued under this doctor for the past eight weeks.

**State on Admission.**—The boy is much wasted. His abdomen is prominent. The breathing is markedly diaphragmatic. The whole of the left side of chest is distended and immovable. There is marked cardiac pulsation in the epigastric region. In the left subclavicular space there is a prominent semiglobular swelling, the maximum prominence of which corresponds with the second rib. It fluctuates freely; skin is slightly reddened and infiltrated. There is complete dullness on percussion over the whole of the left side of the chest, back and front, extending anteriorly a little beyond the mid-sternal line; and over this area breath-sounds are completely absent. The heart is felt beating one inch and a half internal to the right nipple. On the right side there is some harsh breathing, with coarse crepitation, and clicking sounds at the extreme base. The fingers and toes are markedly clubbed. All the superficial thoracic veins are distended, and the face is considerably cyanosed.

A free incision was made into the fluctuating swelling just described by Mr. Battams, the Resident Medical Officer, and two quarts and a half of yellowish pus, slightly offensive, were evacuated, with immediate relief to the dyspnoea. A large drainage-tube was put in. The abscess-cavity is very extensive in all directions.

June 23.—The boy has been easier since his chest was evacuated. He slept well during last night, but had two fits of coughing, which caused great pain. Bowels were opened twice during night. Cyanosis of face has, to a large extent, disappeared. The cavity was irrigated with warm weak carbolic solution (one in 100), and a quantity of shreddy material came away. The discharge is still slightly offensive. The boy lies on the right side, with his knees flexed, and the thigh drawn up on to the abdomen, which latter is tender all over, and distended.

24th.—There is a considerable discharge from the chest, and the pus is markedly offensive. Temperature rose during the night to 100.8° Fahr. There is slight cough, but no sputa and no hæmoptysis. The face is very sallow, and the eyes are sunken. He is very thirsty.

25th.—The abdominal pain has increased. The whole surface of the belly is tender on the slightest pressure, with great pain during urination or defæcation; there is also tenesmus. Pulse 120, wiry; respirations (thoracic) 32, painful. The urine has a specific gravity of 1024; is loaded with urates, but no albumen.

29th.—There is great increase in the abdominal pain; opium fomentations were ordered to the abdomen. The boy is now lying on his back, with thighs and legs flexed. He cries on the slightest movement. Temperature 102° Fahr.



The skin is dry and hot; the face flushed. Respirations 40, markedly thoracic. He was sick twice last night. The abdomen is much distended, and with slight dullness in the flanks. The tongue is dry, coated, and clammy.

July 1.—A counter-opening was made in the eighth intercostal space below the angle of the scapula, and a large tube introduced; a quantity of slightly offensive pus was thus evacuated. The pleural sac is irrigated twice daily with Condy's fluid and water. The abdominal symptom remains the same; no further vomiting.

2nd.—There is now slight dulness at right posterior extreme base, with pleuritic friction. Temperature last night 102·8° Fahr. Ordered tinct. aconiti ℥j. every two hours till the temperature falls.

3rd.—Temperature 101.2° Fahr. last night. There is much less abdominal pain this morning.

6th.—The aconite to be discontinued. Abdomen still a little tender, but the urgent peritonitic symptoms seem to have passed off. There has been no further vomiting. Bowels are opened two or three times daily: motions highly offensive, containing flakes of mucus. The wounds in the chest are still irrigated night and morning; they discharge a fairly healthy pus. The lung, covered by its thickened visceral pleura, bulges with each inspiration against the chest-wall. The dulness at right base is increasing.

10th.—Diarrhoea has been present since the 7th; each action is attended with severe abdominal pain. The temperature rose last night to 105·4° Fahr., falling this morning to 98° Fahr. He was sick three times during last night. Pulse 160, very weak and irregular; respirations 72, not painful, purely thoracic. Tongue is covered with a thick brown fur. There is marked increase of dulness in the flanks. The patient is in a condition of collapse. The extremities are nearly cold and the face pale. The skin is covered with a cold, clammy sweat. He was sick four times during early morning. Hiccough has troubled him these last two days. He is slightly delirious.

11th.—Death in collapse.

*Post-mortem Examination* (by Mr. Stone).—The whole interior of the left pleural sac is much roughened by inflammatory deposit. Several thick adhesions at lower posterior part; each adhesion is recent and vascular. The pleural surface of the diaphragm is covered with the same kind of inflammatory lymph; an irregular opening can be traced along the left crus of the diaphragm, leading into the abdominal cavity, but behind the peritoneum. The whole of the cellular tissue covering the anterior lamella of the transversalis fascia is much infiltrated with pus and lymph. The peritoneal cavity contains eight ounces of sticky sero-purulent material; the peritoneal surface of intestines is deeply congested. No bands of adhesion; no ulceration of intestine. Two ounces of serum in the right pleural sac. Kidney, liver, and spleen normal.

*Remarks.*—The boy's submersion, and his subsequent three hours' chilling from his wet clothes, would amply explain the onset of his pleurisy. The symptoms seemed to have been well recognised by the medical man under whose care he was previous to his admission into hospital. It is unfortunate that suitable treatment was not adopted much earlier in the disease. To wait for an empyema to discharge itself is not quite in keeping with modern teaching. Early aspiration might or might not have sufficed to cure the patient; in any case, free incision would have offered a better chance of recovery if it had been practised two or three weeks previously; while the lung would have had a greater chance of re-expansion, and there would have been less risk of the pus getting beneath the diaphragm into the abdomen. The occurrence of peritonitis was interesting, although there was no direct communication between the pleural and peritoneal cavities. It has doubtless the same pathological significance as pericarditis occurring, as it not infrequently does, under similar circumstances. The spontaneous opening of the pleura occurred, as it does in the great majority of cases, in the upper part of the chest wall, and not, as would *à priori* perhaps be expected, in a more dependent part. In such cases it is well to utilise the opening which nature makes for evacuation, but it is generally necessary, as well as desirable, to make a counter-opening lower down. In this instance the boy's condition was so low that the second opening was not made until some days had elapsed after the first operation; the discharge of pus was materially aided thereby. Death took place from peritonitis and exhaustion.

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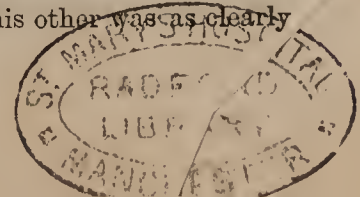
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Medical Times and Gazette.

SATURDAY, SEPTEMBER 8, 1883.

## MEDICAL EDUCATION.

EVERY year, as October comes round, the thoughts of a large proportion of the profession are turned towards the subject of medical education ; and year by year a feeling of uneasiness spreads and deepens among parents and guardians, and indeed among all thoughtful men, as the number of subjects increases of which medical students have to show a competent knowledge, and as the amount of acquaintance with each subject which is considered as competent knowledge comes to be measured by a higher standard. Already the amount of learning of every kind which has to be acquired in the four short years of the minimum medical curriculum is so great that the percentage of rejections at most of the examinations increases year by year. There can be no doubt that this increase results from no general deterioration in the ability or industry of the students, but from increased stringency in the examinations. We do not blame the examiners for this result. They give effect to the general feeling, both of the profession and the public, that the continued advance of the general stock of knowledge of disease and its treatment shall be reflected in the continual increase of the knowledge demanded from each individual who is licensed to treat the sick. Hence, as Mr. Hutchinson says, "an extension of the period of study, a well-considered limitation of its subjects, and lastly, a careful development of its methods, are the three measures which severally suggest themselves" to remedy this condition of things. But besides these alternatives there is a third course, the arguments for which deserve attention—to abolish altogether the restrictive regulations as to time, and allow the student to present himself for examination whenever he feels himself, and is considered by his tutors, competent for the trial. By fixing a time at which the student may present himself, the intention was no doubt to say in effect that this period was the shortest in which the necessary knowledge could be acquired. But, at the same time that that inference was suggested, this other was as clearly





involved. If the supreme authority fixes this time for the acquisition of the necessary knowledge, then this time is sufficient, and to fail in presenting oneself for examination after the prescribed time has been spent in study is clearly a neglect of duty towards one's parents and oneself. This is the light in which probably the majority of students regard the regulation of the period of study; and if they are rejected after having spent this period in honest work, they have a bitter feeling that the examining body has, as it were, broken faith with them. The feeling may or may not be irrational, but it exists, and it is worth taking into account. Moreover, the disheartening effect of rejection on a young and sensitive mind is far greater when it is officially declared—or at the least suggested—that the candidate might, could, or should have passed after so much time spent in study. If, on the other hand, the regulation were done away with, the student would not feel himself bound to go up on a certain date, whether he were ready or whether he were not, but would either wait until he could go up with a reasonable chance of passing, or, if rejected, would attribute his failure to miscalculation of the time required, and would set to work again with a good heart. Again, no officially declared time being fixed at which a student must either go up for examination or be content to be considered an inferior man, both he and his tutor would pay more attention to the calculation of his chance of passing, and be less eager to cry double or quits with destiny. If this reform were made, another measure of liberty might be granted at the same time, and compulsory attendance on lectures be abolished. Granting that the lecture is the best possible mode of imparting and receiving instruction, none the less, it is said, is *compulsory* attendance a mistake. In the first place, it is needless. Students are not the intellectual infants that these regulations suppose them to be; they are old enough to discern the methods by which they learn most easily and most thoroughly. Good lectures are invariably well attended; students flock to them, crowd to them, even when they are under no obligation whatever to attend. Indifferent lectures may, under the compulsory system, have an audience, but no compulsion will make the audience attentive. Students who are compelled to attend a lecture in which they cannot find interest will occupy themselves in whispered conversation, or in furtive employments of a less legitimate kind, and will not only derive no benefit themselves from the lecture, but will distract the attention of those who might profit by it. The belief that compelling a student to sit in the same room in which a lecture is being delivered, for an hour at a time so many times in the year, will induce him to imbibe one iota of knowledge, is a delusion; and the sooner it is abandoned the better. It would be better for the licensing bodies to leave the task of regulating the studies of the students to the various medical schools, which will regulate them in accordance with the individual qualities of their teachers and the individual wants of their students, while the licensing bodies should confine themselves to ascertaining very thoroughly whether the candidates who come before them possess a competent knowledge of their several subjects, without inquiring too curiously how that knowledge was obtained. If their processes are trustworthy, and their examiners efficient, they ought to be able to sift those who have been practically taught from those who have been crammed, without asking the hospital authorities to send up this information on schedules. It is the business of the licensing bodies to discover whether the candidate has been efficiently taught, and the very fact of their requiring a quantity of written information on this point from the schools is a confession of weakness, a confession that they are unable or unwilling to discover the whole for themselves.

The arguments which we have presented in the foregoing remarks have by themselves great force. But in the affairs of life it constantly happens that what is called compromise is the best course. We say what is called "compromise," because that word, in its literal meaning, denotes a sacrifice or surrender of principle; whereas, in the present case, a system intermediate between the courses required for the practical carrying out of two opposite principles may not involve sacrifice of either, but rather the preservation of the essential points of each. We have just summarised opinions which are those held by many, probably most, students. We do not think it needful to oppose them from the teachers' point of view; for the teachers have in their own hands ample power of effecting whatever changes they think desirable. But from the point of view of the public we wish to make some remarks upon the subject.

First, the absolute liberty which some desire: the liberty to students to get their knowledge where they like, and how they like, and come up for examination when they like, would at once open the door to unlimited personation. At present, when a man is obliged to get his education at a regular medical school, where there are many other students, along with whom he works, and with whom he presents himself for examination, it is scarcely possible for him to pass by proxy; but were men allowed to come up without certificates, when they like, what is to prevent a man passing two or three times over, in the names of different persons unable to get through themselves? With the present nineteen licensing bodies, this would be the simplest fraud conceivable; and even with an examining board for each division of the kingdom, it would be so difficult of detection that great temptation to it would arise. This is so obvious that we need say no more on the subject.

Supposing, however, that an efficient means of preventing personation has been discovered, under the system proposed the only security that none but proper persons will be registered is the examination. If examiners were infallible, and could thoroughly test and correctly judge each candidate coming before them, the examination would be sufficient. But they are not; scarcely an examination is held without its happening that some of the rejected are known to be superior to some of the passed. On the average we have no doubt the examiners gauge the competence of candidates pretty accurately. But an examination is not, and cannot be made, an investigation of such thoroughness and accuracy as to be a test that can be relied upon alone. The compulsory attendance on lectures (especially when, as now, the candidate has to produce certificates that he has attended to the lecturers' satisfaction) represents the recognition by the examining boards of the need of supplementing the examinations by reference to the opinion of the teachers. No one can so well judge of the fitness of a student to be entrusted with the responsibilities of medical practice as his teachers; those whose opinion is based, not on ten minutes' questioning, but on months or years of close observation of his conduct. If the persons for whom we had to legislate were simply intellectual machines, whom neither personal interest nor sympathetic feeling could influence, there could be no doubt that the best course would be to empower the teachers at each medical school to grant (in their collective capacity) certificates to those of their pupils who they think deserve such, stating the competence to practise of those who received them, and for the Medical Council to accept such certificates as entitling the holders to registration. There could (the postulate being granted) be no doubt of the excellence of such an arrangement, for the examiners at present are drawn almost entirely from the teachers at the schools, and the effect of the suggested change would be that instead of each



examiner giving his decision as to his colleagues' pupils, of whom he knows nothing, he would express his judgment upon his own, whom he knows thoroughly. But the objections to such a Utopian scheme as this are too evident to need much exposition. The teachers at the medical schools are men of flesh and blood, possessing the usual frailties of human nature. Close acquaintance brings with it not only knowledge as to competence and character, but often a feeling of strong friendship in some cases, of repulsion in others—feelings which bias the judgment. Besides this, the pecuniary interests of the teachers, both as private practitioners and as the recipients of profits earned by the medical school to which each is attached, would be largely affected by their readiness or otherwise to grant qualifying certificates. To put upon the teachers the responsibility of deciding as to their pupils' fitness to practise, would be to expose them to most unfair temptation.

Although to burden the teachers with this weighty and invidious responsibility would be quite impracticable, yet we have dwelt upon it because it seems to us that in the arrangements which may be made in the future for securing that none but fit persons shall be placed on the register, the co-operation of the teachers must be provided for. Their assistance is necessary not only for the solution of the mere police question of preventing personation, but because their judgment as to a candidate's acquirements is better than anybody else's possibly can be. A model tribunal should unite their full knowledge with the impartiality of examiners who are entire strangers to the candidates. In the present undecided state of the medical licensing laws it is not worth while to go into details upon the matter; we therefore simply ask attention to these considerations, and leave the subject for the present.

### SEWAGE DISPOSAL AT BERLIN.

BERLIN has a population of about a million and a quarter; it stands on a perfectly level plain, and is intersected by the river Spree, one of the most sluggish streams, perhaps, in all Europe. Until recently the sewers here, as everywhere else, discharged themselves directly into the river, which naturally surpassed in foulness the Thames of twenty or thirty years ago. Under these circumstances, it may well be imagined that the problem of dealing with such a mass of sewage presented almost insurmountable difficulties; indeed, at one time the abandonment of the site, and the removal of the capital to a more eligible position, was even suggested as a dire necessity. But within the last ten years the Germans have been undertaking the sewerage—or, as they call it, canalisation—of their large towns with praiseworthy energy, and the engineer whose genius had made Frankfort one of the healthiest cities of its size in Europe was invoked to purge the Spree. The authorities determined on adopting the system of irrigation, and for that purpose the Municipality obtained possession of a number of estates to the north, east, and south of the city, those at Falkenburg and Bürknersfeld covering 2000 acres, and those at Osdorf, Friederikenhof, Heinersdorf, and Grossbeeren over 5000 acres. Between these the sewage was pretty equally divided, but for some time only 700 acres of the former and 1400 of the latter were adapted for irrigation. By adaptation the engineers mean the division into a number of areas, at the highest point of each of which is a sluice communicating with a branch of the main culvert, where the sewage is always under some degree of pressure. When the sluice is opened, the sewage flows into feeders, from which it disappears in the soil; the more inclined parts are turned into meadows,

and the lowest levels into vegetable gardens. The channels for the discharge of the effluent water are deep dykes, dug in the lowest outlying parts of each area, and having no direct communication with the irrigation fields or feeders. Into them the water percolates through the sandy soil, or is conveyed by drainage pipes. Finally it is discharged into the tributaries of the Spree, the Wuhle, the Panke, and the artificial *Grenzgraben*. When the sewage was found to be in excess of the capabilities of the land, which was especially the case in winter, it was stored in reservoirs, varying in size from five to ten acres surrounded by low embankments. From these it disappeared in three or four months, when they were sown with rye-grass, the first crop of which was ready for cutting in a few weeks. So long as so small a proportion of the land was adapted for irrigation, recourse was had to these reservoirs to an extent never contemplated by the engineers, who intended them only as temporary and occasional expedients. As Osdorf, for example, there were twenty such basins, covering together some 300 acres, the exhalations from these "lakes" poisoning the air, while the sewage-sodden soil lost its depurative power. The question was referred to a Royal Commission, in whose report it was pointed out that the nuisances justly complained of were the results of a defective execution, excusable, however, considering the vast scale of the experiment, and in no way to be laid to the charge of the system itself, in which they expressed their entire confidence. On their recommendation the central authority insisted on the Corporation extending the process of adaptation, enlarging the effluent channels, and acquiring fresh land until the proportion one acre to every hundred of the population should be attained. All this was accomplished more than a year ago, but, as might have been expected, the owners of property, especially of suburban villas, were alarmed at the extension of the sewage farms to the enormous area of 10,000 acres; and the local authority of Pankow, backed by the representations of Dr. Fuhrmann, the *Kreisphysikus* (medical officer of health), obtained in November, 1882, from the Government of the province of Potsdam, an injunction against the Municipality of Berlin, restraining them from discharging their effluent into the Panke. In the following February the Ministers of the Interior, Public Works, Agriculture, and Medicine, on an appeal from the Corporation, and acting on the advice of the Imperial Board of Health, annulled the injunction, and called on the members of the last-named (with whom was associated the eminent chemist, Professor Tiemann) to institute a microscopic, bacterioscopic, and chemical examination of the sewage, the effluents, and the waters of the Spree above and below the outfall of the Wuhle, Panke, and *Grenzgraben*, as well as of the water supplied to the city by the company's works. Dr. Tiemann having examined the water at fourteen different points in its course from the filtering beds to the Spree, concludes that the effluent, though efficiently filtered, has not under present conditions been deprived of the whole of its ammonia, nor have its organic impurities been completely converted into inorganic matter, or into organic bodies giving but a feeble reaction with potassium permanganate, such as are met with in natural and not specially polluted rivers. But experiments and analyses prove that these changes are completed in the Wuhle and *Grenzgraben*, for water taken from the outfalls of these gives the same feeble reaction as that of the Spree at higher points, and as that of Lake Rummelsburg, whence the supply of the city is drawn, and which is protected against all pollution from without. In fact, the water of the Spree is in no appreciable degree affected by receiving that of the Wuhle, etc. These conclusions confirm what we maintained some time ago, when discussing the question of sewage treatment by irrigation, viz., that though the effluent is itself unfit



for domestic use, and it would not be safe to take a supply immediately below the outfall, or from a very small stream receiving such effluent, yet a few miles lower down the combined effects of dilution and oxidation by exposure to air and the action of vegetation efface all appreciable pollution and difference in composition between the water of the river receiving such effluent and others. The process adopted by Dr. Koch for the bacterioscopic examination of water, and quantitative estimation of its *real* character as regards potability, is so novel, so ingenious, and seems so full of promise, that we shall on another occasion describe it in detail. In conclusion we may remark that it is as yet premature to judge of the results of the Berlin scheme, since a conflict of authorities on legal points will delay its completion for some time; but it is of the highest interest, as being the first attempt to dispose in this manner of the sewage of a population exceeding a million, and that under physical conditions not the most favourable.

### SECLUSION OF THE INSANE.

THE *American Psychological Journal* for July, 1883, says, "We copy entire the article from the *Medical Times and Gazette* with the above title," and goes on to offer some criticisms which are not unkindly, but which are based upon an erroneous interpretation of the article in question. By a curious oversight the article (which appeared in our columns on July 7 last) is *not* reproduced in our American contemporary. Had it been copied as averred, much of the criticism would have been seen to be forestalled by reservations and conditions in the article itself, and we should have been spared the task of repudiating opinions which, though not expressly attributed to us, any reader of the criticism in question would naturally infer that we are responsible for. As it is, even the title is erroneously given, our article being headed, with definite meaning, "*The Use of Seclusion of the Insane*," in order to draw attention to the distinction that we insisted on between its use and its abuse. "The dark cell and bread and water as the only diet" have never been advocated by this paper, nor, as far as we know, by any sane person during the last half-century, as legitimate aids to the treatment of insanity. "Quiet—removal from all exciting scenes and sounds—is a desideratum in the treatment of many diseases, and especially those affecting the brain and other nerve-centres. It is often essential to recovery, and we see no reason why it may not be specially indicated in some forms of insanity." The doctrine which the *Psychological Journal* expresses in the foregoing terms is a paraphrase of that which was advocated in these columns. Under the circumstances of a patient becoming suddenly violent, noisy, or troublesome in a ward containing a score or more of insane persons, it would seem wise, our contemporary admits, to separate him till the violence of the paroxysm passes off; but it goes on to say, "separation does not necessarily imply seclusion." Here we must emphatically join issue. According to the meaning authoritatively attached to it in this country, seclusion is "compulsory isolation in the daytime," and it matters not whether the patient is isolated in a cell six feet square or in a twenty-acre field: if he is compulsorily isolated from other human beings he is in seclusion. This legal meaning of the term is not as well known as it ought to be, even on this side of the water, and we cannot, therefore, be surprised if our American *confrères* are ignorant of it. Few even of our asylum superintendents are aware that when they turn a troublesome patient out into a spacious airing court alone, they are under a legal obligation to enter him in the "medical journal" as secluded.

### THE WEEK.

#### TOPICS OF THE DAY.

A CONSIDERABLE amount of typhoid fever is stated to exist at the present time in the parish of St. Pancras. Since the 15th ult. twenty-seven cases have been reported to the parochial officials, and of these some, being paupers, have been removed to the Homerton Fever Hospital; whilst eight or nine paying patients have been persuaded to assent to the adoption of a similar course. Dr. Stott, who is acting for the medical officer of health for the parish (Dr. Murphy), is of opinion that the crisis has now been reached, and that the epidemic is subsiding. Two cases of the fever were reported on the same day from Greenland-place, which leads immediately off the High-street, Camden Town, and cannot certainly be called a "slum," although occupied by the poorer classes. On an inspection of this locality by the sanitary officers, most of the houses were found to be very clean, and but few defects were discovered. The house from which the fever patients were removed was found to be somewhat overcrowded, and a notice was served to remedy this evil. Dr. Stott ascertained that the commencement of the outbreak of typhoid dated from the 3rd or 4th ult.; and as some of the cases occurred in houses of the best class in the locality, the milk-supply was investigated, more especially that furnished by one particular dealer. Most of the evil was found to have been done during a few days about three weeks ago, and it was ascertained that about that time a man left the dairy suffering from congestion of the kidneys, and afterwards developed typhoid fever; after he left, two other persons in the same employ were prostrated by the fever—the latest only a fortnight since. It may be hoped, therefore, that if the source of the infection has been correctly traced, the present outbreak will shortly be stamped out.

We last week briefly alluded to the recent report of the Inspector of Retreats under the Habitual Drunkards Act, 1879. The report states that during the past year as many visits as were necessary were paid to the two retreats registered, viz., Hall Court, Cannock, and Tower House, Westgate-on-Sea. An investigation of the complaints made by the patients elicited the fact that they were mostly trivial in character; but those made by the licensees, though not numerous, were more serious, and the inspector was obliged in some instances to warn the delinquents that a repetition of the offence would probably lead to prosecution. The general condition of both the retreats, and also the health of the patients, was, on the whole, very good, and the results obtained by treatment satisfactory. The detailed returns showed that in one case three out of the five patients admitted during the year received decided benefit, whilst, in the other case, nine out of twenty are spoken of as "certain or probable cures." Both licensees agree that a shorter period than twelve months' detention in a retreat is insufficient for permanent cure in the majority of cases. As regards the utility of the Act, the report gives the following opinion of one of the present licensees, who says:—"Having had experience in the management of an establishment for a similar purpose prior to obtaining a licence under the Act, I feel justified in asserting that it is scarcely possible to conduct a retreat for dipsomaniac patients in a satisfactory manner without the aid afforded by the Act." The total number of patients under treatment on December 31 last was fourteen.

At a recent Local Government Board inquiry, in reference to an application of the Acton Local Board for sanction to borrow £75,000 for the carrying out of a drainage scheme for the district, Major Tulloch, the inspector, stated that



the residents of Bedford Park and the owners of several estates in Acton had memorialised the Local Government Board to declare the Acton Local Board a defaulting authority, through failing to provide a sufficient supply of sewers. It was elicited in evidence at the inquiry that there were nine houses on one estate in regard to which the Local Board had not provided any means of disposing of the sewage, and the question arose whether that amounted to default. The inspector held that even if the Local Board failed to provide means of sewage disposal in the case of one house there was default, but the Local Government Board always considered the special circumstances of these cases. Strong opposition was manifested against the scheme for which this £75,000 was sought to be borrowed, the opinion being that it is unnecessarily expensive; and Major Tulloch, in compliance with an urgent request, resolved to recommend that the inquiry should be adjourned till October in order to give the ratepayers an opportunity of being heard on the subject.

The different metropolitan parishes have lost no time in endeavouring to secure an improved sanitary condition, in view of the probabilities of the introduction of cholera into the country. Upon the advice of Dr. Griffiths, their Medical Officer of Health, the Sanitary Committee of Clerkenwell have instituted an examination of the houses in sixteen different courts and passages. In one instance an underground kitchen was found illegally occupied as a sleeping apartment; in another a family of nine were found residing in a single room with a cubical capacity of 2040 feet, and notices were served upon the owners for immediate remedial measures. The local inspectors have also been employed in house-to-house visitation, and the gratuitous distribution of disinfectants has been largely carried out. The sanitary authorities of the parish of Shoreditch have issued a notice to the inhabitants, calling attention to the fact that there is a public mortuary in the parish churchyard to which a corpse can at any time be removed, and urging the parishioners during the summer and autumn heat to promote such removal, especially from small crowded dwellings. In some of the smaller cottages of the parish it has been found that residents occupy, to the number of four or five, the rooms where dead bodies lie; and other insanitary conditions render the removal, as suggested, imperatively necessary, though the authorities have no power to compel it.

The monthly return of the Registrar-General for Scotland for July last shows that during that period there were registered in the eight principal towns of North Britain the births of 3735 children, and the deaths of 2179 persons; the latter number was 166 under the average for the month during the last ten years, allowing for increase of population. A comparison of the deaths registered in the eight towns shows that during this month the mortality was at the annual rate of 13 deaths per thousand persons in Perth, 14 in Aberdeen, 17 in Edinburgh, 18 in Leith, 20 in Dundee, 22 in Paisley, 23 in Greenock, and 25 in Glasgow. The miasmatic order of the zymotic class of diseases proved fatal to 386 persons, and constituted 17·7 per cent. of the mortality; this rate was, however, exceeded in Glasgow, Greenock, and Paisley. Fever caused 22 deaths; of these 8 were tabulated as typhus, 13 as enteric, and one as simple continued fever. Six deaths from typhus were registered in Glasgow, and 1 each in Edinburgh and Leith. Whooping-cough was the most fatal epidemic, having caused 97 deaths, or 4·5 per cent. of the whole. The mortality from measles (92) was nearly as great, Glasgow and Greenock furnishing the highest death-rates from this disease. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 398, or 18·3 per cent. Those from consumption alone numbered 298, or

13·7 per cent. Three males and five females were aged ninety years and upwards, the oldest of whom was a retired farmer ninety-eight years of age.

An outbreak of small-pox has been reported from Leicester, introduced from Birmingham in the following manner:—A young woman working at Leicester went to Birmingham to visit her mother, who is engaged as a nurse at the small-pox hospital there. During the visit the mother gave her daughter a dress which she had worn whilst engaged in the hospital; the daughter took the dress back to Leicester and began to unpick it, but before she had completed her task she became ill, and as she was found to be suffering from small-pox she was removed to the Leicester small-pox hospital, where she eventually died. A few days afterwards two other cases of the disease occurred in the house where the deceased had lived. The sufferers were promptly removed to the small-pox hospital, and as a precautionary measure all the remaining inmates of the house were induced to go into quarantine at the hospital, where they are to be provided with all necessaries and amusements for fourteen days. It is hoped that these measures will prevent the further spread of the disease. Owing to the prevalence of small-pox in Birmingham and the surrounding district, the whole of the police of Aston, including the Birmingham division, numbering about one hundred men, have been re-vaccinated. The authorities have erected a number of tents to serve as small-pox hospitals outside the cemetery at Wilton, a long distance from any houses, and to these persons suffering from small-pox are immediately removed.

The Hospital Saturday collection was duly made on Saturday last, and, so far as is known up to the present time, the amounts realised would appear to be again in excess of any former contributions. It may be mentioned, in support of the remarks we recently made on this subject, that a note for £5 and a cheque for a like amount were found in one of the street collecting boxes—scarcely donations to be looked for from any working-man; whilst the *Times* says that “the boxes from the West-end, though not lighter than usual, indicated that September is badly chosen for a street collection in the West, the *wealthier people* of the district being for the most part absent from town.”

#### THE CHOLERA MORTALITY IN EGYPT.

THE total cholera returns in Egypt up to the end of August show that altogether the deaths in Lower and Upper Egypt amounted to 26,900. In the Army of Occupation there were 138 deaths. The Artillery had 21 fatal cases, the Cavalry 8, the Engineers 1, the Royal Sussex 33, the Duke of Cornwall's Regiment 5, the Black Watch 8, the Rifles 20, the Gordons 13, the Camerons 10, the Hospital Corps 15, and other corps 4.

#### THE FIRE IN SOUTHALL PARK LUNATIC ASYLUM.

ON Thursday last week Dr. Diplock opened an inquest on the body of E. E. Howe, aged sixteen years, who had been a housemaid in the Southall Park Lunatic Asylum, and who had died from the effects of injuries received in escaping from that house when it was burnt on August 14. It appeared that the girl, together with two other servants, got on to the roof, and that the deceased getting frightened, and indeed scorched, by the approaching flames, jumped from the roof on to a gravel walk, instead of to the roof of the west wing of the house, which was immediately below. There was ample evidence as to the cause of death; but the jury desired to discover, if possible, the origin of the fire; and at any rate, influenced and guided by their foreman, were determined to learn from the Commissioners of Lunacy whether they had not made any by-laws or regulations with respect to



provision against fire in lunatic asylums. The foreman was very earnest in urging that the Commissioners *must* have some regulations with regard to means of escape in case of fire, and as to provisions against fire; and in the end the inquest was adjourned for a week, in order that a representative from the Lunacy Commissioners might attend. We confess that we sympathise largely with the foreman of the jury, and think that he has rendered good service in insisting that the Commissioners should have an opportunity of stating in public what measures, if any, they require or recommend to be taken in order to insure, so far as may be, the safety of lunatics in case of fire.

#### THE ASYLUMS BOARD'S PROVISIONS FOR AN OUTBREAK OF CHOLERA.

At the meeting of the Managers of the Metropolitan Asylums Board held on Saturday last, a communication was read from the Local Government Board, explaining the provisions of the new Diseases Prevention (Metropolis) Act. The report of the General Purposes Committee was then brought up. This dwelt at length upon the previous history of the Board in connexion with cholera, and concluded by suggesting the addressing of letters to the boards of guardians and hospital authorities in London, stating that in the event of cholera spreading to this country the Managers would probably be called upon by the Local Government Board to make a certain [and defined] provision for the treatment of persons of both sexes suffering from the disease, such provisions to be so distributed throughout the metropolis as to be uniformly available for all cases. With the object of carrying out the views of the Legislature, the Managers desired, as a preliminary step, to enter into negotiations with the several boards of guardians and metropolitan hospital authorities, in order to ascertain whether they would be willing to place at their disposal, for a time, a certain number of beds for the treatment of patients suffering from cholera. Sir E. H. Currie, Chairman of the General Purposes Committee, in moving that the letter and report be adopted, observed that it should be distinctly understood that the Managers did not purpose to find accommodation for the whole of the metropolis. But the Board wished to see what provision might be obtained in case of a great epidemic of cholera occurring here, and they therefore wished to send out this letter. It must be made known that, although the Board were prepared to make general provision for London, yet, in case of a distinct epidemic breaking out in any one district, that district must deal with the epidemic. The report and the letter were eventually ordered to be adopted.

#### AN UNSUCCESSFUL NEPHRECTOMY.

The operation of nephrectomy was performed in Dublin last month by Dr. Kidd, Master of the Coombe Lying-in Hospital, on a woman, aged twenty-eight. She was first admitted into the Coombe Hospital in February, 1882, when she gave the following history:—In October, 1880, she suffered from a severe wetting, and from that time menstruation, previously regular and normal, had recurred at fortnightly intervals, being profuse and accompanied by rather severe pain referred to the hypogastrium. From the same date the patient has suffered from great irritability of the bladder, being unable to retain urine for more than ten minutes at a time, whilst micturition was constantly accompanied by very severe scalding or cutting pain referred to the external orifice of the urethra. The urine was then healthy, and no cause could be found either in the urinary or genital tracts to account for the pain. Some time afterwards the urine became distinctly purulent, and the mucous membrane

of the bladder, examined by means of the endoscope, was seen to be very red and vascular. The passage of a sound into the bladder gave rise to great suffering, and therefore a permanent vesico-vaginal fistula was established by operation, without, however, being followed by the expected relief. In May of the present year the patient again came under notice, suffering from the same symptoms as formerly, but a movable tumour was now felt in the right hypochondrium, in general shape and consistency resembling an enlarged kidney. In the situation of this tumour the patient complained of much pain, aggravated by lying on either side. The diagnosis was made of a right kidney enlarged by abscesses. In consequence of the severe pain and the irregular hectic, and wasting of the patient, Dr. Kidd decided on removing the kidney, and the operation was carried out, under bichloride of methylene, on July 12, and lasted altogether about an hour and a half. The incision was made through the anterior abdominal walls over the length of the tumour. The peritoneum was adherent over the front of the kidney, and there were several firm adhesions posteriorly also. There were a great number of separate abscesses found in the substance of the kidney. Hempen ligatures were used to tie the pedicle, which consisted of the renal vessels, ureter, etc.; and the pedicle was then dropped back into the abdomen, a glass drainage-tube inserted, the peritoneal cavity carefully cleansed, and the wounds closed up. The patient at first seemed to rally well from the operation, but died twenty-four hours afterwards from collapse, without any hæmorrhage having taken place.

#### CARMICHAEL COLLEGE OF MEDICINE, DUBLIN.

DR. FRANCIS THOMAS HEUSTON has been elected Lecturer on Anatomy in this flourishing school of medicine, in succession to the late Dr. Loftie Stoney, whose almost sudden death we recorded last week. Dr. Heuston had served for the past three years as Senior Demonstrator in the Anatomical Department, to be the head of which he is now promoted. He graduated as Doctor of Medicine and Master of Surgery in the Queen's University in Ireland in 1878, having become a Licentiate of the Royal College of Surgeons in Ireland in the previous year.

#### ALKALI WORKS.

DR. ANGUS SMITH, Chief Inspector, has presented his nineteenth annual report upon the alkali works of the United Kingdom to the Local Government Board. This inspection has an exclusively sanitary object; and the report shows how widely spread are the various chemical industries, and how important is their effect upon the public health. Dr. Smith has experienced considerable difficulty in bringing all the establishments included in the statutes under direct inspection. There are over a thousand, and in many instances they are small and isolated. So far as regards the escape of acid in the smoke from chimneys, the maximum prescribed is not now being exceeded. Condensing machinery has of late years been so greatly improved that the various works, and especially those manufacturing on a large scale, have no difficulty in complying with the present legal obligations, notwithstanding their stringency. He directs special attention to the "waste heaps" (alkali waste) which disfigure the towns of St. Helen's and Widnes, and which have for many years been a perplexing sanitary problem. The nuisance is so serious that he feels disinclined to prolong the responsibility of withholding the compulsory clauses of the Act, and, without reservation, expresses the opinion that the Local Government Board should bring the matter to an early issue.



## THE PUBLIC HEALTH.

THE Registrar-General's return for the week ending September 1 shows that the annual rate of mortality in twenty-eight great towns of England and Wales averaged 19·8 per 1000 of their aggregate population. The six healthiest places were Halifax, Norwich, Bristol, London, Derby, and Hull. In London the annual rate of mortality from all causes, which had been equal to 19·0 and 17·9 per 1000 in the two preceding weeks, declined to 17·0 last week. The 1292 deaths included 4 from small-pox, 57 from measles, 40 from scarlet fever, 19 from diphtheria, 27 from whooping-cough, 1 from typhus, 21 from enteric fever, 1 from an ill-defined form of continued fever, 74 from diarrhoea and dysentery, and 9 from simple cholera. Thus, 253 deaths were referred to these diseases—95 below the corrected average number in the corresponding weeks of the last ten years. The deaths from diarrhoea and dysentery were 111 below the corrected average; 63 were of infants and children below five years of age. The deaths of 7 infants and children, and of 2 adults, were referred to simple cholera or to choleraic diarrhoea. In the Outer Ring 29 deaths from diarrhoea were registered.

## INTOXICATING LIQUOR DRINKING.

THE report of the Commissioners of Inland Revenue shows that during the year ending March 31 last the revenue from excise duties upon spirits decreased £62,296, and upon beer £130,451. The quantity of spirits consumed as a beverage decreased in England by 294,270 gallons, and in Scotland by 46,254 gallons, but in Ireland there was an increase of 245,667 gallons; thus the net decrease for the United Kingdom was 94,857 gallons. The Commissioners remark on the decrease in the consumption in England and Wales that it appears comparatively small, "but it becomes more significant of altered habits when considered in connexion with the natural increase which must have taken place in the population. There cannot be any doubt that in some localities the spread of temperance principles has already caused a marked diminution in the consumption of intoxicating liquors, and the tendency is still increasing. On the other hand, it is remarkable to find in Ireland, in spite of an estimated decrease of population, an increased consumption of 245,667 gallons."

## THE MORBID ANATOMY OF PLUMBISM.

THE importance of lead as a therapeutic agent and as a cause of disease appears to justify the repetition of experimental observations of its effect on animals. Maier has accordingly undertaken the investigation of this question, and the results of his observations, which, as far as they have gone, relate to the stomach and intestine only, are recorded in *Virchow's Archiv*, xc., page 455, and *Centralblatt f. d. med. Wiss.*, 1883, page 358. Maier dosed rabbits and guinea-pigs, either continuously or intermittently, with 0·2 grammes of acetate of lead daily, and determined the occurrence of the usual symptoms of plumbism, which we need not describe. On post-mortem examination of the alimentary canal, the effects of lead were found to extend to all the structures composing its walls. The epithelium of the surface and of the glands was granular and swollen, or actually fatty in the more chronic cases. The muscular and adventitious coats of the middle-sized and small arteries were pervaded by leucocytes, which were undergoing degeneration; small aneurysms formed; and hæmorrhages and superficial ulcerations were the results, with secondary clotting in the veins and further softening. The intestinal vessels presented less severe lesions than did the gastric, from the more free anastomosis between the former. Especially

important were the changes in the nervous structures of the alimentary canal. The ganglia were found to be sclerosed, the cells atrophied, and even the nerve-fibres, though more resistant, became diseased; the whole condition suggesting an explanation of the colic characteristic of the action of lead. Lastly, the connective tissues throughout the gastrointestinal wall presented evidence of active growth, as they did in the kidneys, liver, and central nervous system of the same animals. The question is, Which of the associated changes is to be considered the primary effect of lead—the connective-tissue growth, or the disturbance of the nutrition of the protoplasmic structures, represented by granular and fatty metamorphosis? Maier appears to regard the protoplasmic change as the first event, the connective tissue hyperplasia as the result of this; at the same time, he considers that the resulting cirrhosis or sclerosis gives rise to further atrophy of the active protoplasmic elements, including the muscular fibres. The ultimate effects of vascular lesions, in the shape of ulceration, hæmorrhage, etc., are obvious.

## THE ENGLISH REGISTRAR-GENERAL'S RETURN, JUNE QUARTER, 1883.

THE quarterly return of the English Registrar-General for the second or June quarter of the present year shows that the number of births registered in England and Wales during that period was 228,703. The annual birth-rate, which was equal to 34·3 per 1000 of the estimated population, was 1·6 below the mean rate in the ten preceding corresponding quarters, and showed a further decline from the rates recorded in recent corresponding quarters. The lowest country birth-rates were 27·8 in Herefordshire, 28·8 in Devonshire, and 29·1 in Dorsetshire; the highest rates were 38·9 in Nottinghamshire, 39·2 in Staffordshire, and 40·7 in Durham. In the twenty-eight great towns the birth-rate averaged 35·2 per 1000, and was 0·9 above the general English rate. The rate, which did not exceed 34·2 in London, averaged 36·1 in the twenty-seven provincial towns. In these provincial towns the rates ranged from 27·7 in Huddersfield, and 30·2 both in Plymouth and Halifax, to 38·9 in Leicester, 40·5 in Blackburn, 41·3 in Nottingham, and 42·3 in Sunderland. The *natural* increase of the population of England and Wales, or the excess of births over deaths, which had been 104,492 and 102,351 in the second or June quarters of 1881 and 1882, declined to 94,920 in the quarter under notice. During this second quarter of 1883, 133,783 deaths were registered in England and Wales, and were equal to an annual rate of 20·1 per 1000 of the estimated population. This death-rate was 0·3 below the average rate in the ten preceding corresponding quarters, but exceeded by 1·5 and 1·1 respectively the exceptionally low rates in the second quarters of 1881 and 1882. This increase in the death-rate would appear to have been due to the unseasonably low temperature that prevailed in March, rather than to the prevalence of a lower sanitary condition, inasmuch as the death-rate from zymotic diseases was exceptionally low. Thus, the total number of deaths ascribed to these latter causes was 12,632—equal to an annual rate of 1·89 per 1000,—which was 0·51 below the average rate in the ten preceding corresponding quarters. The zymotic rate of this June quarter was, in fact, lower than that recorded in the second quarter of any year since 1870, except in 1881, when the rate was only 1·87. Whooping-cough, measles, and scarlet fever were the most fatal of this class of diseases, and small-pox was the lowest on the list, with only 224 deaths. Of these, 30 occurred in London and its Outer Ring of suburban districts, 14 in the Home and Eastern Counties, 51 in Staffordshire, 9 in Birmingham, 13 in Lancashire, 8 in Leeds, 45 in Durham,



and 23 in Newcastle-upon-Tyne. The number of uncertified deaths during this quarter showed a slight decline on that recorded in recent quarters, being 5303, or 4.0 per cent. of the total mortality. The proportion of uncertified deaths did not exceed 1.1 per cent. in London, whereas it averaged 4.5 per cent. in the rest of England and Wales. Excessive proportions of uncertified deaths have almost invariably been recorded in Oldham and Halifax in recent quarters, as also in Wales. During the period under notice the numbers were 11.1 in South Wales, and 11.4 in North Wales. The number of hours of bright sunshine recorded at Greenwich during the quarter was 474.6, and was 4.5 above the average number recorded in the six preceding corresponding periods.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-fourth week of 1883, terminating August 22, was 1051 (563 males and 488 females), and of these there were from typhoid fever 49, small-pox 4, measles 20, scarlatina 2, pertussis 19, diphtheria and croup 28, erysipelas 5, and puerperal infections 4. There were also 34 deaths from acute and tubercular meningitis, 183 from phthisis, 25 from acute bronchitis, 38 from pneumonia, 143 from infantile athrepsia (49 of the infants having been wholly or partially suckled), and 40 violent deaths (33 males and 7 females). The return for this week notably exceeds that of the preceding, and is also above the weekly mean of the preceding four weeks, which is 981. The increase is chiefly due to typhoid fever, the deaths from which increased from 38 to 49, to phthisis (183 in place of 161), and to diseases of the cerebro-spinal apparatus (109 instead of 79). The births for the week amounted to 1319, viz., 662 males (477 legitimate and 185 illegitimate) and 657 females (474 legitimate and 183 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 49 males (32 legitimate and 17 illegitimate) and 46 females (34 legitimate and 12 illegitimate).

#### LOCALISATION OF MOTOR AREAS IN THE BRAIN.

UNDER the above heading at page 616 we noticed the first of a series of papers by MM. Charcot and Pitres on the non-motor districts of the cerebral cortex. In their second communication (*Revue de Médecine*, June, 1883) they take into consideration destructive lesions of the motor area, the object being to prove that these always produce permanent paralysis, and lead ultimately to contracture of the paralysed muscles and secondary degeneration of the spinal cord. The conclusions of their paper may be summarised as follows:—1. Cortical lesions capable of giving rise to total permanent hemiplegia are always situated in the motor area, and they occupy the whole or, at any rate, a good part of the surface of this motor area. 2. Lasting paralysis of the arm and leg on one side, the face being unaffected, is due to lesion of the upper half of the cortical motor area of the opposite hemisphere. 3. Paralysis of the face and arm on the same side, the leg being unaffected, denotes a lesion of the lower half of the cortical motor area of the opposite hemisphere. 4. The cortical motor centre which governs voluntary movements of the face is situated at the lower end of the opposite ascending frontal convolution. 5. The cortical centre governing movements of the arm is situated at the middle third of the ascending frontal convolution, or perhaps a little above this. 6. The paracentral lobe is the seat of the centre for movements of the leg; and 7. Destructive lesions, even when very extensive, if situated in the non-motor area, never give rise to secondary degenerations, whilst destructive lesions of the motor area are always accompanied after

the lapse of a certain period of time by descending changes in the pyramidal tract. In a subsequent communication (August) to the same periodical the authors study the relations of partial epilepsy with cortical lesions. The following extracts will sufficiently express their views:—"When during the interval between his attacks a patient who suffers from epileptiform convulsions shows no signs of any permanent paralysis, the lesion is either quite superficial, or else it is situated in the neighbourhood of the motor area. When, on the other hand, the patient during the interval between his seizures is permanently hemiplegic or monoplegic, we should infer that there is situated in the motor cortical area a more or less limited destructive lesion. From the standpoint of diagnosis we must not take into account those transient post-epileptic paralyses which come on immediately after a seizure, last from some minutes to a few days, disappear spontaneously at the approach of a fresh seizure, and are far from being uncommon. They appear to be the result of temporary exhaustion, of fatigue of the nerve-elements after the exaggerated activity which has provoked the attack, and have no diagnostic value as regards the locality of the cortical lesion determining the convulsions. . . . It is, then, the paralysis which must determine the diagnosis. . . . The existence of epileptiform convulsions of the Jacksonian type ought to make us think of a cortical lesion, and the coexistence or absence of any permanent paralysis ought to tell us whether or not the lesion is situated in the area of the motor convulsions."

#### SANITARY PROSECUTIONS IN GLASGOW.

THE Sanitary Department of the city of Glasgow last week obtained a conviction at the Central Police-court against a woman whom they charged with having contravened Rule 12 of the regulations respecting lodging-houses, by failing to properly wash the floors of every apartment in her house. The accused pleaded guilty, and a fine of 5s. was imposed, failing which she should undergo four days' imprisonment. On the South Side of the city a proprietor was charged with allowing the drainage in his property to be in a defective state. The defendant, it was stated in court, absolutely refused to carry out the necessary repairs which had been suggested on a previous occasion. The magistrate before whom the case came gave instructions for a suitable party to report on the state of the drainage, and to state what repairs were found necessary. In another case a "factor" was fined a guinea for a similar offence. At present fever (typhus and typhoid) are very prevalent in Glasgow, and it is a serious matter for the inhabitants when proprietors and agents refuse to keep their properties in a proper state of repair or to assist the sanitary officers in their arduous duties in doing what they can in conserving the health of the community.

#### THE LONDON WATER EXAMINER'S REPORT FOR THE MONTH OF JULY, 1883.

THE agitation on the subject of the water-supply of the metropolis, which has now been going on for some years, must sooner or later produce results which will be beneficial to the public in more ways than one. It may be accepted as a good sign that some feeling of this kind has evidently influenced the official mind, since the monthly report of Colonel Bolton for July last commences with a very valuable piece of information never before given; this is no less than a detailed statement of the sources from whence the various metropolitan water companies derive their supply of water, and the proportion furnished by each of them. For the month of July last, the report informs us, these proportions were nearly as follows:—From the river



Thames and certain springs in the Thames valley about fifty parts of the whole; from the river Lea and certain springs in the Lea valley, about thirty-eight parts of the whole; from the eight wells in the north of London, about six parts; and from the ten chalk wells in the south of London, also about six parts. It will thus be seen that at the present time no less than 88 per cent. of the metropolitan supply is river-water, and some idea may be formed of the importance of keeping our two great sources of supply as free from pollution as possible. During the month of July, Colonel Bolton says, the Thames water, previous to filtration, was good in quality on every day but two (the 5th and 6th), when it was bad. The intakes are closed as much as possible to avoid taking in water during the floods, but the Southwark and Vauxhall Water Company, being unprovided with reservoirs for subsidence, have to draw from the river at all times, and consequently their filter-beds soon become choked up. It may be remarked that Colonel Bolton has been calling attention to this fact in each monthly report issued by him for a long time past; but presumably he has no power to take any action in the matter, or such a state of things would, before this, have been remedied. The present report further contains a copy of the regulations made under the Metropolitan Water Act, 1871, and points out that if the portion relating to cisterns and waste-pipes was more strictly followed out, many of the evils now complained of would be prevented. As usual, the report of Dr. Frankland, F.R.S., on the quality of the water after filtration, is added to that of Colonel Bolton. The samples analysed by him are not furnished direct by the different companies, but are drawn at certain fixed points within the radius of each one's supply. He remarks that during July the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was again, for river-water, unusually free from organic matter, and the water was in each case efficiently filtered before delivery. The water abstracted from the river Lea and sent out by the New River and East London Companies was also exceptionally free from organic impurity, and superior to any of the Thames waters; whilst the deep-well water distributed by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health was of its usual excellent quality for drinking, and in freedom from organic matters surpassed any of the river-waters examined.

#### ON THE SUTURE AND TRANSPLANTATION OF NERVES.

DR. E. G. JOHNSON, of Stockholm, in a long and interesting paper in a recent number of the *Nordiskt Medicinskt Arkiv*, after referring to the literature of the above subject, gives the results of his own experiments made in the laboratory of the School of Medicine at Stockholm. In sixteen cases he reunited, by means of a catgut suture, the entirely divided ends of the sciatic nerve. The re-establishment of the nervous influence by the cicatrix was observed on the fortieth day in the experiments on rabbits, on the thirty-first day in those on dogs, and on the twenty-fifth on fowls. In twenty experiments on rabbits the two ends of the sciatic nerve were not reunited, and the passage of the nervous influence by the cicatrix in these cases was not observed till after sixty days. The presence or absence of this influence was indicated by the excitation of the nerve, above the cicatrix, by means of a weak induction current or by mechanical excitation. In the experiments on rabbits, microscopical examination showed on the fortieth day in cases of suture of the nerve, and on the sixtieth day in those of simple section, bundles of amyelinic nervous fibres passing across the cicatrix from the central extremity of the nerve to its peripheral parts. In reference to the transplantation of

nerves, Dr. Johnson has succeeded in inserting, in the deficient intervals of the sciatic nerve of two fowls, portions of the sciatic nerve of other fowls, and in the sciatic nerve of a third fowl a portion of the sciatic nerve of a rabbit. The first two fowls were killed at the end of twenty-eight days and thirty-four days respectively, and the third after twenty-three days. The portions of the transplanted nerve were perfectly grafted on the original nerve, but the nervous influence through the cicatrix did not exist in any of the cases. Microscopical examination exhibited a very evident contrast between the portion of the central nerve where the degeneration was but slight, the intermediate portion where the myeline was very much subdivided, and the peripheric portion where scarcely any traces of myeline were to be found.

#### SOCIAL SCIENCE ASSOCIATION.

THE programme of the forthcoming Congress of this Association, to be held at Huddersfield from October 3 to 10, is complete as regards the "special questions"—i.e., the questions, of which there are three in each department, formulated by the Council for special discussion. Among these, in the Repression of Crime Section, papers will be read by Mr. C. Meymott Tidy, M.B., and Mr. G. Lathom Browne, on the question, "Can the law regulating the sale of poisons be amended so as more effectually to prevent their employment for criminal purposes?" In the Health Department, the question, "Is the modern system of education exerting any deleterious influence upon the health of the country?" will be introduced by Dr. Clifford Allbutt and Mr. J. Hepburn Hume. The desirability of taking any, and if any what, further measures to prevent the spread of zymotic diseases through the milk-supply of our towns, will be dealt with in papers by Mr. Francis Vacher, F.R.C.S., Dr. Britton, and Mr. Ernest Hart; and Dr. Norman Kerr and Mr. Samuel Knaggs, M.R.C.S., will read papers on the question, "Is it desirable to amend or extend the Habitual Drunkards Act, and, if so, in what direction?"

#### BACTERIOSCOPIC EXAMINATION OF WATER.

SOME time ago Dr. R. Koch suggested the application of the method of pure cultivations to the detection of bacteria in water, but since he found them always present, and in enormous numbers, it seemed as if little practical good would come of it. He has, however, succeeded in giving it a quantitative character, and, in the recent inquiry into the alleged deterioration of the waters of the Spree by the effluent of the Berlin sewage-farms, has shown that valuable inferences may be drawn from its indications. After a preliminary examination of the water in question, firstly with a power of 100 diameters, and then with one of 500, he evaporates a drop on a glass cover, stains it with methyl blue, and mounts with Canada balsam. Having thus formed a rough notion of the relative abundance of bacteria, he takes a quantity varying from ten drops of distilled water down to  $\frac{1}{1000}$  drop (obtained, of course, by dilution) in the case of the foulest sewage, and intimately mixes it with one cubic centimetre of his gelatinous cultivating fluid, which, having been sterilised by boiling, is not yet cooled down quite to the solid state. This is then spread out on a part marked out on a glass slide, previously exposed to a flame, where it sets into a thin film. The slide, covered by a bell-glass enveloped in moistened blotting-paper, is kept in a warm room for thirty to sixty hours. Every bacillus or micrococcus capable of development will be by this time found to have given rise to a separate colony, unless the original germs were in actual contact,—these colonies appearing as cavities of various sizes and hues in the solid





gelatine, which at these points has been liquefied by their vital action. A glass cover, ruled in square centimetres, is laid over the gelatine, the number of vacuities in several of the spaces counted with the help of a glass of about thirty diameters, and the mean taken. It is then easy to reckon, first the number of viable bacilli in the sample drop, and next in a cubic centimetre of the original water. A few examples will show the practical employment of the process. A cubic centimetre of pure distilled water was estimated to contain four to six, derived from the air or admitted by other accident; water taken direct from the sewer, 38,000,000; the effluent from the filtering-beds, 87,000; the same mixed with that of the Wuhle (in which chemical analysis showed it to have undergone considerable oxidation) at the point where this stream discharges itself into the Spree, 52,000; the Spree above this point, 115,000, and below, 118,000; the water at the Stralau pumping-station, before filtration, 125,000, and after filtration, 120; that of the Rummelsburger See (another of the water-supplies of the city), before filtration, 32,000, and after, 100; and, lastly, good spring-waters, 50 to 80. Of course the examination does not reveal anything as to the virulence or otherwise of the bacteria themselves; but, knowing, as we do, that they live and multiply in and at the expense of organic matter—in which they set up all putrefactive changes, including nitrification,—we can appreciate the meaning of the reduction effected in their number by filtration, in the case of the sewage from 38,000,000 to 87,000, and of the potable water at Stralau from 125,000 to 120. Dilution of the effluent with the water of the Wuhle and its course therewith for a few miles still further reduced them from 87,000 to 52,000. Even before this the effluent contained fewer than the water of the Spree, on which it had no appreciable effect. The number (32,000) in the Rummelsburger See, a natural lake preserved from external pollution, presents a striking contrast to that of 120 in the filtered river-water at Stralau. And we may conclude that water used for drinking should not contain a number much greater than this. All these indications, we may add, were borne out by the chemical analysis.

#### VITAL STATISTICS OF IRELAND FOR THE SECOND QUARTER OF 1883.

In the quarterly return for Ireland, published by authority of the Registrar-General for that country, it is shown that during the three months ended June 30 last there were registered in the 800 registrars' districts 31,953 births (a number equal to an annual birth-rate of 25.5 in every 1000 of the estimated population) and 27,288 deaths (representing an annual rate of 21.8 per 1000). In England, during the same quarter, the birth-rate was 34.2 in every 1000 of the estimated population, and the death-rate 20.0 per 1000. The birth-rate in Ireland for the quarter under notice was slightly under the rate for the corresponding quarter of 1882, and also under the average for the second quarter of the five years 1878-82. The deaths were above those registered in the corresponding quarter of 1882, to the extent of 4414; the death-rate was 3.8 per 1000 above the rate for that quarter, and 1.8 over the average for the second quarter of the five years 1878-82. The increase in the death-rate for this June quarter, as compared with the average of the corresponding quarter of the last five years, is, the return says, due to the excessive mortality amongst the old, the excess over the average in the deaths at all ages being 1260, and the increase in deaths at sixty years and upwards amounting to 1289. The deaths from one or other of the principal zymotic diseases amounted to 2062, being 131 under the number for the preceding three months, but 296 over the number for the June quarter of last

year. The annual rate per 1000 of the population, represented by the deaths from these causes, was 1.6, against 1.7 in the preceding quarter, and 1.4 in the second quarter of 1882. Ten deaths from small-pox were registered in Belfast, and 2 in Glennamaddy Union, but none in any other locality. Measles was prevalent throughout the greater part of the country, but on the whole the mortality was comparatively light, the total number of deaths recorded being 225. The mortality from whooping-cough, exceptionally heavy in the preceding quarter, showed but a slight decrease, as, although the disease declined in many parts of the country, it was very prevalent in portions of the province of Connaught, and was altogether responsible for 491 deaths. During the fourth quarter of 1882 there were 409 deaths registered from scarlet fever; in the following quarter the number fell to 342, and for the quarter under notice it slightly declined to 337. The total number of deaths from typhus recorded in this second quarter showed no appreciable variation from that for the preceding three months, or from the number for the second quarter of last year, and is returned as 282. The deaths from diphtheria, enteric fever, and diarrhoea were under the average for the June quarter, markedly so in the case of the first-named; and, as usual, a few deaths—5 in all—were attributed to simple cholera. According to the returns of vaccination received for the second quarter of 1883, there were 34,838 persons successfully vaccinated; in 2539 cases the operation was postponed, and 74 children were reported as insusceptible of vaccination. The deaths of 1735 unvaccinated children under three months old were registered during the quarter, making a total of 39,186 children with regard to whom particulars as to vaccination were obtained. The return points out that as children in Ireland under three months old are not required by law to be vaccinated, the number of vaccinations performed in any particular quarter must not be expected to agree with the number of births registered during that quarter.

#### THE HOLDING OF WAKES.

At the Athlone Petty Sessions, on Saturday, September 1, a man named Michael Brazil appeared on a summons issued at the suit of the Sanitary Authority for permitting, contrary to Section 142 of the Public Health Act, 1878, a wake to be held at his residence in Chapel-lane over the body of his child, who had died of an infectious disease. Evidence was given that the man had been officially warned not to allow a wake to be held, as it was an infectious disease but the police afterwards found a number of persons in the house. Another child of Brazil's died from the same cause, and he had allowed a wake to be held. Dr. White deposed that the children died of an infectious disease. The Chairman (Mr. Potts) explained the serious nature of the offence, and said the full penalty of the Act was £5, but as it was the first prosecution of the kind in Athlone, the Court would inflict the mitigated penalty of 10s. It is, we think, to be regretted that so small a penalty was inflicted in this case. The man had been fully warned not to allow a wake to be held, and deserved to be mulcted in a much heavier fine than 10s. The magistrates, in their misplaced leniency towards the culprit, showed very little consideration for those who may suffer through his wilful and wanton disobedience to the law.

It is said there is reason to believe that both the street and the workshops collections for the Hospital Saturday Fund will considerably exceed those of last year. Judging by the increased value of the amount received from some sources, it is conjectured that the street collection will produce at least £3000, and the workshops collection £7000.



THE London Fever Hospital is now connected with the Telephone Exchange. Every facility is thus afforded with perfect safety for making inquiries as to friends in the Hospital, and for communicating with the officials when the ambulance is required. The telephone number of the Hospital is 6637.

THE Mason Science College has made very good progress. During the three years that it has been open the number of students increased from 95 (65 males and 30 females) entered in the first session, to 366 (229 males and 137 females) registered in the session recently ended.

THE Duke of Devonshire has just presented a public block to the Buxton Hospital at a cost of about £500.

## FROM ABROAD.

### EXTIRPATION OF BRONCHOCELE.

AT the twelfth congress of the German Society of Surgery, held recently at Berlin (*Beilage zum Centralblatt für Chirurgie*), there were several papers read relating to this subject. Prof. Kocher, of Bern, in his contribution, stated that according to the statistics of the operations to 1850, including his own operations, there had been 70 excisions with a mortality of 41 per cent.; to 1877 there had been 146 operations with 21 per cent. mortality; and to 1883, 240 operations with only 11 per cent. mortality. Since the 58 cases of his own, which he had formerly published, he had performed 43 operations, with a mortality of 5 per cent. in non-malignant and 25 per cent. in malignant bronchocele, the fatal cases not having been directly dependent upon the operation, but upon complications due to paralysis of the larynx prior to the operation, to accompanying disease of the aorta, and to preceding pyæmia. No example had occurred amongst his last 43 cases of death from hæmorrhage or septicæmia. The execution of the operation has, in fact, become so perfected that even in great bronchoceles all considerable hæmorrhage or injury to the recurrent nerve may be avoided. All ligatures *en masse* are to be discountenanced, and not merely the chief arterial vessels are to be exposed and tied separately, but the principal venous trunks are also to be ligatured before they are divided. It is indeed obvious from injections that the arteries and veins of the thyroid are by no means so irregular in their distribution as is often supposed; and some of the principal veins are as certain to be found as the chief arteries are. In most of the cases chloride of zinc was used, and bismuth was employed as an antiseptic. Tracheotomy should, as far as possible, be avoided, even when the difficulty of breathing is great; for it is an impediment to the carrying out of the antiseptic treatment, and to the restoration of the normal form of the compressed trachea. The removal of one-half of the bronchocele has been followed by very favourable ultimate results; twenty-nine of the patients so operated upon, who have been seen and exactly reported upon, having remained quite well. The remaining half of the tumour has only exceptionally increased in size, and even when it had attained a considerable size it had caused no trouble after the removal of the other half. Of the twenty-four cases of total extirpation, the results were satisfactory only in those cases in which the operation had been executed after the growth of the body had been entirely completed. In all those which were operated upon prior to this period (with the exception of two cases in which relapse took place) a remarkable form of progressive cachexia was induced, which may be termed *cachexia strumipriva*. It is characterised by great anæmia, tumefaction (especially of the face), and a diminution of intellectual activity—furnishing a display of symptoms resembling those of cretinism. The observation of the cretinoid changes which take place after the total excision of bronchocele in young individuals exhibits for the first time the conditions of dependency between cretinism and the thyroid gland.

Dr. A. Wölfler reported on sixty-eight cases of non-malignant bronchocele which had occurred in Prof. von Billroth's clinic with a mortality of 7·3 per cent. He prefers total extirpation, which is not more dangerous than unilateral; and he has met with none of the symptoms of cachexia described by Prof. Kocher in any of seven children who were operated upon fully three to four years since. Tracheotomy, as causing many disadvantages, he thinks should be performed as seldom and as late as possible. Although in most of Billroth's cases tracheotomy was abstained from, there occurred in none of them the stenosis of the trachea which Kocher states he has sometimes met with. In one case death took place immediately from the entrance of air into one of the veins of the neck. Especial care should be taken in tying the lower thyroid vein, as it springs from below the thyroid. Temporary dysphagia and aphonia were not infrequent temporary occurrences after the operation. After the sixty-eight extirpations, tetanus was observed in seven, always appearing during the first week. These all occurred in women, five recovering and two terminating fatally.

### BLEEDING IN LOCAL INFLAMMATION.

Dr. Nancrede, at the fourth meeting of the American Surgical Association, held at Cincinnati under the presidency of Prof. S. D. Gross, read a paper on the question, "Have we any Therapeutic Means, as proven by Experiment, which directly affect the Local Process of Inflammation?" According to the report in the *Phil. Med. Times* for June 2—

"From a series of experiments on the local vascular and blood changes following the application of irritants to the web of a frog's foot, and the effects upon this traumatic inflammation of the abstraction of blood, he was able to arrive at positive conclusions, and to answer the question in the affirmative—that local bleeding offers advantages in the treatment of local inflammation unequalled by any magistral remedy. He formulated his conclusions as follows:—

1. During the stage of dilated arteries, with increasing rapidity of the current, but little danger of capillary changes with exudation need be apprehended; and here perhaps ergot, certainly arterial sedatives, do good, either directly or indirectly, without blood-letting, by reducing the size of the arteries and the rapidity of the current, thus allowing the veins of the obstructed area time to empty themselves even of an unaccustomed amount of blood. Thus, if vascular pressure changes have taken place, the vessels have an opportunity of returning to the norm.
2. After stasis has occurred, or is occurring, weakening of the heart's action, and a diminished volume of the current, bleeding can do nothing but harm to the inflamed area, although, for the reasons given, it may prevent extension of the inflammation in the circumjacent parts, which are merely in the earliest stages of congestion.
3. The results to be sought, and which are secured by local blood-letting, are removal of the blood on the venous side, so that the vessels can not only empty themselves, but a certain amount of *vis a fronte*—i.e., aspiration—is invoked. This secondarily results not only in a temporary return to the normal on the arterial side, but an increased rapidity, and—here is an important point—lessened force of the circulation. The acceleration of rate, without weakened force of the circulation, would further damage the vessels; instead of which the increased rate of the current merely serves to sweep out the accumulated red blood-cells, the cause of the excess of oxygen, and the consequent cell-infiltration. The vehement current also induces a rapid resorption of the effused liquor sanguinis, at once the stimulator to growth and the food of the cells. The latter advantage is not founded on theory alone, for it is a matter of common observation that the mere amount of blood abstracted produces no sensible effect on an inflamed breast, for instance, but in a few hours the skin, if carefully examined, has become wrinkled, and the whole organ shrunken. This effect is secondary to the loss of blood, and chiefly results from the absorption of the inflammatory exudate.
4. Arterial sedatives in the latter stages are usually inadmissible, except as succedanea to blood-letting, as far as the focus of inflammation is concerned. The surrounding parts, which are merely congested, may be benefited by their exhibition. After bloodletting they act favourably, because, when the



stasis has been overcome, they lessen intravascular pressure, and thus permit the bloodvessels to recover their normal condition. They also alleviate pain by lessening the bulk of blood in the part—i.e., they relieve nerve-pressure."

#### EARLY OPERATIONS FOR MORBID GROWTHS.

At the same meeting, Prof. Gross read a paper "On the Value of Early Operations in Morbid Growths." The object of the paper was stated to be the placing the value of early operations for the removal of morbid growths in a stronger and clearer light than any in which it had hitherto been presented. The reasons for early removal are (1) the less risk of shock and hæmorrhage; (2) the more effectual riddance of the diseased structures; (3) the diminished probability of septicæmia or blood-poisoning; (4) the avoidance of unsightly scars; and (5) the less risk of recurrence of morbid action, either at the seat of operation or in other parts of the body. The local origin of morbid growths is now generally admitted, but an hereditary tendency to the development of such neoplasms was recognised not only as regards malignant, but also in benign growths, such as warts and sebaceous cysts, which have been observed in three generations. Morbid growths, tumours, and neoplasms are the products of perverted nutrition, in which a comparatively few cells native to the part are replaced by colonies of new cells, of which the product, or new growth, is mainly composed. He states that "all morbid growths are developed, directly or indirectly, under the influence of inflammatory action, the result of external injury, or, as is more frequently the case, of some mechanical obstruction, causing, in the first instance, congestion of the part, and this in turn inciting action and inflammation; both leading, sooner or later, to abnormal cell-growth, cell-formation, or cell-development. It is in this way, and this way alone, that we can satisfactorily explain these morbid growths, both benign and malignant, which, as the phrase goes, arise without any assignable cause. One of the most simple of all tumours, thesebaceous, is formed under the irritating influence of its own natural secretion retained by the closure of its natural outlet. Obstruction of a lacteal duct is, there is no doubt, a frequent starting-point of scirrhus of the mammary gland. There is not a surgeon of any experience anywhere who has not occasionally met with cases of carcinoma which are due, directly or indirectly, to the effects of local injury." With these fundamental principles in view, the importance of early operation is manifest, and experience shows its necessity.

Referring to the difficulty of diagnosis, the advice was given, in cases of doubt, to seek consultation rather than to allow the growth to develop, thus increasing the danger to the patient. In a case of carcinoma of the breast especially was the surgeon warned against the waiting for the development of secondary growths in the axilla, and till involvement of the general health occurs. Patients should be taught the risk of delay. Not only should growths be removed early, but the extirpation should be done as thoroughly as possible. If this cannot be done, it will be better, in advanced cases of carcinoma particularly, not to meddle with the growths at all, except to remove an offensive ulcerating mass, and to substitute for it a clean wound. The longer the knife is withheld, the greater danger will there be that some of the cancer-cells will be left behind, which will subsequently serve as new centres of morbid action. Sarcomata are especially apt to return in the internal organs, and the worst form is the round-celled. Any rapidly growing tumour is, as a law, a bad subject for successful surgical interference. Even benign growths of rapid development cannot be extirpated too soon. As illustrations of this principle may be adduced cystic growths of the ovary, chondromous fibromas, and osteomas, and, as analogous illustrations, stone in the bladder and pneumonia, in which the contrast between early and late treatment is very marked.

**ECZEMA OF THE SCALP IN INFANTS.**—Dr. Lassar employs the following formula:—Salicylic acid one, tincture of benzoin two, and vaseline fifty parts. A certain quantity of this is smeared over the scalp two or three times a day, after having washed the infant's head with soap-and-water. To soften the crusts and facilitate the cleansing of the scalp Dr. Lassar recommends the employment of oil containing 2 per cent. of salicylic acid.—*Gaz. Méd.*, August 18.

#### ANEURISM OF THE AORTA IN CHINA.

DR. P. MANSON'S Report on the Health of Amoy for the half-year ended September 30, 1881, contains the following cases, with curious and instructive information on the frequency of aneurism of the aorta among foreigners in China.

*Aneurism of the Ascending Aorta.*—The first of the following cases of aneurism occurred in the person of a member of the Customs outdoor staff, who had recently arrived from Hankow. Some weeks after his arrival he consulted me about a chronic irritation of the fauces which had troubled him for about two years, and for which he had been trying a variety of local applications. He also complained of slight attacks of what he called asthma, coming on especially at night, and of some breathlessness experienced on going upstairs. I failed to detect any disease in his throat, and repeatedly examined his chest, with the possibility of aneurism present to my mind, but could detect no objective symptoms whatever. On May 22, feeling perfectly well, he went out riding with some friends. He had ridden but a little way, and got about one hundred yards in advance of his party, when he was seen suddenly to drop from the saddle and fall on his face in the sand. He breathed heavily, his face became black, and in a few minutes he died.

A post-mortem examination was made about four hours after death. The pericardium was distended with blood-clot and serum. An aneurism—sacculated, and with a large opening into the artery, extending from the semilunar valves nearly as far as the origin of the innominate—had burst into the pericardium by a minute rent behind the appendix of the right auricle. The aneurism—about the size of a small orange—sprang from the lower and back part of the artery, and pressed slightly on the trachea just above its bifurcation, but had caused no erosion or ulceration. There were many patches of atheroma along the aorta; these could easily be turned out with the finger-nail after stripping off the inner coat. The patches increased in number, size, and degree of degeneration in proportion to their nearness to the aneurism. The inner surface of this was rough and irregular from atheromatous deposits, some of which were much eroded, and in their ragged, ulcerated-looking centres presented a dark red staining. In some places this process had so weakened the walls of the tumour that small subsidiary aneurisms had formed—little pouches with narrow openings hardly admitting the tip of the little finger. There were at least three such baby aneurisms, two of them adherent to the auricle or pericardium. The rent in the wall of the aneurism was very small; but, besides that which had caused death, there was a second, much more extensive, not, however, penetrating all the walls of the sac, but dissecting them up to a considerable extent. There were no laminated coagula, nor, beyond a certain amount of thickening in the tissues around the tumour, any attempt at spontaneous cure. The origin of the innominate was barely involved. The heart was quite healthy; lungs somewhat emphysematous; liver large and full of blood. The dissection proceeded no further. This man, though considerably over forty, was active, in good general health, very temperate, and he told me he had never had syphilis.

*Aneurism of the Transverse Aorta.*—A sailor, aged about thirty-one, active, muscular, and temperate, consulted me early in March about a cough that had troubled him for some time. He said he caught a bad cold early in January; that towards the end of that month, once or twice, when exerting himself, his wind failed him; that during February he had several similar attacks of breathlessness; that previously he had been treated for specific disease—had had iritis, and some periostitis about the sternum and ribs; and that last year he suffered much from pains in the head and rheumatism. Just before my examination he had been walking up a rather steep road, and I observed that his breathing was much oppressed. There was no expectation with the cough. Examination failed to elicit any distinct sign of thoracic disease, although, owing to my suspicion of aneurism, this was made with the greatest care. I saw him again about a week later, and then heard for the first time a distinct, soft, systolic bruit over the second and third intercostal spaces, just to the left of the sternum. At the beginning of April I saw him again. He told me that he had



had several very severe attacks of dyspnoea while at sea, and had been much troubled at times with paroxysms of coughing, unaccompanied by expectoration. It was possible now to diagnose thoracic tumour, probably an aneurism. Pressure symptoms had developed; he had difficulty in swallowing, pain behind left shoulder, and a husky, raucous voice and breathing. Slight dulness on percussion could be made out over the second left cartilage; bruit was audible here also, and could be traced along the course of the vessel, and could also be made out posteriorly. There was a slight heaving movement of the sternal end of the left clavicle and one or two of the upper ribs; and in addition to these symptoms the breath-sounds of the left lung were decidedly feebler than those of the right.

The man was sent to bed, and kept as much as possible in the recumbent position. His food was restricted, and only a very small allowance of fluid permitted; and iodide of potassium, in doses rapidly increased to a drachm, was taken three times a day. Great relief followed this treatment. By the middle of June cough had entirely ceased, the difficulty in swallowing and pain in the shoulder had disappeared, and the heaving at the sternal end of the left clavicle could hardly be detected. Before this, however, he had hawked up on three or four successive mornings small quantities of rusty bloody mucus. He was so well that arrangements were made to send him home, with the view of continuing the treatment there among his relatives. But ten days before his death a severe attack of coughing was brought on by a piece of bread "going the wrong way," and next day I observed that throbbing and heaving had returned. Three days afterwards his voice became very husky, and he had an alarming attack of orthopnoea. These attacks recurring frequently, and provoked by the slightest movement, as even by swallowing, brought about his death by exhaustion on July 2.

On post-mortem examination, an aneurism the size of a goose's egg, with an orifice the size of half-a-crown, was discovered springing from the under and back part of the distal half of the transverse aorta. The orifices of the innominate and left carotid and subclavian were not involved. The walls of the aneurism were strengthened everywhere by an extensive deposit of laminated dirty yellow fibrine, which could be peeled off in long strips, and was intimately connected with the vessel. In some places it was quite three-quarters of an inch in thickness. Its inner surface was very irregular, and stained with blood. Half an inch above the bifurcation an aneurismal mamilla projected into the lumen of the trachea. The little tumour appeared to be covered by mucous membrane only. It was rough, blood-stained, and looked as if on the point of rupture. There was some fibrine strengthening it, but this appeared to be the weakest point in all the aneurism. About three-quarters of an inch above this mamilla was another but smaller projection the size of a B.B. shot; its surface was smooth and much healthier-looking than the other. There was great abundance of atheroma in the arch of the aorta. The lungs were healthy. None of the other viscera were examined.

Notwithstanding the fatal issue of this case, the rapid amelioration of symptoms and the extensive deposit of fibrine have impressed me very favourably with the iodide of potassium treatment of aneurism.

*Remarks.*—As a result of a good many years' experience and more than one unpleasant surprise, I have formulated for myself two rules which I can confidently commend to anyone commencing practice among foreigners in China. First, given a *non-febrile* case in which persistent symptoms (no matter how trifling) point to disease in the chest (especially if there is laryngeal irritation), and the cause for which cannot be readily made out, suspect aneurism of the aorta, and carefully and repeatedly examine for this. Secondly, given a *febrile* case of some standing in which symptoms (no matter how trifling) point to disease in the abdomen, the exact nature of which cannot readily be diagnosed, suspect abscess of the liver, and carefully and repeatedly examine for this. Those who have practised in China for any length of time become thoroughly impressed with the extreme frequency of aneurism of the aorta and abscess of the liver among foreigners, and hardly ever approach the diagnosis of an obscure case without being on their guard about these two diseases. But, unless impressed by some such rule as I have formulated, the novice, with only European experience to guide, or rather mislead, him,

is very apt to overlook these important possibilities, and may have them afterwards very unpleasantly impressed on him. A pulsating tumour bulging out from the thorax, or a fluctuating swelling in the region of the liver, are easily recognised and diagnosed; but it is seldom indeed, unless when disease has advanced so far that treatment has become entirely hopeless, that the aneurism or the abscess declares itself so openly.

## REVIEWS AND NOTICES OF BOOKS.

*Traité Pratique des Accouchemens.* Par le Dr. A. CHARPENTIER, Professeur agrégé à la Faculté de Médecine de Paris, ex-Chef de Clinique d'Accouchements de la Faculté. Tome premier. Avec une planche chromo-lithographiée et 333 figures intercalées dans le texte. Paris, 1883. Pp. 1056.

*Practical Treatise on Midwifery.* By Dr. A. CHARPENTIER, etc., etc. Vol. I. With a chromo-lithograph and 333 illustrations.

THIS book we believe is, at the time we write, the latest complete treatise on the subject. It has a distinct character of its own. Briefly, we may say that we do not know any work which contains such an amount of information as to the literature of the subject, and the different opinions which have been and are held upon controverted topics. It is scarcely possible for one man to write a book which shall contain a notice of every contribution to our knowledge that has been made; and in this elaborate work the French School is, as one might have expected, more fully represented than any other. But the labour of compilation is, on the whole, so thoroughly done that the book is one which every teacher of midwifery should have on his shelves. The defect of the book is that the richness of his material appears to have been almost too much for the author's power of digestion; the reader is too much left to take his choice between opposing views; rows of figures, sometimes seeming to contradict one another, are quoted without much, if any, attempt to estimate their relative value or explain their want of exact agreement. These faults make the treatise less suitable for a beginner or for the busy practitioner; but the abundance of quotation and reference makes the book extremely valuable for one who has the leisure and inclination to study the subject with the view not simply of satisfying examiners and meeting the requirements of every-day practice, but of thoroughly mastering all that is yet known about it.

We confine our remarks at present to the first volume, although both are now published. The author conforms to the usual custom in beginning with a minute description, occupying sixty-nine pages, of the anatomy of the pelvis and genital organs. We are inclined to think that dissertations of this kind are more appropriately left to those conversant with anatomical research; and that in a treatise on midwifery it is enough to describe the parts concerned purely from an obstetrical point of view. The next thirty-nine pages are taken up with the physiology of the unimpregnated organs. We doubt whether it is quite exact to state that the rupture of the Graafian follicle is analogous to the bursting of an acute abscess (page 71). Dr. Charpentier carefully avoids committing himself to any opinion as to the significance of the differences in size, etc., of the corpus luteum, or as to the precise changes in the mucous membrane of the uterus during menstruation. The conflicting views of various investigators are given, not very fully, but the author goes no further. We have, however, a very minute account of the structure and development of spermatozoa, a subject which some might have thought it scarcely necessary to include. The next section of the work deals with pregnancy, and comprises 207 pages. The description of the changes which take place in the uterus is very good. The views of Bandl and others as to the behaviour of the cervix during pregnancy and labour are very lucidly given. The distinction between the contractility and the retractility of the uterus is clearly defined. The chromo-lithograph to which reference is made on the title-page illustrates the state of the breasts during pregnancy, but it is not one of the best that we have seen. Dr. Charpentier accepts the view of Tarnier, as to the existence of a physiological fatty degeneration of the liver during pregnancy.



The development of the ovum is described at great length. Here again, Dr. Charpentier follows the almost universal precedent. But so few persons engaged in the practice of midwifery are able to combine with it a pursuit requiring so much time and special knowledge and manual dexterity as that of embryology—the work of which is mainly histological—that we cannot but think that elaborate descriptions of the process of development, and the different views held as to different steps of the process, are out of place in works on practical obstetrics. The anomalies of the umbilical cord are very fully described. The author enumerates certain symptoms occurring during pregnancy and labour, which he states indicate abnormal shortness of the cord. Among these are pain about the fundus uteri, slow progress of the first stage of labour, hardness of the uterus in the intervals of pains. He candidly says that these signs are “hypothetical,” and we are ourselves inclined to doubt the advantage of printing wholly imaginary symptoms such as these. The causes which determine the position of the fœtus in utero are elaborately discussed, the views of different theorists being recapitulated and compared; but between many of them the differences seem to be merely verbal. The diagnosis of the fœtal position by abdominal palpation—a recent improvement in practice which is not yet so widely known as it deserves to be—is very thoroughly given. The fourth of the books into which this volume is divided, deals with natural labour, and comprises 236 pages. The symptoms, signs, and mechanism of the process are described at great length, and, as throughout the book, the opinions of different theorists are quoted and compared. It does not seem to us that the author is quite so successful in his criticisms of, or in his attempts at harmonising, divergent views as to mechanism, as he is when the question with which he deals is one of clinical observation. The alterations in the shape of the head, which have been observed to result from the pressure to which it is subject during labour, are minutely specified. Here, as in most of the mechanical questions, the author quotes and compares, but has not much light of his own to throw upon the matter. As an example of the kind of work in which he is at his best, we would point to the directions (page 397) for diagnosis between the foot and other parts of the fœtus. The advantage of supporting the perineum is a question upon which all accoucheurs are not agreed. Our author, we think rightly, regards the prevention of too sudden escape of the head as the essential object of such support. We cannot, however, agree with him when he says that in those positions in which the occiput enters the pelvis posterior, and does not rotate forward, it is only with the forceps that rotation can be effected. Rectification can often be effected with the hand, and we are inclined to regard this method as the safer. In face presentations with chin behind, Dr. Charpentier advocates rotation of the chin forwards with the forceps; and from this we would also differ, for the same reason. The different methods of extraction in difficult breech cases are very well discussed. The author objects strongly to the so-called Cr  d   method of managing the third stage of labour, the main ground of his opposition being the haste which some have counselled. To express the placenta three or four minutes after the birth of the child is, in our author’s opinion, to anticipate the contractility of the uterus, which, after expelling the child, requires a longer interval of rest. In this objection we believe he is supported by facts, and we have noticed in this journal (volume ii. 1880, page 598) observations showing an excessive frequency of secondary post-partum h  morrhage as the result of the immediate expression of the placenta. The use of an  sthetics during labour is exhaustively discussed, and the author’s conclusions seem to us sound and practical. The effect of the early and late ligature of the umbilical cord, and the subject of the asphyxia of newborn children, with the methods of artificial respiration, are fully gone into. The remainder of the first volume is occupied with the pathology of pregnancy. The course of different diseases—the eruptive fevers, pneumonia, etc.,—when complicated with pregnancy, and their effects upon pregnancy and labour, are described with care. Much industry has been given to this part of the work, which is indeed a most valuable and useful compilation. The weakness of it, speaking generally, seems to us to be that there is too much importance attached to mere nume-

rical statements, the general considerations which go far to explain the figures being apparently not clearly enough perceived. Still, we do not know any systematic work which is such a storehouse of information on these subjects as the one before us. The quotations do not always seem to us selected with judgment—e.g., at page 625 we have a page-long extract from a communication by a Dr. Leven, a clinical sketch which seems to us imaginary and incorrect, and from which Dr. Charpentier expresses his dissent. Why, then, quote it? We are surprised also, seeing how wide is the range of our author’s reading, that in the section upon the complication of pregnancy with heart disease, we find no mention of the admirable work by Dr. Angus Macdonald upon this subject. Our author rejects absolutely, we are glad to see, the *accouchement forc  *. The diseases of the placenta and membranes and of the f  tus are especially fully gone into. The chapter on retroversion of the gravid uterus, on the other hand, is poor. We may point out by the way what is doubtless a clerical omission: in the section on eclampsia we have numerous quotations of much interest from the writings of Peter; but we have looked in vain for a reference which would enable us to study this author’s researches for ourselves. Dr. Mahomed, of Guy’s Hospital, if he should look into this work, will doubtless be amused to find himself quoted under the name of “Mohammed” (page 673). The names of English authors are, indeed, very often incorrectly given; thus we have “Ramsbootham” *passim*. We have not space, however, to continue a detailed examination of this valuable work. It is, as we have said, one which every teacher of midwifery should have on his shelves. If we cannot invariably agree with the author’s judgment, we can throughout admire and wonder at the amount of labour which he has put into the book.

*Handbuch der gesammten Arzneimittellehre (Comprehensive Handbook of Pharmacology)*. By Dr. TH. HUSEMANN, Professor in G  ttingen. Second Edition, in two volumes. Berlin: J. Springer. 1883.

THE appearance of a new edition of a national Pharmacop  ia is in due course followed by revision of the various works on *Materia Medica* or *Therapeutics*, which of necessity take their origin from it. The work before us is designed to form a medical commentary to the latest edition of the *Pharmacop  ia Germanica*, just as the first edition of the same work formed a companion to the first *Pharmacop  ia* of the German Empire.

Two bulky volumes hardly suffice to contain all the material which so ambitious a scheme demands, and the title of “Handbook” becomes a misnomer, but as a complete guide to the science of Pharmacology the book deserves a prominent place amongst standard works of reference on medical subjects.

Following the custom of other writers on this subject, the author devotes the earlier part of his work to the consideration of the theories of physiological action of drugs and the therapeutic peculiarities of individual groups. An exhaustive account of the various means of administering or applying internal and external remedies concludes the first part. To obtain a thoroughly satisfactory classification of the vast array of “*materia medica*” has always been a difficulty with writers on the subject. Objections more or less valid may be raised to any of the arrangements that have hitherto been adopted, and, in the present instance, the author, recognising the difficulties which must beset any attempt at more precise classification, has arranged his work in what he terms “*pharmacological*” order—which may be interpreted as a combination of the physiological with the clinical and chemical methods. The excellent index with which the whole work is provided renders the exact classification of only minor importance. To review in detail the sections of so large a work would trespass far beyond the limits of our available space, and it must suffice that we record the completeness and comprehensiveness of the work, dealing, as it does, not only with the recognised and official preparations, but also the very numerous collection of general and special remedies which are becoming known and employed by physicians and physiologists of repute. Short quotations from the writings of the latter, the names being always mentioned, add to the value of the book as a standard of reference.

With very few exceptions, there appears some account o



all the new discoveries and experiments in pharmacology up to the end of the year 1882.

A useful chapter on antidotes finds a place in the first volume. Besides a general review of the *rationale* of the treatment of poisoning, there is contained in it a valuable discussion of the relative value of certain lines of treatment. Both in this section and in that devoted to the subject of emetics, the use of apomorphia is warmly recommended. Its value has been far more widely recognised in Germany than has hitherto been the case in this country. Especially useful will be found the exhaustive accounts of many of the newly introduced alkaloids. Notably, the description of pilocarpin, its physiological action, and the objections attending its use, gives information which may fairly be called complete to the present date.

As a thoroughly practical and comprehensive work, bearing every indication of trustworthiness, Dr. Husemann's book will prove a valuable addition to the standard works of reference in every medical library in which it may find a place.

*Homœopathy in its Relation to the Diseases of Females, or Gynæcology.* By THOMAS SKINNER, M.D., London. Second Edition. London: The Homœopathic Publishing Company. 1883.

THIS is a work written by a homœopath, and for the public; and such books we do not commonly review. But as the homœopaths are constantly saying that the reason that "allopaths" remain in their blindness is that they do not read homœopathic literature, we have thought it our duty to read this and see if we could pick up any hints from it. The author professes himself able to treat all the diseases to which women are subject *without local treatment of any kind*. If he can show us how to do this, he will be indeed a benefactor; so we read eagerly, hoping to learn. After a good deal of egotistical verbiage, we came at length to some cases. Of one of them we read—"bodily and mental sufferings which were really something awful. In my twenty-seven years of practice I have never come across a worse case. I may have cobbled them before, *I never could cure them until now.*" We studied this to see what might be the nature of the worst case that Dr. Skinner had seen. These were the symptoms—menorrhagia, whites, headaches, pains like labour; *a sinking empty exhausted feeling*; nocturnal salivation; *ill humour both before and during menses*; *dull stupid feeling in head*; *photophobia, worse by sunlight*; *quick nervous temperament*; *sensation as of the movements of a fœtus*; *accumulation of mucus in her trachea all day, but always worse at night.* (The italics throughout are the author's.) This is precisely the kind of case in which we should have expected that homœopathy, or any "pathy" that pleased the patient, would have cured; and if this mixture of hysteria and hypochondriasis is the worst case that the author has seen, we do not wonder at his success. From the reports of such cases we do not get aid in treating the real and serious maladies about which we are consulted.

*Artificial Anæsthesia and Anæsthetics.* By HENRY M. LYMAN, A.M., M.D., Professor of Physiology and of Diseases of the Nervous System in Rush Medical College, Chicago, etc. London: Sampson Low and Co. 1882. Pp. 338.

THIS work may be broadly divided into two parts—one which deals with anæsthesia in general, the other with particular anæsthetics taken *seriatim*. The first part begins with a full account of the history of anæsthesia, from which it clearly appears that the claim of Simpson to the gratitude of mankind is not that of the discoverer of anæsthesia, or even of chloroform. Simpson popularised chloroform; he did nothing more. Dr. Lyman's history of the subject is clear, interesting, and contains the fruit of much research. Then we have a general account of the phenomena of anæsthesia, with their physiological explanations. These chapters, it appears to us, would have been better had the differences in the effects of the different substances used been more emphasised. Although the author generally uses language in a scientific way, we sometimes come across popular phrases which should have been avoided. We ought not to be told, in a scientific treatise, that "the brain seethes" (page 9) when an anæsthetic is administered. Literally, of course, the statement is absurd: as a popular

metaphor it has no exact meaning. The administration of anæsthetics is next described. The author declares strongly against complicated apparatus: a simple towel or bit of lint he considers as safe as anything, and far simpler, easier, and more cleanly. In this we entirely agree with him. Several inhalers are described; but, probably from the unfavourable opinion which Dr. Lyman has of them, his catalogue of these instruments is far from complete. We miss, for instance, Ormsby's ether inhaler—the one to which, in this country, many give the preference. The practical directions given are very good. The section on the accidents of anæsthesia is not so satisfactory; for the author does not distinguish the kind of accident special to each anæsthetic, and, when he theorises, is, like so many of his compatriots, apt to think that when he has put together a fine phrase he has explained something. Here is an example of "words without knowledge which darken counsel":—"Death from syncope is the result of a certain specific disturbance of the nervous equilibrium which should be maintained between the different nervous centres of the body." There is given, however, a useful collection of cases illustrating these accidents, and separate sections, which contain excellent practical directions on anæsthesia in midwifery and in dentistry. We then find an account of the different substances which have been used to procure local anæsthesia. The risk of anæsthesia is next discussed. Dr. Lyman, putting together such statistical statements as he can find, comes to the following estimate of the danger of anæsthesia:—Ether, 1 death in 16,542; chloroform, 1 in 5860. This result, however, he candidly states, is little better than guesswork. The last division of the first of the two sections into which we have said the work may be divided, is a valuable *resumé* of the medico-legal aspects of anæsthesia. The second part of the work consists, as we have said, of chapters, in which each of the different substances that have been employed to produce anæsthesia is considered separately. This forms the larger part of the volume, and is not less interesting and useful than that which precedes it. Considering the work as a whole, we may say that, while it does not show any great originality either in research or in thought, it is a careful and full compilation of facts relating to the subject, put together in a readable fashion, and connected by remarks which show the author to be a physician of extensive knowledge and sound judgment.

*The Alienist and Neurologist*, July, 1883.

THE editor of this journal, Dr. Hughes, of St. Louis, leads off with an excellent article on Simulation of Insanity by the Insane, an occurrence by no means so rare as might be supposed. Although the insane are, contrary to popular notions, often well aware of their own insanity, yet often they are not so, and when they are not, and have committed some insane act, which they well know has brought them within the grasp of the criminal law, they will occasionally feign some manifestations of insanity over and above those that properly belong to their malady, in order to secure themselves from its retaliation. Those, too, who are insane, and know themselves to be so, will occasionally, under similar circumstances, feign more aggravated symptoms in order to place the existence of their insanity beyond a doubt. And finally, just as there are lunatics who will determinedly conceal their mental defects for lengthened periods, in order to secure the privileges of the sane, so there are other lunatics who will with equal determination feign for long periods defects which they do not actually suffer, in order to secure certain privileges and immunities of the insane. The detection of simulated insanity in a person who is really insane, and the distinction of the sham from the real affection, is a triumph of expert skill which has been several times effected, and which speaks highly for the present state of the practical estimation of insanity. Dr. Workman, of Toronto, continues his translation of Professor Golgi's investigations into the Minute Anatomy of the Brain—a translation which is often too literal to be intelligible. The indefatigable Dr. Spitzka has a long critical digest of the evidence given by the medical witnesses for the prosecution in the case of the wretched Guiteau. If this report is an accurate one, the answers of these witnesses, upon whose evidence the man was hanged, are simply amazing; and one can only wonder where and how the prosecuting counsel contrived to find a group of persons pretending to a know-



ledge of insanity who could make such statements as the following:—"I do not know what an irresistible impulse is. That is something I do not understand. I cannot conceive of an irresistible impulse." "People who are known as eccentric . . . or illy-balanced (*sic*) are not as liable to outbreaks of insanity as those who are more steady and staid in habits and character." "The existence of insane cousins, uncles, or aunts would have no bearing whatever on the question as to whether there was any hereditary tendency in a family." "There is, I think, no difference between an illusion, a delusion, and an hallucination." "I never knew a case of hereditary insanity where the disease itself was transmitted. Disease is never transmitted." It is difficult to believe that this report is correct, but if it be correct, and if the criminal was convicted on this evidence, it would be as erroneous to speak of his being executed as to speak of his victim in the same terms. We repeat, that if he was convicted on such evidence as this, his death was not an execution, but a murder. Syphilis in its Relations to Progressive Paresis is the title of a paper by Dr. Kiernan, who concludes that neither from a clinical, a therapeutical, nor a pathological standpoint can progressive paresis of non-syphilitic origin be demarcated from that of syphilitic origin, and that the value of antisyphilitic treatment will depend on the stage at which the syphilis is found. A good paper on Concealed Insanity, by Dr. Brower, of Chicago, concludes the original articles, which are, on the whole, well up to the usual standard of the *Alienist and Neurologist*. We have again to acknowledge with much cordiality the highly appreciative terms in which this journal is referred to by our Transatlantic contemporary.

*Guy's Hospital Reports.* Edited by H. G. HOWSE, M.S., and FREDERICK TAYLOR, M.D. Vol. XLI. London: J. and A. Churchill. 1883.

UNQUESTIONABLY the most important contribution to this volume is Dr. Pye-Smith's "Case of Idiopathic Anæmia of Addison, with a Commentary." The case in question was a typical example of the disease that has lately been re-named pernicious anæmia, but which was recognised as a separate morbid condition more than thirty years ago by Addison, and described by him under the name of idiopathic anæmia. The extract which Dr. Pye-Smith gives from Addison's original account of the disease leaves no doubt that "to Addison belongs the credit of recognising and describing this remarkable morbid condition." Having traced the history of the disease, the author proceeds to discuss its relation to other forms of anæmia, and then considers the pathology of anæmia, arriving at the following opinion:—"On the whole, although we cannot fully explain the pathology of idiopathic anæmia, we may believe that it depends not upon diminished gains or increased losses to the blood as a whole, nor upon any affection of the cytogenic organs or of the leucocytes, but upon too rapid and extensive destruction of the red blood-corpuscles." Idiopathic anæmia is a disease of early adult life. It appears not to be confined to the inhabitants of large cities, but is probably most frequent amongst peasants. The causes which predispose to it are still very obscure. The symptoms, course, duration, and prognosis all receive careful consideration in the paper. As regards the morbid anatomy, we do not seem to know much more than Addison did. He recognised the fatty degeneration of the heart, and we have no other constant lesion to add now, if we except, perhaps, retinal hæmorrhages and submucous hæmorrhages in the alimentary canal. The paper concludes with a very complete bibliography, including a table of the 102 cases hitherto recorded, and constitutes the most important monograph on the disease in this country. Dr. Wilks's paper on Hemianæsthesia will be read with interest by all physicians. Practically, it is a paper on hysterical hemianæsthesia, for, though he does not deny that loss of sensation may be the result of cerebral lesion, he says: "What I have not yet found, and am in search of, is a case of pure and simple hemianæsthesia due to a cerebral lesion." We venture to think that many neurologists would be obliged to admit that on several occasions they had met with such cases, though, no doubt, hemianæsthesia of cerebral origin is infinitely less common than the hysterical form. In order to explain this latter condition, Dr. Wilks suggests that one hemisphere of the brain ceases to functionise. He says:

"If I am right, we have only to suppose a cessation of action of half of the brain, or a part of it—say the middle and posterior lobes—to account for the loss of perception of all kinds, just as we may suppose an implication of the anterior part to result in a loss of power"; and he then proceeds to explain how this theory will be found at least as satisfactory as others. As regards his remarks on "metallo-thérapie," we fancy that most Englishmen will fully agree with him, as also in the necessity for a little wholesome neglect in the treatment of these cases, the success of which is well illustrated in the treatment of one of his own cases; but one is tempted to ask why the treatment was not adopted sooner. Dr. Goodhart contributes some cases of Saturnine Lunacy. We cannot say he has proved that the cerebral symptoms seen in these cases were due to lead-poisoning in all of them; indeed, in one case (the last) the evidence of such connexion is so slight, judging from the somewhat meagre report given of it, that the paper would not have been weakened by its omission. The remarks on the mode of action of lead as a poison, and on the resemblance between lead and alcoholic poisoning are, however, full of interest, and more than counterbalance any lack of completeness in the cases. There is another paper on lead poisoning by Dr. Stevenson, dealing with the absorption of lead by water from standing in leaden pipes, and referring to the two cases at Huddersfield and Keighley, which came into the law courts; and, lastly, containing an analysis of the only instance of murder by the administration of sugar of lead that has yet been known, viz., the trial and conviction of Louisa Jane Taylor for the murder of Mrs. Tregelles. Dr. Stevenson also contributes a short report on the Lamson Case, with some remarks on poisoning by aconitine. It seems fitting that the Reports, which a quarter of a century ago contained such an exhaustive analysis of the trial of Palmer, should now contain the best account of certainly one of the foulest deeds that has since then been perpetrated. Dr. Hilton Fagge records a case of Poisoning by Phosphorus successfully treated by oil of turpentine; and Dr. Savage gives a short account of three cases of Exophthalmic Goitre with Mental Disorder, in which he arrives at the opinion that "among the insane Graves's disease is more common than among the sane," and "that with this disease the mental symptoms are of a melancholic type." Mr. Bryant opens the volume with a brief Memoir of Mr. Joseph Towne, who was for fifty-three years modeller to the Hospital; it constitutes a somewhat tardy recognition of one to whose life-long labours the world-wide reputation of the Guy's Hospital Museum is so largely due. Mr. Bryant also contributes a paper on Surgical Affections of the Tongue, including therein notes of cases of some rare conditions, *e.g.*, hydatid cyst, tubercular ulceration, and ichthyosis; the paper is profusely illustrated. Mr. W. Arbuthnot Lane records five cases of Empyema treated by removal of a portion of rib. We find nothing in the reports of the cases to show that this line of treatment was necessary or even indicated, and the results were certainly not in any way more satisfactory than what we are accustomed to see after other modes of treatment. Want of space prevents us from doing more than mentioning that Mr. Davies-Colley has a paper on Acute Gonorrhœal Rheumatism, Mr. Jacobson one on the Minute Anatomy and Origin of the Enchondromata of the Salivary Glands, Mr. Golding Bird one on various forms of Talipes, Dr. Frederick Taylor one on Paralysis of the Abductors of the Vocal Cords, and Dr. Brailey one on the Vitreous Body in its relation to various Diseases of the Eye. The present volume fully maintains the traditions of its predecessors.

PROPOSED ORPHAN AGRICULTURAL COLONIES IN ALGERIA.—The Paris Assistance Publique proposes to establish in Algeria one or several orphan agricultural colonies, in which may be placed with advantage the deserted children who are daily taken charge of by the Administration. A special commission has been nominated by the Conseil Générale de la Seine for the purpose of investigating this interesting question, and for that purpose sailed for Algeria on September 1, having in view the examination of the various localities where it is proposed to establish these orphan institutions. A sum of 10,000 fr. has been placed at the disposal of the commission to cover its expenses.—*Union Méd.*, August 28.



## GENERAL CORRESPONDENCE.

## THE CHAIR OF PHYSIOLOGY IN ANDERSON'S HOSPITAL.

LETTER FROM DR. J. MCGREGOR-ROBERTSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In last Saturday's issue of the *Medical Times and Gazette* it is stated that I am an applicant for the chair of Physiology in Anderson's College, vacant by Dr. Barlow's removal to the Royal Infirmary. This is an entire mistake. I have not at any time contemplated becoming a candidate, and have not even made the inquiry invited concerning "the terms of the appointment."

If you will be good enough, therefore, to correct the statement in your next issue, I shall be obliged.

I am, &amp;c.,

J. MCGREGOR-ROBERTSON.

Physiological Laboratory, Glasgow University,  
September 3.

## NEW INVENTIONS AND IMPROVEMENTS.

## ABSORBENT COTTON-WOOL TISSUE.

WE have received from Messrs. Robinson and Son, of Wheat Bridge Mills, Chesterfield, samples of a material which they, at the suggestion of Mr. Sampson Gamgee, have produced for surgical dressings, and to which they have given the name of Absorbent Cotton-Wool Tissue. This consists of beautifully fine and pure cotton between two layers of fine absorbent gauze. It is very light, perfectly soft and smooth, very absorbent, and elastic; and it may be obtained in rolls of various widths, or in sheets of different sizes. It can consequently be applied to any surface, and surgeons will at once recognise that it will be highly useful. It makes an excellent absorbent dressing for wounds, and a capital padding for splints; and Mr. Sampson Gamgee has found it a useful and light material for the foundation of plaster-of-Paris splints. The tissue is sold by Messrs. Southall and Barclay also impregnated with antiseptic solutions.

## BENGER'S PEPTONISED BEEF-JELLY.

BENGER's Preparations of the Natural Digestive Ferments, which are manufactured by Messrs. Mottershead and Co., Exchange-street, Manchester, have deservedly a very high reputation, and are all largely used. The Peptonised Beef-Jelly is a delicately flavoured, concentrated, and partially digested beef-tea. It contains much of the fibrine or flesh-forming elements of the beef in a soluble condition, and may be recommended as a really valuable form of concentrated food. It may be taken cold, by teaspoonfuls, as a quick restorative; or it may be used, in the proportion of two or three teaspoonfuls in a teacupful of hot water, as a ready way of making beef-tea.

## BENGER'S LIQUOR PEPTICUS.

## BENGER'S LIQUOR PANCREATICUS.

THE first of these preparations is a concentrated solution of the natural digestive principles of the gastric secretions. It is singularly free from all disagreeable smell or taste; is clear and bright; and is a remarkably active fluid preparation of pepsine. It is worthy of all praise as a skilled preparation, and its high value as a digestive agent has been well proved by large experience.

The Liquor Pancreaticus, which contains the digestive principles of the pancreas, is also, from all points of view, an admirable and most satisfactory preparation. Students of "Quain's Dictionary" will remember that Dr. W. Roberts, in his article on peptonised foods, speaks very highly of this liquor pancreaticus; and there can be no doubt that it is found to be of great service in the ready preparation of artificially digested foods. Medical men can easily explain to patients or nurses the method of employing the preparation, and will gladly welcome the services of so easily employed and trustworthy an aid to nutrition.

## BENGER'S SELF-DIGESTIVE FOOD.

THIS preparation also, which may be described as a peptonised farinaceous food, deserves a few words of warm praise as an agreeable and highly nutritive food for infants and invalids. It consists of carefully prepared wheaten flour, impregnated with the natural digestive principles; and, when mixed with hot milk, the starch and the albuminoids of the flour and the milk are acted upon by the pancreatic extract, and gradually converted into an easily assimilable nutriment. It may therefore be well understood that the preparation is valuable in conditions of defective digestive power.

## URINARY TEST PAPERS.

FROM Messrs. Wilson and Son, pharmaceutical and operative chemists, Harrogate, we have received some samples of Dr. Oliver's Albumen and Sugar Test Papers, as prepared by them. They supply for albumen precipitants both simple and compound papers. The simple papers are impregnated with potassio-mercuric iodide, potassium ferrocyanide, potassio-mercuric iodo-cyanide, or sodium tungstate; and citric papers accompany each kind of these tests. The compound papers are impregnated with picric acid and citric acid, sodium tungstate with citric acid, or potassio-mercuric iodide with citric acid. The papers for testing for sugar are the indigo-carmin test. All the papers are prepared, with great care, according to Dr. Oliver's directions in every particular, and will be found very efficient and handy. They are supplied in neat, stout little cardboard boxes, an inch deep and slightly more than an inch in length, taking up but little room in the waistcoat pocket. Some carbonate of soda papers are supplied with each box of the indigo-carmin sugar-test papers, as it has been found that the power of the test is greatly amplified by using also a paper charged definitely with carbonate of soda.

## OBITUARY.

## FREDERIC COBB, M.D. EDIN., F.R.C.P. LOND.

DR. COBB, formerly Physician to the London Hospital, died at his residence at Frensham, Surrey, on September 2, in his eighty-eighth year. He had retired from practice so long ago that probably there are not many members of the profession living who remember much about him, and we learn the following particulars as to his career from the Roll of the Royal College of Physicians. He was born at Throwly, in Kent, and received his preparatory education at the King's School, Canterbury. He commenced the study of medicine at the London Hospital, and in 1818 was appointed Demonstrator of Anatomy in the School of Medicine of the Hospital. He next went to Edinburgh, studied there for three years, and took the M.D. degree of the University on August 1, 1822. Returning then to London, and settling there in practice, he became a Licentiate of the Royal College of Physicians in March, 1823, and was admitted a Fellow of the College in September, 1839. On September 5, 1827, he was elected Assistant-Physician to the London Hospital, and full Physician on February 17, 1841. The latter office he held until 1854, and shortly afterwards he retired from practice, and withdrew to his estate in Surrey, where he died. While in London he lived in St. Helen's-place, in the City.

FRENCH BRANDY.—In a recent return of the French Minister of Agriculture on the wines of 1882, it appears that the vineyards of the two Charentes, which alone supply the genuine wine-brandy, are irretrievably ruined. These two departments, which were almost entirely devoted to grape-culture, gave 311,000,000 gallons of wine in 1875. Last year they only gave one-eighth of that quantity, being a falling off of 273,000,000 gallons; and the quality was execrable. The condition of Charente proper, which produced the true cognac, is even worse: for the vintage—if it can still be called so—only gave the twenty-second part of the yield of 1875, and the ravages of the phylloxera are each successive year going from bad to worse. In fact, the pest has now utterly destroyed throughout France nearly two million acres of vineyards.—*Phil. Med. Reporter*, August 11.



## MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 30 :—

Davies, Henry Havelock, Snainton, Yorkshire.  
Dodd, Arthur Herbert, Canonbury, N.  
Gent, George Sidney, Chalcot-crescent, Regent's-park.  
Turnbull, William, Gosforth, Newcastle-on-Tyne.

The following gentleman also on the same day passed the Primary Professional Examination :—

Greenwood, Cecil Danforth, King's College Hospital.

## BIRTH.

COOPER—On September 5, at 9, Henrietta-street, Cavendish-square, the wife of Alfred Cooper, F.R.C.S., of a daughter.

## DEATHS.

BOND, HENRY JOHN HAYLES, M.D., late Regius Professor of Medicine in the University of Cambridge, at his residence, Regent-street, Cambridge, on September 3, aged 82.

COBB, FREDERIC, F.R.C.P., formerly of St. Helen's-place, London, at Frensham, Surrey, on September 2, in his 88th year.

HIGHMORE, WILLIAM, M.D., at Greenhill, Sherborne, Dorset, on August 28, aged 67.

HUNT, BENJAMIN, M.D., at 50, George-road, Edgbaston, on September 3.

MASTER, ALFRED, F.R.C.S., J.P. of Norwich, on September 3, aged 67.

WELLINGS, RICHARD, M.R.C.S., L.S.A., at The Limes, Waterloo, Hampshire, on August 23, aged 71.

WHITE, WILLIAM TODD, F.R.C.S., at The Orchard, Penzance, on August 27, aged 64.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and must produce certificates of having attended the practice of some ophthalmic institution for at least six months. Testimonials to be sent to the Secretary, on or before September 8.

GENERAL INFIRMARY, LEEDS.—House-Physician. Salary £100 per annum, with board, residence, and washing. Candidates must possess a medical degree in a British university, or be members or licentiates of a British college of physicians. Copies of testimonials to be sent to Dr. T. Clifford Allbutt, The Infirmary, Leeds, on or before September 12.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—House-Physician. (For particulars see Advertisement.)

KENT COUNTY OPHTHALMIC HOSPITAL, MAIDSTONE.—House-Surgeon. Salary £100 per annum, with furnished rooms, light, fire, and attendance. Candidates must be Members of the Royal College of Surgeons of London, and Licentiates of the Apothecaries' Company, or possess an equivalent qualification duly registered under the Act of Parliament. Applications and testimonials to be sent on at once, or personal applications may be made, to Matthew A. Adams, F.R.C.S., Surgeon to the Hospital.

ROYAL UNITED HOSPITAL, BATH.—House-Surgeon. (For particulars see Advertisement.)

ST. GEORGE'S, HANOVER-SQUARE, PROVIDENT DISPENSARY, 59, MOUNT-STREET, W.—Resident Medical Officer. Salary and allowance last year £212 2s. 9d. Candidates must be doubly qualified, and duly registered under the Medical Act, and about thirty years old. Unmarried candidates preferred. Applications and testimonials as to character, etc., to be sent to the Secretary, G. H. Leah, jun., 73, Park-street, W. (from whom all further particulars may be obtained), not later than Sept. 29.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, ETC., HENRIETTA-STREET, COVENT-GARDEN, W.C.—House-Surgeon. Honorarium twenty-five guineas; board, lodging, and washing. The appointment is for six months. Candidates must be M.R.C.S., and have held the position of house-surgeon at a public institution. Applications, with testimonials, to be sent to the Secretary, Walter E. Scott, on or before September 25.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

Buckingham Union.—Mr. T. J. Denton has resigned the Marsh Gibbon District: area 13,930; population 2568; salary £105 per annum.

## APPOINTMENTS.

Boston Union.—Marmaduke Pittard, M.R.C.S. Eng., L.S.A., to the Swineshead District.

Bramley Union.—James B. Brereton, L.K. & Q.C.P. Ire., L.R.C.S. Ire., to the Gildersome District.

Holbeach Union.—James E. Smith, M.R.C.S. Eng., L.S.A., to the Luton District.

Ross Union.—Francis W. B. Jones, M.B., C.M. Edin., to the Fourth District.

## APPOINTMENTS FOR THE WEEK.

## September 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

## 10. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

## 11. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

## 12. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

## 13. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

## 14. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

**THE BUFATINI PRIZE.**—Conforming to the last wishes of the late Prof. Bufatini, the Minister of Public Instruction in Italy has published the conditions of an international competition for the best essay on the "Application of the Experimental Methods to Science." Manuscripts, written in the Italian or Latin languages, will be received until October, 1884, by the Secretary of the Medical Faculty at Florence: The prize amounts to 5000 fr.—*Phil. Med. News*, August 11.

**CREMATION AND THE CHOLERA.**—The Council of Public Health for the Department of the Seine has adopted a report, presented by M. Brouardel, against the institution of cremation in times of epidemics. M. Brouardel alleges that this means of disposing of the dead would be fraught with danger to the interests of justice, especially during an outbreak of cholera. The Council afterwards nominated a commission, instructed to inquire whether it would not be advisable, as an experiment, to permit the cremation of bodies which have been used for anatomical studies.

**GLASGOW MATERNITY HOSPITAL.**—A vacancy in this Hospital will soon require to be filled, in consequence of Dr. Hugh Miller's term of office as Physician having expired. Already three candidates have been spoken of, viz., Drs. W. Loudon Reid, J. Stirton, and Murdoch Cameron. It is all but certain, however, that others will come forward, for in such cases the supply is generally in excess of the demand.

**ZONA OF THE MOUTH.**—Dr. Deshayes related, at the meeting of the French Association for the Advancement of Science, an interesting case of zona of the mouth, limited to the regions supplied by the lingual nerve and the inferior dental nerve, a branch of the inferior maxillary. The tonsils, floor and roof of the mouth, tongue, gums, the incisors, canines, and molars, the lower lip, and a portion of the skin of the chin were the seat of the pains, which, as regards the soft parts, were soon followed by the eruption. The teeth are at the present time—a year after the disease—entirely exempt from erosion, and no disturbance in the function of taste has taken place. The only probable cause of the affection was exposure to damp and cold. The patient was somewhat of a nervous subject, but exempt from any diathesis. The interest of the case especially resides in the fact that zona may affect several branches of a nervous trunk to the exclusion of others.—*Union Méd.*, August 28.



## VITAL STATISTICS OF LONDON.

Week ending Saturday, September 1, 1883.

## BIRTHS.

Births of Boys, 1249; Girls, 1193; Total, 2448.  
Corrected weekly average in the 10 years 1873-82, 2574.6.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	693	599	1292
Weekly average of the ten years 1873-82, } corrected to increased population ...	756.6	717.9	1474.5
Deaths of people aged 80 and upwards ...	...	...	44

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	...	3	2	...	3	1	4	1	9
North ... ..	905947	3	9	10	6	3	...	13	...	21
Central ... ..	282238	...	3	1	...	4	...	1	...	4
East ... ..	692738	...	16	9	3	6	...	1	...	14
South ... ..	1265927	1	26	18	10	11	...	2	...	26
Total ... ..	3816483	4	57	40	19	27	1	21	1	74

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	...	...	29.685 in.
Mean temperature ... ..	...	...	...	...	...	...	...	...	62.5°
Highest point of thermometer ... ..	...	...	...	...	...	...	...	...	78.4°
Lowest point of thermometer ... ..	...	...	...	...	...	...	...	...	49.1°
Mean dew-point temperature ... ..	...	...	...	...	...	...	...	...	55.8°
General direction of wind ... ..	...	...	...	...	...	...	...	...	S.W. & W.
Whole amount of rain in the week ... ..	...	...	...	...	...	...	...	...	0.36 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
Week ending Saturday, Sept. 1, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Sept. 1.	Deaths Registered during the week ending Sept. 1.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the week.	Lowest during the week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ... ..	3955814	2448	1292	17.0	78.4	49.1	62.5	16.95	0.36	0.91
Brighton ... ..	111262	65	57	26.7	70.9	56.1	61.9	16.61	0.28	0.71
Portsmouth ... ..	131478	95	56	22.2	...	...	...	...	...	...
Norwich ... ..	89612	59	23	13.4	...	...	...	...	...	...
Plymouth ... ..	74977	39	36	25.1	67.6	54.5	59.5	15.28	0.54	1.37
Bristol ... ..	212779	96	61	15.0	65.4	55.1	58.7	14.83	0.35	0.89
Wolverhampton ... ..	77557	56	30	20.2	68.4	51.0	58.2	14.55	0.42	1.07
Birmingham ... ..	414846	257	169	21.3	...	...	...	...	...	...
Leicester ... ..	129483	82	67	27.0	...	...	...	...	...	...
Nottingham ... ..	199349	154	81	21.2	71.5	51.8	60.0	15.56	0.17	0.43
Derby ... ..	85574	39	28	17.1	...	...	...	...	...	...
Birkenhead ... ..	88700	57	36	21.2	...	...	...	...	...	...
Liverpool ... ..	566753	348	269	24.8	70.2	50.0	58.7	14.83	0.30	0.76
Bolton ... ..	107862	77	45	21.8	...	...	...	...	...	...
Manchester ... ..	339252	219	124	28.3	...	...	...	...	...	...
Salford ... ..	190465	123	91	24.9	...	...	...	...	...	...
Oldham ... ..	119071	73	43	18.8	...	...	...	...	...	...
Blackburn ... ..	108460	72	42	20.2	...	...	...	...	...	...
Preston ... ..	98564	61	52	27.5	72.0	51.0	59.1	15.06	0.09	0.23
Huddersfield ... ..	84701	31	34	20.9	...	...	...	...	...	...
Halifax ... ..	75591	41	19	13.1	...	...	...	...	...	...
Bradford ... ..	204807	113	74	18.9	74.2	45.5	59.5	15.28	0.56	1.42
Leeds ... ..	321611	222	124	20.1	69.4	54.3	60.3	15.73	0.08	0.20
Sheffield ... ..	295497	206	143	25.3	68.4	52.6	58.8	14.89	0.56	1.42
Hull ... ..	176296	138	58	17.2	74.0	50.0	58.5	14.72	0.51	1.30
Sunderland ... ..	121117	101	45	19.4	82.0	45.0	37.0	12.78	1.00	2.54
Newcastle ... ..	149464	104	83	29.0	...	...	...	...	...	...
Cardiff ... ..	90033	70	36	20.9	...	...	...	...	...	...
For 28 towns ... ..	5620975	5446	3278	19.8	82.0	45.0	57.9	14.39	0.40	1.02
Edinburgh ... ..	235946	112	82	18.1	72.8	45.5	56.9	13.83	0.66	1.68
Glasgow ... ..	515589	378	267	27.0	65.0	48.0	57.4	14.11	0.94	2.39
Dublin ... ..	349835	191	157	23.4	71.0	42.0	57.8	14.34	1.40	3.56

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.69 in.; the highest reading was 29.96 in. on Sunday morning, and the lowest 28.93 in. at the end of the week.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

## "THE GENU-PECTORAL POSITION."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—From my perch in the house of my confinement I have observed from time to time a manifest tendency on the part of some of the more evolved of my fellow-creatures—the gynæcologists—to study posture in its manifold physiological and pathological bearings. There are some in this country whose keen vigilant eyes have not left unobserved the advantages connected with the adoption of proper and fitting postures under certain circumstances. Far more, however, have these advantages been appreciated by our relatives in America—for few here have paid even a slight attention to this subject, while on the other side of the Atlantic the generality of practical gynæcologists regard posture as one of the most valuable implements (if I may so call it) in their armamentarium. This is, however, more especially true of those postures called genu-pectoral and knee-elbow.

I cannot help regarding the new discovery of the value of these positions as an indication of great importance—pointing, as it unquestionably does, to the fact that Dame Nature committed a serious blunder in the evolution of the Bimana. It has been left to the mechanical school of uterine pathologists, and indeed to the most advanced of them, to make this grand discovery, and to establish it by evidence which appears to be incontrovertible. It is hardly necessary for me to enumerate the various facts which go to complete this evidence; suffice it to mention the frequency with which displacements of the uterus are met with in those who in the course of the progress of evolution have assumed the erect posture, and the efficacy of frequent recourse to the genu-pectoral, knee-elbow, or all-fours posture for the relief and cure of these troublesome, painful, sterility-generating, and obstinate pathological conditions. Indeed the frequency with which these disorders are met with in the highest evolved members of the race, according to the best accounts, threatens its extinction by insuring general sterility, and in this way to verify the old adage, "Vaulting ambition, etc." The re-discovery, however, of the knee-elbow position, which can only be the recurrence of an ancestral idea, if carried into practice generally and without delay, may save the race from such an extinction. Avoidance of the erect posture, and an immediate and universal return to a more primitive mode of progression—all-fours—might, and I believe would, not only preserve the race, but also insure a healthy state of the generative organs. It would not only insure fecundity, but, in addition, painless and healthy performance of function. The confession of error involved in such a proceeding—for some would call it retrograde—would of course be painful, but the advantages which would follow it would amply compensate for any sentimental pain it may cause. The mechanical school of gynæcologists have made a great and valuable discovery; let them stick to it and treasure it, and I pray them for the sake of the race not to shirk its legitimate and logical outcome.

Monkey House in the Zoo. I am, &amp;c., THE BARE-FACED.

H. C. Fox.—No case of genuine Asiatic cholera is known to have occurred in England this year.

Proposal to the Powers to hold a Conference in Rome on Cholera Regulations.

—Signor Mancini, the Italian Minister of Foreign Affairs, according to a morning contemporary, proposes a conference to draw up sanitary regulations against the cholera. Several of these have assented in principle to the proposal.

Street Noises.—The Town Council of Luton have passed a by-law to prohibit, under a fine of 40s., "shouting, singing, howling, or playing upon any drum, tambourine, trumpet, cornet, or other noisy instrument (whether in procession or otherwise)." The by-law is made under Section 23 of the Municipal Corporation Act, 1882.

L.R.C.P. Lond.—Dr. Bisset Hawkins is the son of John Adair Hawkins, and must be about eighty-seven, seeing he was born in 1796.

Dermatologist.—Yes; it is quite true that Sir Erasmus Wilson is leaving Henrietta-street, but the house is not to let, Marshall and Snelgrove having purchased it in order to increase their already large premises.

Grocers' Licences.—At the Brewster Sessions for the borough of Burnley, after two days occupied in dealing with grocers' licences, out of 140 off licences in the town, ninety were renewed and fifty refused. The police objected to all these licences, and a largely signed and influential petition was presented to the Bench in favour of their abolition.—At Accrington the result of a poll on the question of these licences was that four-fifths of the householders voted against their renewal. The licensing magistrates were astonished at this expression of opinion, and, in deference thereto, adjourned the licensing session in order to permit of notices of objection being given to holders of off licences.

The Sunderland Theatre Disaster.—The Mayor convened a private meeting for the purpose of considering the subject of the proposed convalescent home in connexion with the fund now being raised in consequence of the disaster. After some discussion, a committee, composed chiefly of medical men, was formed to prepare a report as to the advantages and requirements of a convalescent home. Steps have been taken to collect further subscriptions, and a meeting of the general committee will be held shortly to sanction such measures as may be advised for the promotion of the object in view.

Paternal Solicitude.—The Municipality of Genoa has determined to give gratis to all persons who present themselves at the offices to register the birth of a child a small pamphlet containing brief directions for the healthy rearing of the infant.



**Wasp Stings.**—A correspondent states that another death (the second in less than a fortnight) has just occurred in the neighbourhood of Bishop's Stortford, the deceased being a Mrs. Horsnell, aged sixty-three, who kept a confectionery shop, and whilst cleaning the window a wasp settled on the nape of her neck and stung her. She had sense enough to call to her son to bring the oil bottle and rub the spot with oil. He did so, when she exclaimed she was going, and fainted. A medical man was called in, but she never recovered consciousness, expiring within twenty minutes after receiving the injury.

**A People's Park, America.**—The most recent big thing is a public park of 3573 acres. It is situated in Wyoming.

**Collett.**—Up to the beginning of August the Berlin Hygiene Exhibition had been visited by about half a million persons. The receipts up to that date had exceeded 350,000 marks.

**Centenarians.**—The undermentioned centenarians lived and died in the parish of Ilfracombe; their remains are deposited in the churchyard:—John Pile, died May 17, 1784, aged 100 years; Sarah Williams, died January 13, 1788, aged 107 years; William Soaper, died November 6, 1804, aged 103 years; John Davies, died March 4, 1810, aged 102 years. Elizabeth Brooks, died January 10, 1840, aged 100 years; Nanny Vaggs (widow), born June 19, 1758, died October 6, 1859; Jane Richards, died June 13, 1875, aged 101 years.

**On Dit.**—Acting on the hint thrown out by the Home Secretary, it is stated that some great capitalists are already engaged in taking the preliminary steps for the formation of a financial corporation to supply the metropolis with water from one pure source, and at rates much under the present charges.

**Small-pox, Sydney.**—The small-pox scare, two years ago, entailed a large expense. Claims for compensation, expenditure for buildings, food, etc., amounted to £84,000.

**A Sad Fatality.**—On the night of the 28th ult., Mr. Edmund Knowles, surgeon, 12, Newmarket-road, Cambridge, whilst walking upstairs at his own residence, slipped and fell backwards, dislocating his neck. Death was instantaneous. Until lately he was one of the medical officers of the Union. An inquest on the body has been held, and a verdict of accidental death returned.

**Marriage of First Cousins.**—It is reported that the Society of Friends in England has just repealed the prohibition of the marriage of first cousins, which has been in force in that body for nearly two hundred years.

**Public Vaccinators: Battle Union.**—At the Battle Petty Sessions, last week, nine cases of default of parents to have their children vaccinated were heard. The evidence was in several of the cases fully gone into, the result being the dismissal of the summonses. It was shown that the public vaccinators had neglected to fill in and return the necessary certificates. Ultimately, all the nine charges were dismissed, the Bench animadverting strongly on the neglect shown by the doctors in question.

**Cremation in England.**—Dr. Cameron has given notice in the House of Commons of his intention on an early day next session to introduce a Bill legalising cremation.

**The Withdrawal of the Medical Act Amendment Bill.**—A Scotch contemporary thus concludes an article on this subject:—"Now that the Bill is out, it must never come in again on the same lines, and this the Scotch and Irish bodies ought effectually to see to. If Lord Carlingford and Mr. Mundella still feel sufficiently interested in the matter to move in it again, let them be guided by the views and welfare of the profession of the United Kingdom, and not merely by a few doctors in London, whether writers in the Strand or fashionable consultants in the West-end of the town."

**Female Physicians, United States.**—According to a statistical return there are no less than 2432 female physicians.

**A Jerry Builder.**—A builder, who was recently fined nearly £100 by the Highgate magistrates for using garden mould instead of mortar in the erection of two houses at Highgate New Town, applied last week for leave to appeal against the magistrates' decision, but this the Bench refused. Several severe accidents and two fatalities have lately occurred in the suburbs by the falling of portions of parapets and gutters which were made of defective materials, and dangerously constructed and erected.

**Bibliopole, Greenwich.**—The library of the Royal College of Surgeons was closed on the 1st inst., and will not be reopened until Monday, the 1st prox.

**In her 123rd Year.**—The Paris *Temps* asserts that there is a woman living in the village of Auberire-en-Royans, in the department of the Isère, who was born on March 18, 1761, and is consequently in her 123rd year. Her name is Marie Durand, she was born at St. Just-de-Claire, was married on December 30, 1783, to Claude Girard, who was born in 1749, and she has been a widow for ninety-six years.

**Dr. Morrison.**—Competitors for the Jacksonian Prize must be members of the College of Surgeons; the essays must be sent in on or before Saturday, December 31. The subject for it is "The Pathology, Diagnosis, and Treatment of Obstruction of the Intestines in its various forms in the Abdominal Cavity."

**Statistical Comparisons between the British and German Capitals.**—London covers an area of over five and a half German square miles, Berlin of only one. The average number of inhabitants per house is eight in London and no less than sixty-one in Berlin. The annual income value of all dwelling-houses in London is calculated to be 141 marks (or shillings) per head of the total population, in Berlin 148 shillings. During the year 1882, the proportion of all births in London was 34.3 per thousand, in Berlin 37.9, while that of deaths was 21.4 and 25.9 respectively. It will thus be seen that while the natural increase is slightly greater in the German capital, its death-rate is also higher than that of the British metropolis. During the past year the total increase of the population was 62,047 in London, and 35,691 in Berlin. The ideas of cleanliness seem to be much more developed in England than Berlin, for while the annual consumption of water from the public mains is 136 litres per person in London, it is only 61 litres in Berlin, but then a great quantity of water is also taken from private wells in Berlin.

**Workhouse Fish Dinners.**—The occasional substitution of fish for meat as an article of diet is gaining rather rapid recognition by workhouse authorities, and generally the change appears to have been appreciated by the inmates. Moreover the experiment is found, in other respects, financially especially, to work satisfactorily, and the Local Government Board has readily accorded its sanction to the change.

**Urban and Rural Sanitary Improvements.**—The Stevenston Local Authority have instructed an engineer to prepare a modification of the Glen water-supply scheme, suitable for the requirements of Stevenston parish, including the Salteoats part of the parish.—The Wednesbury Local Board have, after considerable discussion, adopted the proposal that the sewage should be purified by precipitation, overflowing tanks, and, if required, by filtration.—The new waterworks at Clandon, to supply Woking and the district adjoining with water, have just been opened. They are situated in a field on the hills of Clandon, several miles from the chalk formation of the hills. Besides the requisite pumping machinery, there is a capacious reservoir.—Staines: The members of the Joint Infectious Diseases Hospital Board have now agreed upon the plan for a proposed hospital, subject to the approval of the Local Government Board.—Yeovil: The Town Council have adopted plans for the new public baths.—The Suffolk Convalescent Home at Felixstowe is about to be enlarged by the addition of an east wing accommodating twenty-four male patients; estimated cost about £2350.—The newly constituted Joint Main Sewerage Board for Godalming have instructed their surveyor to submit plans for the main drainage of the district.—The Local Board of Loughborough, Leicestershire, have under consideration plans for an adequate water-supply.—The Sanitary Committee of the Town Council of Tiverton have several designs before them for the disposal of the sewage.—Burnham: The Rural Sanitary Authority of the Maldon Union have decided to carry out a complete system of sewerage for the town of Burnham, and to extend the drainage of Southminster in their district.—The main drainage scheme for the united districts of Market Harborough and Great Bowden in Leicestershire, and Little Bowden in Northamptonshire is now completed. The cost has been over £16,000.—The Southamptton Corporation have decided to filter the water-supply of the borough, which is drawn from the river Itchen. The estimated cost is £5000. This decision is the outcome of a report prepared by Dr. De Chaumont, Professor of Military Hygiene at Netley Hospital.

**Dr. Young, Hong-kong, China.**—Letter and enclosure received with thanks.

#### COMMUNICATIONS have been received from—

Messrs. CASSELL AND Co., London; Mr. H. C. Fox, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. HENRY DAVY, Exeter; Mr. J. MCCARTHY, London; Dr. WILLOUGHBY, London; Dr. HERMAN, London; Mr. J. CHATTO, London; Dr. J. MCGREGOR ROBERTSON, Glasgow; Dr. J. W. MOORE, Dublin; Dr. A. T. THOMSON, Glasgow; THE SECRETARY OF THE SOCIAL SCIENCE ASSOCIATION, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. T. M. STONE, London; Dr. MERCER, DARTMOUTH.

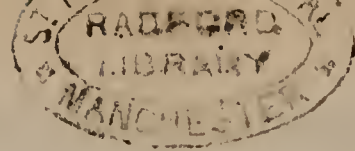
#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—British Workman—Revue de Médecine—Revue de Chirurgie—Band of Hope Review—L'Imparziale—Veterinarian—New York Medical Journal—Monthly Homoeopathic Review—Edinburgh Medical Journal—Archives Générales de Médecine—L'Impartialité Médicale—Glasgow Medical Journal—Sanitary Journal, Toronto—Birmingham Medical Review—Morningside Mirror, July 16 and August 15—Revue Mensuelle de Laryngologie, etc.—New York Medical Record.

#### BOOKS, ETC., RECEIVED—

On the Cause and Treatment of Phthisis, by H. Armstrong Rawlings, M.R.C.S., L.R.C.P., etc.—Imperial Maritime Customs, China: Catalogue of the Chinese Collection of Exhibits for the International Fisheries Exhibition—Imperial Maritime Customs, China: Medical Reports for the Half-year ended September 30, 1882—Utilisation of Town Refuse, by Lawson Tait, F.R.C.S.—Thirty-seventh Report of the Commissioners in Lunacy to the Lord Chancellor—Case of Adeno-Sarcoma of Mamma, by James Whitson, M.D., etc.—History of Rome, by Victor Duruy.





# THE STUDENTS' NUMBER

OF THE

# MEDICAL TIMES AND GAZETTE

FOR

## 1883-84.

THIS number of the *Medical Times and Gazette* is for the most part specially devoted to the supply of needful information to parents, guardians, and intending medical students old enough to judge for themselves as to what course they must pursue in seeking to enter the medical profession. It is not often, however, that such inquirers are left entirely to such guidance. Everyone knows, or his friends know, some medical practitioner willing to give aid and assistance, often sadly needed, on the subject; for very many circumstances which cannot here be indicated enter into the questions to be determined, with regard to an intending student of medicine. Foremost amongst these is the selection of a school, which, however, is often practically determined by convenience, or even by the question of fees; but the amount of money to be paid is not in reality the most important point to be settled. Large fees no more predicate good teaching and training than a smaller sum means that the teaching is bad. More important than fees—in many cases, at least—is the character of the school for industry or idleness, for expensive or economical (which does not of necessity imply slovenly) habits; in short, what constitutes the whole tone of a school. For the character of a medical school is only less important than that which pervades a public school, after which parents so anxiously inquire. Matters of this kind cannot be discussed in books, papers, or advertisements, though in certain respects they are even more important in a medical than in a public school. In the former the students are only kept in restraint during a few hours in the day, whereas in the latter the supervision is more or less constant.

In seeking the advice of medical men, however, the inquirer must not forget that there is a strong *esprit de corps* among the different schools, and that for the most part every man thinks his own the best. This spirit we should be the last to condemn, were it not that it arises in a way which is hardly creditable to the various hospital and school authorities themselves. Such things as allied hospital sports, cricket and football clubs, and so on, are now gradually breaking down the walls of separation which formerly existed between different schools, and which were on purpose kept up by making all schools self-sufficing, and still more by the positive discouragement even now given to students passing from one school to another.

We purpose, therefore, to lay before our readers as fully as possible the materials whereby they may arrive at a sound judgment for themselves, aided or unaided, as to what is necessary to be done by the intending student, where the knowledge demanded of the pupil at his qualifying examinations may be obtained, and at what cost. Moreover, as in the meantime the requirements of the various qualifying bodies as regards attendance on classes, etc., differ among themselves, we have given, as fully as need be, the various rules and regulations enforced by each of these.

### I.—PRELIMINARY EDUCATION.

#### REGISTRATION AS A MEDICAL STUDENT.

It is universally conceded that the establishment and enforcement of an examination in matters of ordinary education has done much to raise the status of the medical practitioner. It has especially tended to elevate him above the dull level which he formerly occupied, and to raise him in the social scale. Moreover, it has at once choked off (if we may use the expression) a great number of men obviously unfitted for the profession, at the very commencement of their would-be career, and induced them to turn their attention to other occupations better suited to the bent of their genius. All are agreed, we repeat, as to the utility of this examination, but all are not of the same mind as to its scope and purport. In these utilitarian days the test of all things is, too often, Will it pay? And to this end some would have the future medical practitioner trained up, so to speak, from his very cradle, with a view to his ultimate destination in life. How often such intentions are frustrated we need hardly say; and it is a terrible thing to contemplate a mind cramped and confined in a single groove through life. Rather we would demand in preliminary education what will give breadth and power to the character and intellect, in the shape of that tincture of letters which is useful to all men, and to none more than to the medical practitioner. The General

Medical Council have provided for this by insisting that every examination which they will recognise shall comprehend the following subjects:—1. English Language, including grammar and composition. (a) 2. English History. 3. Modern Geography. 4. Latin, including translation from the original and grammar. 5. Elements of Mathematics, comprising—(a) Arithmetic, including vulgar and decimal fractions; (β) Algebra, including simple equations; (γ) Geometry, including the first two books of Euclid, or the subjects thereof. 6. Elementary Mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics. (b) 7. One of the following optional subjects:—(α) Greek, (β) French, (γ) German, (δ) Italian, (ε) any other modern language, (ζ) Logic, (η) Botany, (θ) Elementary Chemistry.

Some bodies specially insist on Greek; and care should be taken to comply with this demand, if possible, at the time of the Preliminary Examination, even should it be optional to postpone it to a later season, which in all probability will

(a) The General Medical Council will not consider any examination in English language sufficient that does not fully test the ability of the candidate (1) to write sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; (2) to write correctly from dictation; (3) to explain the grammatical construction of sentences; (4) to point out the grammatical errors in sentences ungrammatically composed, and to explain their nature; and (5) to give the derivation and definition of English words in common use.

(b) This subject may be passed either as preliminary, or before or at the First Professional Examination.



be found not to be so convenient. We would specially impress on all who seek to attain to the higher grades of the profession to take a degree in Arts, if possible, before entering on their strictly professional studies; and this can be done nowadays at Cambridge much more easily than would be supposed. Two examining bodies disregard the possession of a degree in Arts. Thus, the University of London will only accept its own Matriculation Examination, whilst the Royal College of Physicians include in their examination for the membership questions in Greek, Latin, French, and German. Otherwise there is an increasing tendency to accept the certificates of any respectable institution whose examinations comprehend the subjects insisted on by the General Medical Council. This body now accepts the *testamur* of any one of the following certificates about to be enumerated; and, generally speaking, what is accepted by the Medical Council will be accepted elsewhere, with the exceptions above mentioned. The following is the list of bodies whose testimonials of proficiency are received and acknowledged by the Medical Council:—

EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL AS REGARDS PRELIMINARY EDUCATION.

I.—Universities in the United Kingdom.

Oxford.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Senior Local Examinations, certificate to include Latin and Mathematics; Responsions; Moderations; Examination for a degree in Arts.

Cambridge.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including the elements of statics and hydrostatics. Senior Local Examinations, certificate to include Latin and Mathematics; Higher Local Examinations; Previous Examination; Examination for a degree in Arts.

Durham.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Senior Local Examinations, certificate to include Latin and Mathematics; Registration Examination for medical students; Examination for students at the end of their first year; Examination for a degree in Arts.

London.—Matriculation Examination; Preliminary Scientific (M.B.) Examination; Examination for a degree in Arts or Science.

Edinburgh.—Local Examinations (Junior certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Local Examinations (Senior certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Science or Medicine and Surgery; Examination for a degree in Arts.

Aberdeen.—Local Examinations (Honours certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

Glasgow.—Local Examinations (Senior certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

St. Andrews.—Local Examinations (Honours certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

Dublin.—Public Entrance Examination; Examination for a degree in Arts.

Royal University in Ireland.—Local Examinations for Men and Women, certificate to include all the subjects required by the General Medical Council as set forth in Recommendation 4; Entrance or Matriculation Examination; Previous Examination for B.A. degree; Examination for a degree in Arts.

Oxford and Cambridge Schools' Examination Board.(c) —Certificate to include—Arithmetic (including vulgar and decimal fractions), Algebra (including simple equations), Geometry (including the first two books of Euclid), Latin (including translation and grammar), also one of these optional subjects:—Greek, French, German, mechanical division of Natural Philosophy.

II.—Other Bodies named in Schedule (A) to the Medical Act.

Apothecaries' Society of London.—Examination in Arts.

Royal College of Physicians and Surgeons, Edinburgh.—Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined.

(c) The *English* is provided for by the following resolution of the Executive Committee:—"That, as every candidate for the certificate of the Oxford and Cambridge Schools' Examination Board is required to answer questions in such a manner as to satisfy the examiners that he has an adequate knowledge of English Grammar and Orthography, this shall be held as conforming to the requirements of the Medical Council in reference to English Language."

Faculty of Physicians and Surgeons of Glasgow.—Preliminary Examination in General Education.

Royal College of Surgeons in Ireland.—Preliminary Examination; certificate to include Mathematics.

Apothecaries' Hall of Ireland.—Preliminary Examination in General Education.

III.—Examining Bodies in the United Kingdom not included in Schedule (A) to the Medical Act (1858).

College of Preceptors.—Examination for a First or Second Class Certificate, provided that, in the case of the latter, the candidate has passed in the First or Second Division, and has taken Algebra, Euclid, Latin, and a modern language.

Examiners for Commissions and Appointments in Her Majesty's Service, Military, Naval, and Civil.—Certificate, including all the subjects required by the Council's 4th Recommendation.

IV.—Indian, Colonial, and Foreign Universities and Colleges.

Universities of Calcutta, Madras, and Bombay.—Entrance Examination; certificate to include Latin.

Universities of McGill College, Montreal; Bishop's College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton, New Brunswick; Medical College, Halifax, Nova Scotia; Melbourne; Sydney; Adelaide; Michigan College of Medicine.—Matriculation Examination.

University of Manitoba.—Previous Examination.

University of King's College, Nova Scotia.—Matriculation Examination; Responsions.

Tasmanian Council of Education.—Examination for the degree of Associate of Arts; certificate to include Latin and Mathematics.

University of the Cape of Good Hope.—Matriculation Examination; Examination for a degree in Arts.

University of Otago.—Preliminary Examination.

University of New Zealand.—Entrance Examination.

Christ's College, Canterbury, New Zealand.—Voluntary Examinations; certificate to include all the subjects required by the Council's 4th Recommendation.

Codrington College, Barbadoes.—English Certificate for Students of two years' standing, specifying subjects of examination; Latin Certificate.

South Australian Institute.—Preliminary General Examination; First Class Certificate.

Ceylon Medical College.—Preliminary Examination (Primary Class).

Germany and other Continental Countries.—Gymnasial Abiturienten Examen in Germany, and the corresponding Entrance Examination to the Universities in other continental countries.

We have already pointed out that the University of London insists on all its would-be members passing its own Matriculation Examination. This is undoubtedly severe; but, when passed, it gives a man a certain stamp, which is always of value. Moreover—and *this is very important*—this University counts no medical study until this examination has been passed, so that even if a man has gone through a complete medical curriculum, and should yet desire the University of London degree, he would have to go back to the very beginning over again to attain the object of his ambition.

UNIVERSITY OF LONDON.—The following are the particulars relating to the Matriculation Examination:—

*Matriculation.*—There shall be two examinations for Matriculation in each year—one commencing on the second Monday in January, and the other on the third Monday in June.(d)

No candidate shall be admitted to the Matriculation Examination unless he have produced a certificate(e) showing that he has completed his sixteenth year. This certificate shall be transmitted to the Registrar at least *fourteen days* before the commencement of the examination. A fee of £2 shall be paid at matriculation. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar.(f) The examination shall be conducted by means of printed papers; but the examiners shall not be precluded from putting, for the purpose of ascertaining the competence of the candidates to pass, *viva voce* questions to any candidate in the subjects in which they are appointed to examine. Candidates shall not be approved by the examiners unless they have shown a competent knowledge in each of the following subjects, according to the details specified under the several heads:—1. Latin. 2. Any two(g) of the following languages: Greek, French, German, and either Sanskrit or Arabic.(h) 3. The English Language, English History, and Modern Geography. 4. Mathematics. 5. Natural Philosophy. 6. Chemistry.

(d) These examinations may be held, not only at the University of London, but also, under special arrangement, in other parts of the United Kingdom, or in the colonies.

(e) A certificate from the Registrar-General in London, or from the Superintendent Registrar of the district, or a certified copy of the baptismal register, is required in *every case in which it can possibly be obtained*. In other cases the best evidence procurable is admitted. The certificate of each candidate is returned to him when he inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate when the receipt of his certificate of age is acknowledged.

(f) The fee must be paid when the candidate inscribes his name on the Register of the University.

(g) No credit will be given for more than two of these languages.

(h) Candidates who desire to be examined in either Sanskrit or Arabic must give at least *two calendar months' notice* to the Registrar, and must mention the other optional language which they select.



The following are the particulars relating to the foregoing subjects of examination for the year 1883:—

**Languages.**—In Latin the following authors have been selected:—January, 1882—*Horace*: Odes, Books I. and II. June—*Livy*: Book II. The paper in Latin shall contain passages to be translated into English, with questions in history and geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. A separate paper shall be set containing questions in Latin grammar, with simple and easy sentences of English to be translated into Latin. (i) In Greek (k):—January, 1882—*Xenophon*: *Anabasis*, Book VI. June—*Homer*: *Iliad*, Book XVIII. The paper in Greek shall contain passages to be translated into English, with questions in grammar, (l) and with questions in history and geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. French—The paper in French shall contain passages for translation into English, and questions in grammar, limited to the Accidence. German—The paper in German shall contain passages for translation into English, and questions in grammar, limited (except when German is taken as an alternative for Greek) to the Accidence. Sanskrit; Arabic—The paper in Sanskrit and the paper in Arabic shall contain passages for translation into English, and questions in grammar. The English Language, English History, and Modern Geography—Orthography; writing from dictation; the grammatical structure of the language. History of England to the end of the seventeenth century; with questions in modern geography.

**Mathematics.**—Arithmetic: The ordinary rules of arithmetic; Vulgar and Decimal Fractions; Extraction of the Square Root. Algebra: Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion; Arithmetical and Geometrical Progression; Simple Equations. Geometry: The First Four Books of Euclid, or the subjects thereof.

**Natural Philosophy.** (m)—Mechanics: Composition and Resolution of Statical Forces; Simple Machines (Mechanical Powers)—Ratio of the Power to the weight in each; Centre of Gravity; General Laws of Motion, with the chief experiments by which they may be illustrated; Law of the Motion of Falling Bodies. Hydrostatics, Hydraulics, and Pneumatics: Pressure of Liquids and Gases, its equal diffusion and variation with the depth; Specific Gravity, and modes of determining it; the Barometer, the Syphon, the Common Pump and Forcing Pump, and the Air Pump. Optics: Laws of Reflection and Refraction; formation of Images by Mirrors and Simple Lenses. Heat: its Sources; Expansion; Thermometers—relations between different Scales in common use; difference between Temperature and Quantity of Heat; Specific and Latent Heat—Calorimeters; Liquefaction; Ebullition; Evaporation; Conduction; Convection; Radiation.

**Chemistry.**—Chemistry of the Non-metallic Elements, including their compounds as enumerated below, their chief physical and chemical characters, their preparation, and their characteristic tests. Oxygen, Hydrogen, Carbon, Nitrogen; Chlorine, Bromine, Iodine, Fluorine; Sulphur, Phosphorus, Silicon. Combining Proportions by weight and by volume; General Nature of Acids, Bases, and Salts; Symbols and Nomenclature. The Atmosphere—its constitution; effects of Animal and Vegetable Life upon its composition. Combustion; structure and properties of Flame; nature and composition of ordinary fuel. Water: Chemical peculiarities of Natural Waters, such as rain-water, river-water, spring-water, sea-water. Carbonic Acid; Carbonic Oxide; Oxides and Acids of Nitrogen; Ammonia; Olefiant Gas; Marsh Gas; Sulphurous and Sulphuric Acids, Sulphuretted Hydrogen. Hydrochloric Acid, Phosphoric Acid, and Phosphuretted Hydrogen; Silica.

## ENTRANCE ON PROFESSIONAL STUDIES.

In all cases the period of medical studies is supposed to extend over four years, or more exactly forty-five months; and in Scottish universities this is rigidly enforced, but in England the curriculum is so arranged in all hospital schools, that three winter and two summer sessions' attendance suffices for school work. This leaves an odd year, which may be spent in attendance on a hospital which has no school attached, provided it complies with certain conditions, or with a private medical man holding certain appointments. This extra-scholastic period may likewise be spent—and is usually best spent, especially by those seeking the higher qualifications—in clinical work in the school to which the student belongs, after he has completed his stated curriculum. But the odd year may also be taken before entering on medical-school life, thus to a certain extent simulating the ancient system of apprenticeship. Some would like to see the old system revived in some modified form. With this view we are not altogether in accord, but we freely admit that under the old system a student earned something of the aspect of drugs and of their properties; and he was taught to read, write, and compound a prescription; while nowadays he learns little or nothing of all this. Every hospital has its own pharma-

(i) Special stress is laid on accuracy in the answers to the grammar questions, and on the correct rendering of English into Latin.

(k) Candidates may substitute German for Greek.

(l) Special stress is laid on accuracy in the answers to the questions in Greek grammar.

(m) The questions in Natural Philosophy will be of a strictly elementary character.

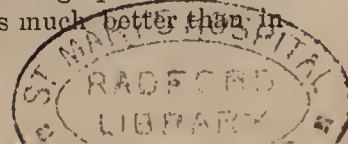
copœia, and, for the purpose of saving time, prescriptions are ordinarily, and as far as possible, written in accordance with this. But the knowledge thus conveyed to the student, except he refer directly and on all occasions to the book in question, is infinitesimal; whilst to the style of hospital dispensing the same remark applies. The period assigned to apprenticeship, which was commonly five years, was, however, far too long; and one year spent in this way, after a student has passed through his curriculum, will do as much good, if not more, than the five under the old system. Again, it is true that a student who has served some kind of an apprenticeship starts on his curriculum with certain advantages not possessed by those who come more directly from school; but they do not, as a rule, long maintain this lead, and, too frequently, have to submit to that most tedious, troublesome, and disagreeable of tasks—the unlearning of many things, more especially with regard to the true methods of study and investigation. On the whole it is best, we believe, for students to come to a medical school with a good fair mental culture of the broadest kind, and something more than a smattering of Physics, Chemistry, Botany, and Zoology.

## REGISTRATION.

As soon as the student has passed his preliminary examination, and provided he desires to enter on his studies at once, so as to make time count, he must register his certificate at the office of the General Medical Council, 299, Oxford-street, W., or at that of the Branch Registrar for Scotland (Archibald Inglis, 33, Albany-street, Edinburgh), or for Ireland (W. E. Steele, 35, Dawson-street, Dublin), as the case may be, which will save him all further trouble as regards preliminary education. This is necessary, if the student desires to spend the first year with a general practitioner or at a country hospital, so as to enable the time thus spent to be included in the period of medical study. But when the student begins by entering a medical school, he must register the actual commencement of his hospital studies as being likewise the date of the commencement of medical studies. It is now the practice for the return required by the General Medical Council to be sent in by the school authorities. *All registration must in any case take place within fifteen days of the beginning of medical studies*, at whatever time that may be; no time previous to this counting.

## II.—SCIENTIFIC EDUCATION.

As matters now stand, instruction in medical and scientific knowledge is, during the student's first year, inextricably mixed, as far as the latter subjects are in most schools taught at all. Thus, on entering a school the student is set to work at once on Chemistry, Anatomy, and Physiology; whilst in summer, Botany, Practical Chemistry, and Materia Medica are taught simultaneously. It would be far better if the student came to the study of medicine ready prepared in the scientific subjects already named, for the strictly scientific subjects clash with the purely medical, and are never greatly relished by the student, whilst Physics and Zoology are hardly ever efficiently taught in a purely medical school. Great inducements are held out by the College of Physicians of London for students to master certain branches before entering on their professional education. Thus, in Botany, Chemistry, Pharmacy, and Materia Medica no regular class certificates are required, but only certificates of having received instruction, which anyone may give. In most large public schools, science is now well taught—sometimes much better than in





medical schools: the teachers are specially selected for their scientific acquirements and their powers of communicating instruction, and not in accordance with hospital rules, by which too often the round stick is found in the square hole, and a capital teacher in Medicine or Surgery is allowed to waste his energies in working at an uncongenial subject. At such a school as Epsom, Physics, Chemistry, Botany, and Zoology are now well and efficiently taught, and a boy on leaving should have little difficulty in passing the greater part of his First Examination at the College of Physicians, which may be done immediately after registration.

The University of London, as usual, takes its own course independently of all others, and holds a special Preliminary Scientific Examination of its own. We would again urge on all intending graduates to get this over as early as possible, for with much sadness we have often seen men grinding at these preliminary subjects at a period of their career when they should have been engaged in strictly professional work. The following is a synopsis of the regulations and of the subjects on which the questions are put:—

#### PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

No candidate shall be admitted to this examination (which takes place on the third Monday of July) until he shall have completed his seventeenth year, and shall have either passed the Matriculation Examination or taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (provided that Latin was one of the subjects in which he passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the examination.

The fee for this examination shall be £5.

No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. (n) If, after payment of his fee, a candidate withdraws his name, or fails to present himself at the examination, or fails to pass it, the fee shall not be returned to him; but he shall be allowed to enter for any *two* subsequent Preliminary Scientific (M.B.) Examinations without the payment of any additional fee, provided that he give notice to the Registrar at least *fourteen days* before the commencement of the examination; such notice, in respect to the privilege aforesaid, being considered equivalent to entry.

Candidates shall be examined in the following subjects: (o)—

#### INORGANIC CHEMISTRY.

Differences between mechanical mixture, solution, and chemical combination; outlines of crystallography; formation of crystals; dimorphism; isomorphism; conditions on which the melting-point and the boiling-point of a substance depend; difference between elementary and compound substances; laws of chemical combination; equivalent weights of the elements; multiple proportions; the atomic theory; atomic value (quantivalence); molecules; molecular weights; relation between the density of a gas and its molecular weight; abnormal densities; Avogadro's hypothesis; combination of gases by volume; compound radicals; atomic and molecular combination. Meaning of chemical symbols, formulae, and equations; calculation of quantities by weight and by volume; chemical changes, and the conditions under which they occur; combination; decomposition; double decomposition; nature of acids, bases, and salts; capacity of saturation of acids and bases; nomenclature. Relation between atomic weight and specific heat; Faraday's electrolytic law; principles of spectrum analysis; diffusion of gases. Hydrogen, chlorine, bromine, iodine, fluorine; the combination of the last four elements with hydrogen. Oxygen; ozone; water and peroxide of hydrogen; the oxides and oxyacids of chlorine; chlorates and hypochlorites. Sulphur; sulphuretted hydrogen; the oxides of sulphur; sulphuric acid and the sulphates; sulphurous acid and the sulphites; chlorosulphuric acid. Nitrogen; the atmosphere and its relations to animal and vegetable life; ammonia; ammonium and its salts; the oxides of nitrogen; nitric acid and nitrates; nitrous acid and nitrites. Phosphorus; phosphoretted hydrogen; the oxides of phosphorus; phosphoric acid and the phosphates; chloride and oxychloride of phosphorus. Arsenic and its oxides; arseniuretted hydrogen; arsenious acid and its salts; arsenic acid and its salts; the sulphides of arsenic; detection of arsenic. Antimony, its oxides and sulphides; antimonuretted hydrogen; chlorides of antimony; compounds of antimonic oxide; detection of antimony. Boron; boric acid and the borates. Carbon; carbonic oxide and carbonic acid; the carbonates; carbon oxysulphide; sulphocarbonic acid; marsh-gas; ethylene; combustion; structure of flame; coal-gas; Davy lamp; principles of illumination. Silicon; silicuretted hydrogen; silicon chloride; silicon chloroform; silica and the silicates. Potassium; sodium; silver. Calcium; strontium; barium. Aluminium. Magnesium; zinc; cadmium. Lead. Manganese; iron; cobalt; nickel; chromium. Bismuth; copper; mercury; gold; tin. Platinum. The chief compounds of these metals with the more important acid radicals; the detection of these metals and their compounds, in powder or in solution.

(n) The fee must be paid when the candidate inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate with the acknowledgment of his notice.

(o) Candidates who shall pass in all the subjects of the Preliminary Scientific (M.B.) Examination, and shall also pass at the same time in the Pure Mathematics of the first B.Sc. examination, or who shall have previously passed the first B.A. examination, shall be admissible to the second B.Sc. examination.—The attention of such candidates is directed to the fact that, under the new regulations for the B.Sc. degree, this degree may be obtained by passing at the second B.Sc. examination in the three biological subjects only.

#### EXPERIMENTAL PHYSICS.

[Candidates will be expected to show a general acquaintance with the methods and apparatus by which the leading principles of Physics as enumerated below can be illustrated and applied.]

Units of measurement. The laws of motion considered experimentally. The chief forces of nature. The general properties of solids, liquids, and gases. The nature, intensity, and transmission of fluid pressure in general. The pressure of liquids in equilibrium under the action of gravity. The equilibrium of solids floating or entirely immersed in gravitating fluids. The specific gravities of substances, with the ordinary modes of determining them. Measurement of the pressure of the atmosphere and of the elastic force of gases. Diffusion of liquids and gases. Definition of work and energy; conservation and transmutation of energy.

Acoustics.—Production and mode of propagation of sound; intensity, pitch and quality. Velocity of sound in air. Influence of temperature and density. Velocity of sound in other media. Laws of reflection and refraction. Nature of musical sounds. Longitudinal vibrations of rods and of columns of air. Transverse vibrations of strings; variation in their rate of vibration by changes in their tension, length, thickness, and substance.

Heat.—Definitions of heat and temperature. Construction of instruments for the measurement of temperature. Expansion of solids, liquids, and gases under heat. Change of state; tension of vapours; latent heat. Radiant heat; its reflection, refraction, and absorption. Conduction; definition of thermal conductivity. Convection. Specific heat; mechanical equivalent of heat.

Magnetism.—Properties of magnets; induction—magnetic relations of iron and steel. Terrestrial magnetism.

Electricity.—Two electrical states, and their mutual relations. Conduction and insulation. Induction. Electric attraction and repulsion. Distribution and accumulation of electricity on conductors. Electric discharge. Voltaic electricity; the various batteries. Electro-motive force, strength of currents, resistance; Ohm's law. Heating and chemical effects of electric currents; action between currents and magnets; electro-magnetism. Induced currents; magneto-electricity. Thermo-electricity.

Optics.—Laws of propagation of light; measurement of velocity of light; photometry. Laws of reflection and refraction of light. Reflection at plane and at spherical surfaces. Refraction at plane and at spherical surfaces. Refraction through lenses, including the formation of images. Chromatic dispersion.

#### BOTANY AND VEGETABLE PHYSIOLOGY. (p)

Structure, functions, and life-history of simple unicellular plants, such as *Protococcus* and *Saccharomyces* (yeast), as types of vegetable life. Structure, functions, and life-history of *Penicillium*, *Mucor*, or some other simple fungus. Structure, functions, and life-history of *Chara* or *Nitella*. Morphology, histology, and history of the reproduction of a fern. Morphology and histology of a flowering plant; structure of a flower; homologies of leaves and floral organs; histology of ordinary vegetable tissues, such as epidermis, parenchyma, fibro-vascular tissue, and their arrangement in the stem and leaves. General principles of vegetable nutrition; food of plants; action of green parts of plants; nature and flow of sap. Growth of a flowering plant; formation of wood and bark; nature of cambium. Reproduction of a flowering plant; structure of ovule; methods of fertilisation; development of ovule into seed; distinctive characters of gymnosperms. Distinctive characters of the principal British natural orders, viz.,—*Dicotyledons*, *Ranunculaceæ*, *Cruciferae*, *Caryophyllæ*, *Leguminosæ*, *Rosaceæ*, *Umbelliferae*, *Compositæ*, *Scrophulariaceæ*, *Labiatae*, *Amentaceæ*; *Monocotyledons*, *Orchideæ*, *Liliaceæ*, *Cyperaceæ*, *Gramineæ*; *Acotyledons*, *Filices*, *Musci*, *Lichens*, *Algæ*, *Fungi*. (Description in technical language of specimens of flowering plants to be provided by the examiners.) Derivation and meaning of the following terms, and demonstration of their application on specimens (provided by the examiners):—Thalamifloral, calycifloral, corollifloral; hypogynous, perigynous, epigynous; monandrous, diandrous, etc.; individual, variety, species, genus, order, class, kingdom.

#### ZOOLOGY.

General structure and life-history of the following animals, as types of some of the principal divisions of the animal kingdom:—*Amœba*, *paramœcium*, *hydra*, *tœnia*, *lecch*, *mussel*, *snail*, *centipede*, *insect*, *lobster*, *frog*. Comparative structure of the digestive apparatus (including the teeth) in the dog, sheep, pig, and rabbit. Comparative structure and actions of the circulating and respiratory organs in the animals enumerated in the first paragraph, and also in each of the vertebrate classes. Essential structure of secretory organs; principal varieties in the structure of the liver and kidney. General plan of the nervous system in mollusca, arthropoda, and vertebrata. Proportionate development of the spinal cord and of the several encephalic centres in the ascending series of vertebrata. Respective functions of those centres. Modes of reflex action. Outlines of the comparative history of embryonic development in frog, bird, and mammal.

### III.—PROFESSIONAL EDUCATION.

It is clear that the main object sought to be attained by every scheme of medical education should be the preparation of the student for the duties of professional life. But it is equally clear that, with the short time at our disposal, it is impossible to do more than lay a solid foundation for the future acquisition of knowledge. It is not possible for a student during his short scholastic career to see every form of disease and to master the mode of treating it. Were it so, clinical Medicine and Surgery might well be the only subjects taught; but much must be taken for

(p) Candidates for this and other botanical examinations are expected to bring with them a pocket-lens or simple microscope of two powers, and also a sharp penknife.



granted which has never been seen—hence the necessity for systematic books and lectures. For the same reason, bedside teaching should as much as possible assume the shape of training in method, especially as regards the various steps to be taken in coming to a correct diagnosis; whilst experience, or the guidance of others, direct or indirect, must teach the best means of remedying the diseased condition. But before entering on the practice of his profession the young medical man must procure some form of qualification which will admit him to registration as a medical practitioner. At the present time there are no fewer than nineteen bodies whose diploma or licence entitles the owner to registration. Moreover, the value of these various qualifications, as indicated by the curriculum demanded and the character of the examination, is far from being uniform. Hence it is that a great cry has gone out for reform in this respect, especially as regards the lowest qualifications granted. And this reform will undoubtedly come, though the time is not yet. Meanwhile, the different licensing bodies exist, and exact very different amounts of class attendance, hospital practice, and even months of study. Hence it is that we must enter on the rules and regulations of the various licensing bodies in some detail, counselling the student to make his course of professional study as broad and comprehensive as possible, lest at any time he should change his mind and seek another diploma in addition to, or instead of, that he had originally in view.

The following is a list of the various licensing bodies, with the regulations attaching to each:—

#### (A.)

### REGULATIONS OF BODIES GRANTING THE DEGREE OF DOCTOR OF MEDICINE.

#### 1. UNIVERSITY OF OXFORD.

##### DEGREES IN MEDICINE.

EVERY student wishing to graduate in Medicine must have resided as a University student for three years, and have passed the examinations for the degree of B.A.; and can reckon the time of his medical study only from the final examination for Arts.

1. Candidates for the degree of B.M. are required to pass two examinations, each of which is held yearly in the end of the summer or Trinity Term, due notice being given, in the usual manner, by the Regius Professor of Medicine.

The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), the *Materia Medica*, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every candidate at this second examination will be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of those four, and in some more modern author approved by the Regius Professor, as Morgagni, for instance, Sydenham, or Boerhaave, or some German or French medical author.

Before a candidate is admitted to the first of these two examinations, he must have spent two years in professional studies after having passed the examinations required for the degree of B.A., unless he was placed in the first or second class in the School of Natural Science, in which case, if he received from the public examiners a special certificate of his attainments in Physics, Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this examination at once, and need not then be examined again in any science specified in such certificate. Nor, indeed, is he, by recent decree, re-examined in Physics or Chemistry if he has passed the Natural Science school. If he bring evidence of a first or second class in Biology, he may be admitted in the same

way. But he is equally examined, nevertheless, in every case, in Anatomy and Physiology.

Before a candidate is admitted to the second examination, he must have completed sixteen terms from the date of the same *testamur*, and two years from the date of his *testamur* in the first medical examination, and must deliver to the Regius Professor satisfactory evidence of his attendance at some first-class hospital.

No one from another University can be incorporated as a graduate in Medicine without passing these two examinations, as well as having previously passed all examinations for the B.A. degree at his own University.

An examination in State Medicine and Public Health is held annually. Candidates must have taken the degree of B.M. at Oxford.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required, three years after taking the B.M., to read publicly within the precincts of the Schools, in the presence of the Regius Professor, a dissertation composed by himself on some medical subject approved by the Professor, and to deliver to him a copy of it.

#### 2. UNIVERSITY OF CAMBRIDGE.

Cambridge is now a complete school of medicine, and all the lectures and hospital practice required by the various licensing authorities may be attended here. A student may live as cheaply as in London, and there are a vast number of science scholarships to help him on his way.

##### REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

*Degree of Bachelor of Medicine.*—A student intending to graduate in Medicine must have resided nine terms (three academical years) in the University as a member of a college or as a non-collegiate student, and have graduated in Arts, or have passed the Previous Examination. This latter may be passed in the first term of residence, or through the "Local Examinations" or the "Oxford and Cambridge School Board Examinations," before coming up to the University. By the last course time is saved, and the student is able, in his first October term, to join the Natural Science and Medical classes at the commencement of the several courses, and at the commencement of the academical year. In this case, instead of graduating in Arts, he may pass out in one of the Honour Triposes.

Five years of medical study are required, unless the student has graduated with honours as Bachelor of Arts, in which case four years of medical study are deemed sufficient.

There are three examinations for M.B.

The first examination is in—1. Chemistry and other branches of Physics; 2. Botany. Before presenting himself for it the student must have attended lectures on Chemistry, including manipulations, and on Botany.

The second examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy. The student must have completed two years of medical study, and must also produce certificates of attendance on lectures on the Elements of Comparative Anatomy, on Human Anatomy and Physiology, and on Pharmacy; and of one year's hospital practice, and of one season's dissections.

The third examination is in—1. Pathology and Practice of Physic; 2. Clinical Medicine; 3. Medical Jurisprudence; 4. Principles of Surgery; and 5. Midwifery. The candidate must have completed the course of medical study, and must produce certificates of attendance on one course of lectures on each of the following subjects:—Pathological Anatomy, Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery, with attendance on ten cases of Midwifery; and of having attended the medical practice of a hospital during three years, and the surgical practice during one year; and of having been clinical clerk for six months at a recognised hospital, or of having had special charge of hospital, dispensary, or union patients under a qualified medical practitioner; and of having acquired proficiency in Vaccination.

The third examination is divided into two parts—one including Midwifery and the Principles of Surgery, the other Pathology and the Practice of Medicine and Medical Jurisprudence; and candidates are allowed to enter the two parts of the examination at separate times.



After the third examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* examination on the subject of the thesis, as well as on other subjects of the Faculty.

The *Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept, with *viva voce* examination, and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D. provided he produces the same certificates and passes the same examinations as for M.B.

*Degree of Bachelor of Surgery.*—The candidate must have passed all the examinations for the degree of Bachelor of Medicine, and have attended the surgical practice of a recognised hospital for two years, have acted as Dresser or House-Surgeon for six months, and have gone through a course of instruction in Practical Surgery. The subjects of the examination are—1. Surgical Operations and the Application of Surgical Apparatus; 2. The Examination of Surgical Patients.

*Degree of Master in Surgery.*—The candidate must have passed all the examinations for the degree of Bachelor of Surgery two years previously. The subjects of the examination are—1. Pathology and the Principles and Practice of Surgery; 2. Clinical Surgery; 3. Surgical Anatomy and Surgical Operations.

All the examinations for medical degrees take place in the Michaelmas and Easter Terms.

For additional information respecting graduation in Cambridge, see the "Student's Handbook to the University" and the "Student's Guide to the University," published by Messrs. Deighton, Cambridge, price 1s. 6d. each.

### 3. UNIVERSITY OF LONDON.

#### BACHELOR OF MEDICINE.

This University grants degrees both in Medicine and Surgery, and certificates in subjects relating to Public Health. Those available for young students are the Bachelorships of Medicine and Surgery.

Every candidate for the degree of Bachelor of Medicine shall be required—

1. To have passed the matriculation examination in this University.
2. To have passed the preliminary scientific examination (see page 286). (Candidates for the degree of M.B. are strongly recommended by the Senate to pass the preliminary scientific examination before commencing their regular medical studies.)
3. To have been engaged in his professional studies during four years subsequently to matriculation, at one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom.
4. To pass two examinations in Medicine.

#### INTERMEDIATE EXAMINATION IN MEDICINE.

The examination shall take place once in each year, and shall commence on the last Monday in July.

No candidate shall be admitted to this examination unless he have passed the preliminary scientific examination at least one year previously, and have produced certificates to the following effect:—

1. Of having completed his nineteenth year.
2. Of having, subsequently to having passed the matriculation examination, been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the subjects in the following list:—DESCRIPTIVE AND SURGICAL ANATOMY, PHYSIOLOGY AND HISTOLOGY, PATHOLOGICAL ANATOMY, MATERIA MEDICA AND PHARMACY, GENERAL PATHOLOGY, GENERAL THERAPEUTICS, FORENSIC MEDICINE, HYGIENE, OBSTETRIC MEDICINE AND DISEASES PECULIAR TO WOMEN AND INFANTS, SURGERY, MEDICINE.
3. Of having, subsequently to having passed the matriculation examination, dissected during two winter sessions.
4. Of having, subsequently to having passed the matriculation examination, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical

chemistry; in applying tests for discovering the adulteration of articles of the *Materia Medica*, and the presence and nature of poisons; and in the examination of mineral waters, animal secretions, urinary deposits, calculi, etc.

5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—ANATOMY, PHYSIOLOGY AND HISTOLOGY (candidates may be required to show their acquaintance with such parts of Comparative Anatomy and Physiology as are included in the Examination in Zoology at the preliminary scientific examination), (a) MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY, ORGANIC CHEMISTRY.

#### M.B. EXAMINATION. (b)

No candidate shall be admitted to the second M.B. examination within two academical years of the time of his passing the intermediate examination, nor unless he have produced certificates to the following effect:—

1. Of having passed the intermediate examination in Medicine.
2. Of having, subsequently to having passed the intermediate examination, attended a course of lectures on each of two of the subjects comprehended in the list given above, and for which the candidate had not presented certificates at the intermediate examination.
3. Of having conducted at least twenty labours. (Certificates on this subject will be received from any legally qualified practitioner in medicine.)
4. Of having attended the surgical practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery.
5. Of having attended the medical practice of a recognised hospital or hospitals during two years, with clinical instruction on and lectures on Clinical Medicine. N.B.—The student's attendance on the surgical and on the medical hospital practice may commence at any date after his passing the preliminary scientific examination, or three subjects thereof, and may be comprised either within the same year or within different years; provided that in every case his attendance on surgical and medical hospital practice be continued for at least eighteen months subsequently to his passing the intermediate examination. Attendance during three months in the wards of a lunatic asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice. (c)
6. Of having, after having attended surgical and medical hospital practice for at least twelve months subsequently to passing the intermediate examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the surgical or the medical hospital practice prescribed in Clauses 4 and 5.
7. Of having acquired proficiency in Vaccination. (Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.)

The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—GENERAL PATHOLOGY, GENERAL THERAPEUTICS AND HYGIENE, SURGERY, MEDICINE, OBSTETRIC MEDICINE, FORENSIC MEDICINE.

(a) Any candidate shall be allowed, if he give notice at the time of registration, to postpone his examination in Physiology and Histology from the first M.B. examination at which he presents himself for examination in the remaining subjects until the first M.B. examination in the next or any subsequent year; but such candidate shall not be admitted to compete for honours on either occasion; and he shall not be admitted as a candidate at the second M.B. examination until after the lapse of at least twelve months from the time of his passing the examination in Physiology and Histology.

(b) Any candidate for the second M.B. examination who has passed the first M.B. examination under the former regulations will be required to have also passed the examination in Physiology at some previous first M.B. examination carried on under the present regulations; at which examination he shall not be allowed to compete for honours.

(c) The Senate regard it as highly desirable that candidates for the degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a lunatic asylum.



The examinations shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

#### BACHELOR OF SURGERY.

No candidate shall be admitted to the examination for the degree of Bachelor of Surgery unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.

2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject.

The fee for this examination shall be £5.

Candidates are examined in Surgical Anatomy and surgical operations, by printed papers; examination and report on cases, of surgical patients; performance of surgical operations upon the dead subject; application of surgical apparatus; *viva voce* interrogation.

#### MASTER IN SURGERY.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having taken the degree of Bachelor of Surgery (d) in this University.

2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University—*a.* To Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University. *b.* Or to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c.* Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. (One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. examination have been placed in the first division.)

3. Of moral character, signed by two persons.

The fee for the degree of Master in Surgery shall be £5.

The subjects of examination are—LOGIC AND PSYCHOLOGY, by printed papers. SURGERY: a commentary on a case in Surgery, by printed papers; Surgical Anatomy and Surgery, by printed papers; examination and report on cases of surgical patients in the wards of a hospital; dissection of a surgical region or performance of surgical operations; *viva voce* interrogation.

Any candidate who has taken the degree either of B.A., B.Sc. (provided that Mental and Moral Science was one branch of his examination), or M.D. in this University, is exempted from the examination in Logic and Psychology; and any candidate who has passed the second M.B. examination may at any subsequent M.S. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.

#### DOCTOR OF MEDICINE.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.

2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University—*a.* To Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University. *b.* Or to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c.* Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. (One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second M.B. examination have been placed in the first division.)

3. Of moral character, signed by two persons.

(d) Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor in Surgery; and in the case of such candidates, the attendance on surgical practice may commence from the date of the M.B. degree.

The fee for the degree of Doctor of Medicine shall be £5.(e)

The subjects of examination are—LOGIC AND PSYCHOLOGY, by printed papers. MEDICINE: a commentary on a case of Medicine or Obstetric Medicine, at the option of the candidate, by printed papers; Medicine, by printed papers; examination and report on cases of medical patients in the wards of a hospital; *viva voce* interrogation and demonstration from specimens and preparations.

Any candidate who has taken the degree either of B.A., B.Sc. (provided that Mental and Moral Science was one branch of his examination), or M.S. in this University, is exempted from the examination in Logic and Psychology; and any candidate who has passed the second M.B. examination may at any subsequent M.D. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Doctor of Medicine.

#### 4. UNIVERSITY OF DURHAM.

##### FACULTY OF MEDICINE.

There are two licences and three degrees conferred—viz., a Licence in Medicine and a Licence in Surgery, and the degrees of Bachelor in Medicine, Master in Surgery, Doctor in Medicine.

Attendance at the College of Medicine, Newcastle-on-Tyne, for one year is considered equivalent to one year of residence at Durham for the degree of B.A.

A certificate of proficiency in Sanitary Science is also awarded.

##### REGULATIONS FOR LICENCES AND DEGREES.

For the *Licences in Medicine and Surgery* the same regulations must be complied with as for the degree of Bachelor in Medicine, except that no extra Arts examination is required. The first and second examinations for the licences are each held twice yearly at the same time as those for the degree of Bachelor in Medicine. The subjects of each examination are the same as of the corresponding examination for the degree. For the Licence in Surgery the second examination is directed more particularly to Surgery. The final examination for the licences may be passed at the same time.

For the *Degree of Bachelor in Medicine*, every candidate must be not less than twenty-one years of age, and must produce certificates of age, of registration as a student in Medicine in the books of the General Medical Council, of good moral conduct, and of attendance on such lectures and hospital practice as the Warden and Senate require. (See next page.)

In addition to the certificate of registration, the candidate must produce one or other of the following certificates:—(a) A certificate of graduation in Arts at one of the following Universities, viz.:—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, the McGill College (Montreal), and Queen's College (Kingston); or (b) a certificate of having passed the preliminary or extra-professional examination for graduation in Medicine at one of the following Universities, viz.:—London, Edinburgh, Glasgow, St. Andrews, Aberdeen, and Royal (Ireland); or (c) a certificate of having passed the preliminary examination in Arts, which until 1881 qualified for the Fellowship of the Royal College of Surgeons of England, or that now qualifying for the membership of the Royal College of Physicians of London; or (d) a certificate of having passed the preliminary examination in Arts for the degrees in Medicine of the University of Durham. This examination is held twice yearly, in April and September, at the same time as the registration examination. Application for admission must be made at least one month before the examination. The fee will be £1, payable to A. Beanlands, Esq., at the University, Durham. Candidates who, at the commencement of their professional education, passed the Arts examination for registration only, may pass in the extra subjects required, either before or after presenting themselves for the first examination for the degree, but must do so before presenting themselves for the second examination.

(e) This fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.



Each candidate must have been engaged in medical and surgical study for four years from the date of his registration as a student of Medicine. It is necessary that one of the four years of professional education shall be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent, the candidate must attend at least two courses of lectures in the winter session, and two in the summer session, together with the class and test examinations held in connexion with those classes, and must also attend medical and surgical hospital practice, and clinical lectures on Medicine and Surgery, at the Infirmary. Candidates may fulfil this portion of the curriculum at any time before they present themselves for the second examination for the degree. They are not required to reside at Durham. They may spend the other three years of the curriculum either at Newcastle-upon-Tyne, or at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act, 1858.

The course of attendance on lectures and hospital practice before-mentioned is the same as that required for the membership of the Royal College of Surgeons of England, together with the following extra courses, viz.:—Botany and Therapeutics, each one course of three months' duration; Public Health and Medicine, each one course of six months' duration; medical hospital practice and clinical lectures on Medicine, each one winter and one summer session.

There are two professional examinations—the first being held twice yearly, viz., in October and April; and the second twice yearly, in June and December. The subjects of the first examination are—Anatomy, Physiology, Chemistry, and Botany.

The subjects of the second examination are—Medicine, Surgery, Midwifery and Diseases of Women and Children, Pathology, Medical Jurisprudence, Materia Medica and Therapeutics, and Public Health.

The first examination will commence on October 8, 1883, and on April 21, 1884. The second examination will commence on December 3, 1883, and on June 23, 1884.

Candidates for the first examination (for which they should present themselves at the end of their second winter session) must produce, in addition to the registration and Arts certificates above mentioned, certificates of attendance on two courses of lectures on Anatomy, one on Physiology, one on Theoretical and one on Practical Chemistry, and one on Botany, of twelve months' dissection, and of attendance on a course of Practical Physiology of not less than thirty demonstrations.

The successful candidates for the first and second examinations for the degree of Bachelor in Medicine will be arranged in three classes, in the first and second (honours) according to merit, and in the third (or pass) in alphabetical order.

N.B.—Candidates, who have completed part of their curriculum elsewhere, may pass their first examination previous to entering at Newcastle, and are recommended to commence their year of residence at Newcastle at the beginning of the winter session.

For the *Degree of Doctor in Medicine*, candidates must be of not less than twenty-four years of age, must have obtained the degree of Bachelor in Medicine, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor in Medicine, in attendance on the practice of a recognised hospital, or in the Military or Naval Services, or in medical and surgical practice.

Each candidate must write an essay, based on original research or observation, on some medical subject, selected by himself and approved by the Professor of Medicine, and must pass an examination thereon, and must be prepared to answer questions on the other subjects of his curriculum so far as they are related to the subject of the essay. A gold medal will be awarded to the candidate who presents the best essay (provided that the essay is judged to be of sufficient merit). The successful candidate will be permitted to publish his essay. The essays will be retained by the Faculty of Medicine.

For the *Degree of Master in Surgery*, candidates must have passed the examination for the degree of Bachelor in Medicine, and must have attended one course of lectures on Operative Surgery. Each candidate will have an additional paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

The examinations for the licences and degrees above-named are conducted at the College of Medicine, and in the Infirmary at Newcastle. Candidates are examined—1. By printed papers of questions; 2. Practically; 3. *Vivâ voce*.

Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must, at the same time, send the fee, £5, and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.

*The Degree of Doctor of Medicine, for Medical Practitioners of Fifteen Years' Standing, without Residence.*—The Warden and Senate of the University of Durham, with the view of affording to practitioners of fifteen years' standing an opportunity of obtaining the degree of Doctor of Medicine, have instituted a special examination, under the following regulations:—

1. That the candidate shall be registered by the General Council of Medical Education and Registration of the United Kingdom.

2. That the candidate shall have been in the active practice of his profession for fifteen years as a qualified practitioner.

3. That the candidate shall not be under forty years of age.

4. That the candidate shall produce a certificate of moral character from three registered members of the medical profession.

5. That if the candidate shall not have passed, previous to his professional examination (in virtue of which he has been placed on the Register), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics. The subjects for this examination shall be as follows:—*a.* An English essay. (A short essay on some subject to be specified at the time of the examination.) *b.* Arithmetic. *c.* Euclid—Books I. and II. *d.* Latin—Translation from Virgil, "*Æneid*," Books I. and II., together with grammatical questions. *e.* One of the following subjects:—(i.) Greek—Translation from Xenophon's "*Memorabilia*," Books I., II., with grammatical questions. (ii.) French—Translation from Voltaire's "*Charles XII.*," with grammatical questions. (iii.) German—Translation from Goethe's "*Dichtung und Wahrheit*," Book I., with grammatical questions. (iv.) Elements of Mechanics, Pneumatics, and Hydrostatics. (v.) Some treatise on Moral, Political, or Metaphysical Philosophy.

6. That if the candidate shall have passed, previous to his professional examination (in virtue of which he has been placed on the Register), a preliminary examination, he shall be required to translate into English passages in any of the parts specified below of any one of the Latin authors mentioned—Cæsar, "*De Bello Gallico*," first three books; Virgil, first three books of the "*Æneid*"; Celsus, first three books. The candidate shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern Language.

7. That the candidate shall be required to pass an examination in the following subjects:—*a.* Principles and Practice of Medicine, including Psychological Medicine and Hygiene. *b.* Principles and Practice of Surgery. *c.* Midwifery, and Diseases peculiar to Women and Children. *d.* Pathology, medical and surgical. *e.* Anatomy, medical and surgical. *f.* Medical Jurisprudence and Toxicology. *g.* Therapeutics.

8. That the fee shall be £52 10s.

9. That if the candidate shall fail to satisfy the examiners the sum of £21 shall be retained; but that if he shall again offer himself for the examination the sum of £42 only shall then be required.

An examination in accordance with the above regulations will commence on December 3, 1883, and on June 23, 1884, in the College of Medicine, Newcastle-upon-Tyne.

Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, on or before November 1, 1883, or May 1, 1884, together with the fee and the before-mentioned certificates.

#### FEES.

For registration examination, £1; extraordinary regis-



tration examination, £2; preliminary Arts examination for degrees, £1; examination for first year students, 10s.; each public examination for a licence or degree in Medicine or in Surgery, £5; a licence in Medicine, £3; a licence in Surgery, £3; a degree of Master in Surgery, £6; a degree of Bachelor in Medicine, £6; a degree of Doctor in Medicine, £6, and for practitioners of fifteen years' standing, £52 10s.; a certificate in Sanitary Science, £5 5s., and for Medical Officers of Health, £10 10s.

The Registrar or Secretary will be happy to give any information either to students or their friends. Applications with regard to examinations should be made to the Registrar, Dr. Luke Armstrong, Clayton-street West, Newcastle-upon-Tyne; all others to the Secretary, Mr. Henry E. Armstrong, College of Medicine, Newcastle-upon-Tyne.

## SCOTTISH UNIVERSITIES.

### 5. UNIVERSITY OF ST. ANDREWS.

#### ORDINARY DEGREES.

THE degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine and Master in Surgery (M.B. and C.M.) and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum and examinations for these degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for candidates for the degree of Bachelor of Medicine and Master in Surgery present some difference:—

No one shall be received as a candidate for the degree of Bachelor of Medicine and Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities and colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court.

Attendance on the lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews if the fee for such lectures be of less amount than is charged for the like course of lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

**Fees for Graduation.**—For the degree of Bachelor of Medicine and Master in Surgery £7 in respect of each of the three divisions of the examination on professional subjects; and every candidate for the degree of Doctor of Medicine, who has previously obtained the degree of Bachelor of Medicine and Master in Surgery, shall pay, in addition to the fees paid by him as a candidate for that degree, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

#### SPECIAL DEGREES.

The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always, that degrees shall not be conferred under this section to a greater number than ten in any one year.

**Regulations regarding the Examination of Registered Medical Practitioners above the Age of Forty Years.**—The examinations are held yearly, towards the end of April. The graduation fee is £52 10s. Candidates, whose certificates are approved of by the Medical Faculty, are enrolled for examination in order of application, provided they have complied with the undermentioned regulations as to certificates and deposit. Candidates for graduation shall lodge with the Professor of Medicine the following certificates

and deposit, along with their application for admission to examination:—1. Certificate of age from parish registrar, or by affidavit before a magistrate. 2. At least three certificates from medical men, of such acknowledged reputation in the profession, or of such standing in the medical schools, as shall satisfy the Senatus of the professional position and experience of the candidate. 3. A certain portion (viz., £10 10s.) of the graduation fee shall be forfeited should the candidate fail to appear at the time appointed for examination, or should he fail to graduate. 4. The examination shall be conducted both in writing and *viva voce*, and shall include the following subjects:—(1) *Materia Medica* and General Therapeutics; (2) Medical Jurisprudence; (3) Practice of Medicine and Pathology; (4) Surgery; (5) Midwifery, and Diseases of Women and Children.

### 6. UNIVERSITY OF EDINBURGH.

Three medical degrees are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not at the same time obtain the degree of Bachelor of Medicine. All candidates for these degrees must give evidence of having obtained a satisfactory general education.

#### PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

I. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the elements of Mathematics, and the elements of Mechanics; and the proficiency of students in these branches is ascertained by examination, prior to the commencement of their medical study.

II. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his medical curriculum.

III. A degree in Arts (not being an honorary degree) in any one of the universities of England, Scotland, or Ireland, or in any colonial or foreign university specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an examination in Arts by any corporate body, whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt, *pro tanto*, from preliminary examination in Arts, on the subjects comprised in the said examination of the said corporate body.

#### PROFESSIONAL EDUCATION AND EXAMINATION.

IV. No one is admitted to the degrees of Bachelor of Medicine and Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course, and two courses of not less than fifty lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates (a)—

1. That he has studied each of the following departments of medical science—viz., Anatomy, Chemistry, *Materia Medica*, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children (two courses of Midwifery of three months each being reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses), General Pathology (or, in schools where there is no such course, a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine), during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures above described; (b) Practical Chemistry, three months; Practical Mid-

(a) No course of lectures will be allowed to qualify unless the lecturer certifies that it has embraced at least one hundred lectures, or fifty lectures in conformity with the requirements of this section. Three months' courses on *Materia Medica*, Pathology, and Midwifery do not qualify.

(b) Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy with a view to a degree until they have dissected the human body at least once.



wifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical Surgery, (c) courses of the same duration as those of not less than one hundred lectures above prescribed, or two courses of three months' lectures being given at least twice a week; Medical Jurisprudence, Botany, Natural History (including Zoology), during courses including not less than fifty lectures.

2. That he has attended for at least two years the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons.

3. That he has attended during a course of not less than fifty hours' instruction the class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted by a teacher recognised by the University Court; or that he has been engaged, for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, physician, surgeon, or member of the London or Dublin Society of Apothecaries. (d)

VI. The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of medical and surgical study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of medical and surgical study must be either in the University of Edinburgh, or in some other university entitled to give the degree of Doctor of Medicine.

3. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on courses of lectures as above prescribed.

4. One year's attendance on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on courses of lectures as above prescribed.

5. Candidates may, to the extent of four of the departments of medical study required by Section V., Sub-section 1, attend in such year or years of their medical and surgical studies, as may be most convenient to them, the lectures of the teachers of Medicine specified in the foregoing Sub-section 4. Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *anni medicæ* out of the four required for the Edinburgh degrees in Medicine. Courses of lectures in these schools are regarded as equivalent to lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' courses in them, are not equivalent. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either (a) full winter courses on any two of the following subjects:—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (b) on one such course and two three months' courses on any two of the following subjects—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in (a), attendance on a third course, although unnecessary to constitute an *annus*, will also be accepted. The other subjects, and the additional courses, not given in London or Dublin, necessary for the degrees of the University, will require to be attended at this University. In provincial schools, where there are no lecturers recognised by the University Court, a candidate can have only one *annus medicus*, and this is constituted by attendance on a qualified hospital along with a course of Practical Anatomy. (But in a provincial school where there are two or more lecturers recognised by this University, a second *annus medicus* may be made by attendance on at least two six months', or one six months' and two three months' recognised courses.)

6. All candidates not students of the University availing themselves of the permission to attend the lectures of extra-academical teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the library of the University.

7. The fee for attendance on the lectures of an extra-academical teacher in Edinburgh, with a view to graduation, must be of the same amount as that exigible by medical professors in the University.

8. No teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where professors in the University are at liberty to teach two branches.

9. It is not necessary for any teacher, attendance on whose lectures was recognised before 1861 for the purposes of graduation in the University, to obtain a new recognition from the University Court; and attendance on the lectures of every such teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any teacher or teachers.

VII. Every candidate must deliver, before March 31 of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year (or that he will have done so on or before the day of graduation), and that he will not be, on the day of graduation, under

(c) The Faculty of Medicine recommend that medical students should not attend clinical surgery during their first six months' attendance on clinical medicine.

(d) Practical Pharmacy, dispensary, hospital practice, and vaccination are not reckoned as classes in making up an *annus medicus*.

articles of apprenticeship to any surgeon or other master. (This declaration, along with a statement of studies, is appended to the schedule for the final examination, and must be signed before the schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

VIII. Each candidate is examined, both in writing and *viva voce*—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; thirdly, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; fourthly, clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination in the first division of these subjects, at the period of examination immediately preceding their second winter session of professional study may be admitted to examination at that time: provided always, that students who commence their medical studies in the summer session shall not be admitted to a degree in Medicine unless their course of study, subsequent to the completion of the summer session in which they commence their medical studies, shall not be less than the minimum course of four years prescribed in Section IV.

X. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*.

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

XIII. If any candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects, either in the University or in some other school of medicine.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on a hospital, or in the Military or Naval Medical Services, or in medical and surgical practice; provided always that the degree of Doctor of Medicine shall not be conferred on any person, unless he be a graduate in Arts of one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he shall, before or at the time of his obtaining the degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, higher Mathematics, and Natural Philosophy; and provided also that the candidate for the degree of Doctor of Medicine shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those degrees. The candidate must lodge his thesis with the Dean on or before April 30 of the year in which he proposes to graduate. No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's and Master's degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.



Persons who began their medical studies before February 4, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

The fees are—for the degree of M.B. and C.M., £22; for the degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp. The fees for M.D. are required to be paid on or before July 15 in the year of graduation. Total fees and stamp for graduating as M.D. only, by regulations, for students commencing before February, 1861, £26. The above fees include all charges for the diplomas.

#### RIGHTS OF THE MEDICAL GRADUATES OF SCOTLAND ACCORDING TO THE MEDICAL ACT.

Before the passing of the Medical Act of 1858, the degree of Doctor of Medicine, granted by the universities of Scotland (as the possessor underwent a complete education and examination in all departments of Physic and Surgery), qualified the graduate to practise every branch of the medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of Her Majesty's dominions. But, according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct diplomas—one for Medicine, and another for Surgery. The universities were thus compelled, in justice to their graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit registration as regularly qualified practitioners in the whole field of their professional education. The Secretary for War some time ago issued an order that candidates for admission into the Medical Service of the Army should obtain their qualifications in Physic and Surgery from two different sources; the effect of which would have been to prevent any one university from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single university in Scotland can now qualify candidates for the military service as well as for any other public medical service in the country.

#### ARRANGEMENTS FOR THE PRELIMINARY EXAMINATIONS IN GENERAL EDUCATION.

The preliminary examinations in general education are held in the Upper Library Hall, and students matriculated for the academic year (November to November) are admitted on presenting their matriculation tickets at the door. Students matriculated for the summer only and non-matriculated students pay a fee of 10s. each, and are admitted on showing their receipts. Those who pay the fee in March will be admitted to the examination in October without further payment. Payment in October does not exempt from payment in March. The academic year is reckoned from November 1 to November 1.

Candidates are required to enter their names *in full*, and at the same time to mention the subject or subjects in which they offer themselves for examination. They are also required to state whether they have appeared for any preliminary or professional examinations at this University.

Any candidate who cannot appear personally at the time fixed to enter his name and pay the fee, must complete the schedule required for the purpose, and transmit it with an order for the fee to the Clerk of the University.

In conformity with Section I. of the statutes, examinations on the preliminary branches of extra-professional education will take place on Tuesday, Wednesday, Thursday, and Friday, October 2, 3, 4, and 5, 1883; and on Tuesday, Wednesday, Thursday, and Friday, March 14, 15, 16, and 17, 1884.

*Examination on Tuesdays.*—Arithmetic, 9 to 11 a.m.; Mathematics (Euclid, Algebra), 11.30 a.m. to 1.30 p.m.; and Higher Mathematics, 2 to 4 p.m.

*Examination on Wednesdays.*—English, 9 to 11 a.m.; Natural Philosophy, 11.30 a.m. to 1.30 p.m. Mechanics, 2 to 4 p.m.

*Examination on Thursdays.*—Latin, 9 to 11 a.m.; Logic, 11.30 a.m. to 1.30 p.m.; Moral Philosophy, 2 to 4 p.m.

*Examination on Fridays.*—Greek, 9 to 11 a.m.; French, 11.30 a.m. to 1.30 p.m.; German, 2 to 4 p.m.

#### 7. UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

Three medical degrees are conferred by this University, viz.:—Bachelor of Medicine (M.B.); Master in Surgery (C.M.); and Doctor of Medicine (M.D.); all of which are recognised by the Medical Act as qualifying for practice throughout the British dominions.

The degrees of Bachelor of Medicine and Master in Surgery, which must be taken together, may be obtained by candidates of the age of twenty-one years who have complied with the regulations as to education and examination. The degree of Doctor of Medicine may be conferred on candidates of not less than twenty-four years of age who have obtained the Bachelorship two or more years previously, and have fulfilled certain conditions to be afterwards mentioned.

The medical curriculum is as nearly as possible the same as that in the University of Edinburgh.

By an order of Her Majesty in Council, dated August 13, 1877, the following are the arrangements for Professional Examinations:—

1. Every candidate for the degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first on Chemistry, Botany, and Natural History; second, on Anatomy and Physiology; third, on Regional Anatomy, Materia Medica and Pharmacy, and Pathology; and fourth, on Surgery, Clinical Surgery, Medicine, Clinical Medicine, Therapeutics, Midwifery, and Medical Jurisprudence. The examination in Chemistry shall include Practical Chemistry; and the examinations in Anatomy and Physiology shall include Practical Anatomy, Histology, and Practical Physiology; and the examination in Surgery shall include Operative Surgery.

2. Students may appear for examination in the first of the foregoing divisions of subjects who have completed their attendance on the required courses during one winter and two summer sessions, or during one summer and two winter sessions.

3. Students who have passed the first examination may appear for examination in the second division of subjects after having completed their attendance on the requisite courses (including those of the subjects of examination), and after the lapse of two winter and three summer sessions, or of three winter and two summer sessions, from the time of the commencement of their studies.

4. Students who have passed the two previous examinations may appear for examination in the third division of subjects at any of the terms fixed for examinations by the Senate, after the conclusion of the third winter's session of attendance upon medical classes (including those of the required subjects).

5. Students who have passed the examinations in the subjects of the three previous divisions may appear for examination in the subjects of the fourth division at the first term for the final examination after the conclusion of their curriculum of study.

#### DEGREE OF DOCTOR OF MEDICINE.

The degree of Doctor of Medicine may be conferred on any candidate who shall produce evidence—*a*, that he is not less than twenty-four years of age; *b*, that he has obtained the Bachelorship two or more years previously; *c*, that he possesses a degree in Arts, or has, in addition to the preliminary examination in general education required for the Bachelorship, also passed an examination in Greek, and Logic or Moral Philosophy, together with any one of the other optional subjects included in the second part of the subjects of general education; *d*, that he has been engaged in professional study or avocation for two years after having obtained the Bachelorship. He must also lodge an inaugural dissertation, certified by him to have been composed by himself, on any subject included in the branches of knowledge embraced in the professional curriculum. Theses for the degree of M.D. must be lodged with Mr. Moir, the Assistant Clerk of Senate, on or before March 20, June 20, or October 20. No thesis will be approved unless it gives evidence of original observation, or, if it deals with the researches of others, gives a full statement of the literature of the question, with accurate references and critical investigation of the views or facts cited; mere compilations will in no case be accepted.

The fees for degrees are the same as in Edinburgh.

The examinations in General Education take place twice yearly—viz., in October and March. The examinations for



session 1883-84 will be held on Wednesday, Thursday, Friday, and Saturday, October 10, 11, 12, and 13, 1883, and Wednesday, Thursday, Friday, and Saturday, March 26, 27, 28, and 29, 1884. Those who intend to present themselves for either of these examinations are required to send in their names to the Assistant Clerk of Senate on or before September 26 or March 14. Those who are not matriculated students of the University pay a fee of 10s. on first entering their names for this examination.

The Professional Examinations are held at the following periods, viz.:—The first, second, and third in October and April (in 1883-84, beginning on October 15 and April 4); and the fourth in June and July (beginning on June 10, 1884).

#### 8. UNIVERSITY OF ABERDEEN.

The following are the degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum, and examination for the degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of medical and surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other university entitled to give the degree of Doctor of Medicine.

#### FEES FOR GRADUATION.

Each candidate for the degrees of M.B. and C.M. shall pay a fee of £5 5s. in respect of the first two professional examinations, and a fee of £10 10s. in respect of the third professional examination—each such fee of £5 5s. and £10 10s. respectively being payable at the time at which the candidate comes forward to be examined in that division in respect of which it is payable.

And every candidate for the degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp-duty which may for the time be exigible.

#### EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

### IRISH UNIVERSITIES.

#### 9. UNIVERSITY OF DUBLIN.

##### DEGREES AND LICENCES IN MEDICINE AND SURGERY.

THE degrees and licences in Medicine, Surgery, and Midwifery granted by the University are—1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery; 5. Master in Obstetric Science; and Licences in Medicine, Surgery, and Obstetric Science. Besides these degrees and licences, the University also grants a qualification in State Medicine. All students in the School of Physic intending to practise Physic must be matriculated.

##### UNIVERSITY DEGREES.

1. *Bachelor in Medicine*.—A candidate for the degree of Bachelor in Medicine must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same commencements as those at which he receives his degree of B.A.; or at any subsequent commencements, provided the requisite medical education shall have been completed, and the necessary examinations passed. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on one course of lectures on each of the following subjects:—Winter: Anatomy, Practical Anatomy, Theoretical Surgery, Chemistry, Institutes of Medicine (Physiology), Practice of Medicine, Midwifery. Summer:

Botany, Institutes of Medicine (Practical Histology), Comparative Anatomy, Materia Medica, Medical Jurisprudence, Practical Chemistry. Term Courses: Michaelmas Term—Heat; Hilary Term—Electricity and Magnetism. Six months' Dissections are also required, and one month's instruction in Vaccination.

Hospital attendance includes—1. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. 2. A certificate of personal attendance on fever cases, with names and dates of cases. The following hospitals, in addition to Sir Patrick Dun's Hospital, are recognised by the Board:—Meath Hospital, House of Industry Hospitals, Dr. Steevens's Hospital, Jervis-street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, Mater Misericordiae Hospital, St. Mark's Ophthalmic Hospital, the National Eye and Ear Infirmary. Students who shall have diligently attended the practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed, on special application to the Board of Trinity College, to count those two years as equivalent to one year spent in a recognised metropolitan hospital. N.B.—The recognition of these schools and hospitals is conditional on their students being furnished with *bond fide* certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of lectures in each course.

The qualifying course of Practical Midwifery consists of six months' instruction, including clinical lectures. Certificates of Practical Midwifery are received from (1) the Rotunda Hospital, (2) the Coombe Hospital, (3) Sir Patrick Dun's Hospital Maternity, and (4) Dr. Steevens's Hospital Maternity.

##### DEGREE EXAMINATIONS.

1. *Bachelor in Medicine*.—The candidate for the M.B. examination must have previously passed the Previous Medical Examination in all the subjects; and have lodged with the Medical Registrar, on a certain day to be duly advertised before the examination, certificates of attendance upon all the courses of study prescribed in the preceding curriculum. Candidates are then required to pass a final examination in the following subjects:—Physiological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Institutes of Medicine (Pathology and Hygiene), Therapeutics, Clinical Medicine. The fee for the *Liceat ad Examinandum* is £5. The fee for the degree of M.B. is £11.

2. *Doctor in Medicine*.—A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the degree of Bachelor in Medicine for three years. He must also read a thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic, according to regulations to be approved by the Provost and Senior Fellows. Total amount of fees for this degree, £13.

3. *Bachelor in Surgery*.—A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also have passed the M.B. examination before presenting himself at the B.Ch. examination. The curriculum comprises the following, in addition to the complete course for the degree of Bachelor in Medicine:—Operative Surgery, one course; Dissections, two courses; Ophthalmic Surgery, one course. Candidates are required to perform surgical operations on the dead subject, and will also be examined in Bandaging and Minor Surgery, and in Surgical Pathology. Fee for the *Liceat ad Examinandum*, £5. Fee for the degree of Bachelor in Surgery, £5.

4. *Master in Surgery*.—A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the degree of Bachelor in Surgery for three years; and must read a thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the degree of Master in Surgery, £11.

5. *Master in Obstetric Science*.—A Master in Obstetric Science must have passed the M.B. and B.Ch. examinations and produce certificates of having completed the following



curriculum:—1. One winter course in Midwifery. 2. Six months' practice in a recognised lying-in hospital or maternity. 3. A summer course in Obstetric Medicine and Surgery. 4. Two months' practice in the Cow-pock Institution. Existing graduates in Medicine, of the standing of M.D., are entitled to present themselves for examination without complying with Regulations 3 and 4. Fee for the degree of Master in Obstetric Science, £5.

#### UNIVERSITY LICENCES.

Candidates for the licences in Medicine, Surgery, or Obstetric Science must be matriculated in Medicine, and must have completed two years in Arts, and four years in medical studies.

1. *Licentiate in Medicine*.—The medical course and examination necessary for the licence in Medicine are the same as for the degree of M.B. A Licentiate in Medicine, on completing his course in Arts, and proceeding to the degree of B.A., may become a Bachelor in Medicine on paying the degree fees without further examination in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Medicine £5.

2. *Licentiate in Surgery*.—The surgical course and examination necessary for the licence in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Surgery, £5.

3. *Licentiate in Obstetric Science*.—The course and examination for the licence in Obstetric Science are the same as for the degree in Obstetric Science. Fee for the licence in Obstetric Science, £5.

#### 10. ROYAL UNIVERSITY OF IRELAND.

The regulations concerning the degrees in Medicine, Surgery, etc., granted by the University are as follow:—

##### THE DEGREE OF BACHELOR OF MEDICINE (M.B.).

The course for this degree shall be one of at least four years' duration.

All candidates for the degree shall, in addition to attending the lectures and complying with the other conditions to be from time to time prescribed, be required to pass the following examinations:—The Matriculation Examination; the First University Examination; the First Examination in Medicine; the Second Examination in Medicine; the Degree Examination.

A medical student from one of the Queen's Colleges, the Queen's University, or any other institution approved by the Senate, matriculated therein before October 1, 1881, who has completed at least one year of the medical curriculum in any of said Colleges, or in said University or institution, shall be entitled to credit for a year's course in this University without passing the First Examination in Arts.

The course of medical studies shall extend over at least four years, and shall be divided into periods of at least two years each, during which periods the students shall attend such courses of lectures and hospital instruction, and comply with such other conditions, as the Senate shall from time to time order. Until further order—

The first period shall comprise attendance on the following courses of medical lectures:—Chemistry, one course of at least six months; Practical Chemistry, a course of at least three months' work in a chemical laboratory; Botany, with Herborisation for practical study, and Zoology; Anatomy and Physiology; Practical Anatomy; *Materia Medica*.

The second period shall comprise attendance on the following courses of medical lectures:—Anatomy and Physiology, including Histology; Practical Anatomy; Theory and Practice of Surgery; (a) Midwifery and Diseases of Women, a six months' course; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates are further required to have attended during the first period—

*Medico-Chirurgical Hospital* (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week, during a winter session of six months.

And during the second period—

*Medico-Chirurgical Hospital* (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, during eighteen months, including

either three winter sessions of six months each, or two winter sessions of six months each and two summer sessions of three months each. The certificate of such hospital attendance must show that the student has, during a period of three months of his hospital attendance, attended either a fever hospital of repute, or the fever wards of a general hospital.

*Practical Midwifery*.—The candidate must also produce a certificate of having attended at a recognised midwifery hospital, where clinical instruction in Midwifery and Diseases of Women and Children is given, for a period of six months; or of having attended for six months at a midwifery dispensary where similar clinical instruction is given. The certificate in each case to state that the candidate has attended at twenty labours.

In addition to the above-mentioned certificates of attendance at hospitals, candidates will be also required before presenting themselves for the Degree Examination to produce the following certificates:—(i.) A certificate of personal attendance on at least ten fever cases, such certificate to be signed by the physician under whose superintendence the cases were attended. (ii.) A certificate of having compounded medicine under an apothecary or pharmaceutical chemist for at least three months. (iii.) A certificate of having received practical instruction in Vaccination, to be signed by a public vaccinator. (iv.) A certificate of having attended for three months in a recognised lunatic asylum, where clinical instruction on Mental Diseases is given.

The Senate further recommend that students should avail themselves of opportunities of attendance on lectures on Diseases of the Eye, Ear, and other special departments of Medicine and Surgery.

Candidates for Honours must satisfy the examiners at the Pass Examinations before they can be permitted to compete for Honours; and their answering at the Pass Examinations will be taken into account in determining the class of Honours which shall be awarded to them.

##### THE FIRST EXAMINATION IN MEDICINE.

Students shall be admitted to this examination after the lapse of one academical year from the time of their matriculation. Candidates may pass this examination at the same time as the First University Examination.

The subjects of this examination shall be:—Zoology; Botany; a Modern Language. Candidates who have passed in a Modern Language at the First University Examination in Arts are exempt from again presenting this subject, except as a qualification for admission to compete for Honours; the answering of the candidate in the three subjects mentioned being taken into account in awarding Honours.

Before being admitted to this examination, each candidate must produce satisfactory evidence of having completed the prescribed courses of study in the subjects of examination.

The examination in Zoology will consist of questions on the anatomy and classification either of the vertebrate or invertebrate animals—the selection between these two groups to be made by the candidates at the time of examination. They are recommended to read Huxley's "Manuals of the Anatomy of Vertebrate and Invertebrate Animals," Macalister's "Vertebrata and Invertebrata," Nicholson's "Zoology," and Mivart's "Common Frog, or Elementary Anatomy"; and for the higher portions of Zoology—Gegenbauer's "Comparative Anatomy," Macalister's "Comparative Anatomy," and Huxley's "Comparative Anatomy."

The examination in Botany will comprise the general principles of the structure and classification of plants. They may use as text-books Oliver's "Lessons in Elementary Botany," and Thomé's "Structural and Physiological Botany"; and they may usefully refer to Prantl's work on Botany.

##### THE SECOND EXAMINATION IN MEDICINE.

Students shall be admitted to this examination after the lapse of one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies.

The subjects for this examination shall be:—Anatomy; Physiology; *Materia Medica*; Chemistry.

##### THE EXAMINATION FOR THE DEGREE OF M.B.

Students shall be admitted to this examination after the lapse of one academical year from the time of passing the

(a) And after the year '883, Operative Surgery, a three months' course.



Second Examination in Medicine, provided they have completed the second period of the course of medical studies.

The subjects for this examination shall be (b)—Anatomy; Physiology; Surgery; Midwifery and Diseases of Women and Children; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates intending to present themselves at any one of the above examinations must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee at least one month previous to the examination, and must at the same time furnish evidence of having completed the course of studies prescribed by the Senate for the second period of the course of medical studies.

The fee for the first examination is £1; for the second examination, £1; and for the third, £3.

#### THE DEGREE OF DOCTOR OF MEDICINE (M.D.).

Candidates may be admitted to this degree after the lapse of two academical years from the time of obtaining the degree of M.B. All persons who were students in Medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to obtain the degree of M.D., instead of the degree of M.B., upon passing the examination for the M.B. Degree.

Candidates must give notice in writing, to the Secretaries, of their intention to present themselves, and must pay the prescribed fee of £5, at least one month previous to the examination, and must at the same time produce a certificate of having been, for at least two years, engaged in hospital or private medical or surgical practice, or in the Military or Naval Medical Service.

Every candidate shall be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment; to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon.

Every candidate shall submit to the Medical Examiners, for their approval, a thesis certified by him (or her) to have been composed by himself (or herself). No thesis shall be approved which does not contain some original or personal observations in Practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum, or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

Candidates who have been settled for a period of two years in the colonies or foreign countries may, on satisfying the Senate to that effect, and in lieu of the examination above required to be passed by persons residing in this country, upon furnishing papers on medical subjects written by them, or official reports dealing with subjects of medical science, with evidence of the papers or reports being their own original composition, have the degree conferred on them in absence.

It shall, for three years, be in the power of the Senate, in the case of medical students who, previous to their matriculation in the University, have received a medical and Arts education in institutions approved by the Senate, to give such students credit for the education in Arts which they have received therein, if they shall be satisfied, from the report of the Medical Examiners, of their proficiency in the subjects of the medical course of the University.

It shall also, for the same period, be in the power of the Senate, in cases where a complete course in Arts and Medicine has been passed by a student in such institutions as aforesaid, according to the system of such institutions, to allow him to present himself for the examination for the Degree of M.B., and to obtain such degree, if found qualified, upon the same terms as ordinary medical students of this University.

#### THE DEGREE OF MASTER IN SURGERY (M.Ch.).

This degree shall be conferred only on graduates in Medicine of the University. (c)

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the

prescribed fee of £5 at least one month previous to the examination.

The examination for this degree shall comprise the Theory and Practice of Surgery, including Operative and Clinical Surgery.

#### THE DIPLOMA IN OBSTETRICS.

This diploma shall be conferred only on graduates in Medicine of the University.

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previous to the examination.

The examination for this diploma shall comprise the Theory and Practice of Midwifery, and the use of obstetrical instruments and appliances.

*Exhibitions.*—The following exhibitions may be awarded annually by the Senate:—At the First Examination in Medicine, two first-class at £30, and two second-class at £15. At the Second Examination in Medicine, two first-class at £40, and three second-class at £20. At the M.B. Degree Examination, two first-class at £50, and three second-class at £25. Provided that an exhibition shall not be awarded to any candidate at the First Examination in Medicine if a longer interval than three academical years shall have elapsed from the time of matriculation; or at the Second Examination in Medicine if a longer interval than two academical years shall have elapsed from the time of passing the First Examination in Medicine; or at the M.B. Degree Examination if a longer interval than three academical years shall have elapsed from the time of passing the First Examination in Medicine.

*Prizes.*—A sum of £95 may be placed annually at the disposal of the Examiners in Medicine to be awarded in prizes for superior answering in special subjects, at their discretion.

#### (B.)

### BODIES GIVING LICENCES OR OTHER FORMS OF QUALIFICATION NOT BEING DEGREES IN MEDICINE.

#### A.—England.

##### 1. THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

THE licence of this College is a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Local Government Board as a qualification in Surgery as well as in Medicine.

The College will, under its charter, grant licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery (which licences are not to extend to make the Licentiates Members of the Corporation), to persons who shall conform to the following by-laws.

I.—Every candidate for the College licence (except when otherwise provided by the by-laws) who commenced professional study after March 25, 1880, will be required, at the times prescribed in Section II. for the respective examinations, to produce satisfactory evidence—

1. Of having passed, before the commencement of professional study, one of the preliminary examinations on subjects of general education recognised by the General Medical Council.

2. Of having been registered as a medical student in the manner prescribed by the General Medical Council, at least forty-five months previously to admission to the third or final examination, unless specially exempted. *Note A.*—Professional studies commenced before registration, except in the cases of Chemistry, Materia Medica, Botany, and Pharmacy, will not be recognised.

3. Of having been engaged in professional studies at least forty-five months, during which not less than three winter sessions and two summer sessions shall have been passed at one or more of the medical schools recognised by the College. One winter session and two summer sessions may be passed in one or more of the following ways:—*a.* Attending the practice of a hospital, infirmary, or other institution duly recognised as affording satisfactory opportunities for professional study. *b.* Receiving instruction as a pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery. *c.* Attending lectures on one or more of the required subjects of professional study at a duly recognised place of instruction.

4. Of having received instruction in Chemistry, including Chemical Physics, meaning thereby heat, light, and electricity.

5. Of having received instruction in Practical Chemistry.

6. Of having received instruction in Materia Medica.

7. Of having received instruction in Botany.

8. Of having received instruction in Practical Pharmacy. *Note B.*—By

(b) After 1883 all candidates for the degree of M.B. will be required to exhibit proficiency in the use of the ophthalmoscope and the laryngoscope.

(c) After 1883 all candidates for the degree of M.Ch. will be required to produce a certificate of having attended a three months' course in Operative Surgery; they will also be required to pass a special written examination.



this is meant instruction in Practical Pharmacy by a registered medical practitioner, or by a member of the Pharmaceutical Society of Great Britain, or in a public hospital, infirmary, or dispensary.

9. Of having attended a course of lectures on Anatomy.  
10. Of having performed Dissections during not less than twelve months.  
11. Of having attended a course of lectures on General Anatomy and Physiology.

12. Of having attended a separate practical course of General Anatomy and Physiology.

13. Of having attended a course of lectures on the Principles and Practice of Medicine.

14. Of having attended a course of lectures on the Principles and Practice of Surgery.

15. Of having attended a course of lectures on Midwifery and Diseases peculiar to Women. A certificate must also be produced of attendance on not less than twenty labours, which certificate must be signed by one or more legally qualified practitioners.

16. Of having undergone systematic practical instruction in the departments of Medicine, Surgery, and Obstetric Medicine. *Note C.*—Under this clause the candidate will be required to show that he has been personally exercised in practical details, such as—(1) The application of anatomical facts to the investigation of disease; (2) the methods of examining various organs in order to detect the evidence of disease or the effects of accidents; (3) the employment of instruments used in diagnosis and treatment; (4) the examination of normal and diseased structures, whether recent or in a museum; (5) the chemical examination of morbid products; (6) operations on the dead body; (7) post-mortem examinations.

17. Of instruction and proficiency in the practice of vaccination. *Note D.*—The certificate must be such as will qualify its holder to contract as a public vaccinator under the regulations, at the time in force, of the Local Government Board.

18. Of having attended a course of lectures on Pathological Anatomy.

19. Of having attended demonstrations in the post-mortem room during the whole period of attendance on clinical lectures (see Clause 22).

20. Of having attended a course of lectures on Forensic Medicine.

21. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and Surgery during three winter and two summer sessions. *Note E.*—No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of clinical instruction in the wards of a recognised lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

22. Of having attended during nine months clinical lectures on Medicine, and also during nine months clinical lectures on Surgery; and of having been engaged during a period of three months in the clinical study of Diseases peculiar to Women.

23. Of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months. *Note F.*—These duties may be discharged at a general hospital, infirmary, or dispensary, or parochial or union infirmary, duly recognised for this purpose, or in such other manner as shall afford sufficient opportunity for the acquirement of practical knowledge.

The certificates of attendance on the several courses of lectures must include evidence that the student has attended examinations in each course.

II.—*Professional Examinations.*—There are three professional examinations, called the First Examination, the Second Examination, and the Third or Final Examination, each being partly written, partly oral, and partly practical. These examinations will be held in the months of January, April, July, and October, unless otherwise appointed.

*The First Examination.*—The subjects of the First Examination are—Chemistry and Chemical Physics, meaning thereby heat, light, and electricity; Materia Medica, Medical Botany, and Pharmacy; Osteology. (Schedules indicating the range of subjects in the examinations, in Chemistry and in Materia Medica, Medical Botany, and Pharmacy, may be obtained together with the regulations.) A candidate will be admitted to the First Examination on producing evidence of having been registered as a medical student by the General Medical Council, and of having complied with the regulations prescribed in Section I., Clauses 4, 5, 6, 7, and 8. The fee for admission to the First Examination is £5 5s., being part of the entire fee for the licence; and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the First Examination will not be re-admitted to examination until after the lapse of three months from the date of rejection.

*The Second Examination.*—The subjects of the Second Examination are Anatomy and Physiology. (A schedule indicating the range of subjects in the examination in Physiology may be obtained with the regulations.) A candidate will be admitted to the Second Examination on producing evidence of having passed the First Examination, of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised medical school or schools, and of having complied with the regulations prescribed in Section I., Clauses 9, 10, 11, and 12. The fee for admission to the Second Examination is £5 5s., being part of the entire fee for the licence; and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the Second Examination will

not be re-admitted to examination until after the lapse of not less than three months from the date of rejection.

*The Third or Final Examination.*—The subjects of the Final Examination are—Medical Anatomy and Pathology, and the Principles and Practice of Medicine and Therapeutics; Surgical Anatomy and Pathology, and the Principles and Practice of Surgery; Midwifery, and Diseases peculiar to Women. Forensic Medicine, Public Health, and Therapeutics are subjects included in the Final Examination. A candidate will be admitted to the Third or Final Examination on producing evidence—(1) Of being twenty-one years of age; (2) of moral character; (3) of having passed the Second Examination; (4) of having studied Medicine, Surgery, and Midwifery in accordance with the regulations prescribed in Section I., Clauses 3 and 13 to 23. The fee for admission to the Third or Final Examination is £5 5s., being part of the entire fee for the licence, and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the Third or Final Examination will not be re-admitted to examination until after the lapse of six months from the date of rejection.

The fee for the licence is £15 15s.

Any candidate who shall produce satisfactory evidence of having passed an examination on any of the subjects of the First Examination, conducted at a university in the United Kingdom, in India, or in a British colony, will be exempt from re-examination on those subjects in which he has passed.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on those subjects.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology required for a degree in Medicine or Surgery at a university in the United Kingdom, in India, or in a British colony, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on those subjects.

Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery.

Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery.

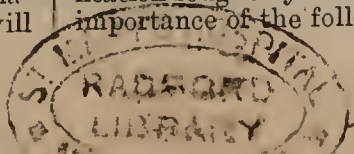
Any candidate who shall have obtained a foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

## 2. THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

### REGULATIONS RESPECTING THE DIPLOMA OF MEMBER OF THE COLLEGE.

#### SECTION I.—*Preliminary General Education and Examination.*

By far the most important qualification in this country is that of the Royal College of Surgeons of England, inasmuch as almost all English and many Scottish and Irish students become candidates for the Membership of that body. The College consists of two grades—Fellows and Members. The Fellowship is still partly honorary, sometimes being conferred on Members of a certain standing, but is now only obtainable by examination. The Membership is the qualification sought by students leaving their hospitals; hence the importance of the following regulations:—





I. Candidates are required, before the commencement of their professional education, to pass a preliminary examination recognised by the General Medical Council, and to obtain a certificate of having been registered by that Council. N.B.—In the case of any colonial, Indian, or foreign student, not registered by the General Medical Council, the conditions of admission to the professional examinations for the diploma will be determined by the Council of the College.

#### SECTION II.—Professional Education.

I. The following are recognised modes of commencing professional education :—

1. Attendance on the practice of a hospital or other public institution recognised by this College for that purpose.
2. Instruction as the pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union work-house, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.
3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

II. Candidates, prior to their admission to the first or primary examination on Anatomy and Physiology, will be required to produce the following certificates, viz. :—

1. Of having, prior to the commencement of professional study, been registered by the General Medical Council.
2. Of having attended lectures on Anatomy during two winter sessions.
3. Of having performed Dissections during not less than two winter sessions.
4. Of having attended lectures on General Anatomy and Physiology during one winter session.
5. Of having attended a practical course of General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class.

*Note A.*—By the practical course referred to in Clause 5, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not hereby intended that the learners shall perform vivisections.

*Note B.*—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

III. Candidates, prior to their admission to the second or pass examination on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, will be required to produce the following certificates, viz. :—

1. Of being twenty-one years of age.
2. Of having been engaged, subsequent to the date of registration by the General Medical Council, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge.
3. Of having attended lectures on Surgery during one winter session.
4. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 3.

*Note C.*—The course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person, or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents, on the living person, or on the dead body. The performance, where practicable, of the operations of surgery on the dead body. The use of surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy, and otherwise.

5. Of having attended one course of lectures on each of the following subjects, viz. :—Chemistry, Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours); Pathological Anatomy during not less than three months.

*Note D.*—The course of lectures on Chemistry included in Clause 5 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

6. Of having studied Practical Pharmacy during three months.
7. Of having attended a three months' course of Practical Chemistry (with manipulations), in its application to medical study.
8. Of instruction and proficiency in the practice of Vaccination.

*Note E.*—The certificate of instruction in Vaccination must be such as will qualify its holder to contract as a public vaccinator under the regulations at the time in force of the Local Government Board.

*Note F.*—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

9. Of having attended, at a recognised hospital or hospitals, the practice of Surgery during three winter(a) and two summer(b) sessions.
10. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.

*Note G.*—It is intended that the candidate should receive the instruction required by Clause 10 at an early period of his attendance at the hospital.

11. Of having, subsequently to the first winter session of attendance on surgical hospital practice, attended, at a recognised hospital or hospitals, clinical lectures on Surgery during two winter and two summer sessions.

12. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken

(a) The winter session comprises a period of six months, and, in England, commences on October 1, and terminates on March 31.

(b) The summer session comprises a period of three months, and, in England, commences on May 1, and terminates on July 31.

charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.

13. Of having attended, during the whole period of attendance on surgical hospital practice (see Clause 9), demonstrations in the post-mortem rooms of a recognised hospital.

14. Of having attended, at a recognised hospital or hospitals, the practice of Medicine, and clinical lectures on Medicine, during one winter and one summer session.

N.B.—Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

#### SPECIAL NOTICE.

I. Candidates commencing their professional studies on or after October 1, 1882, and pursuing those studies in recognised medical schools in England, will be required, before presenting themselves for the Primary or Anatomical and Physiological Examination for the diploma of Member of the College, to produce certificates of having passed an examination in Elementary Anatomy and Physiology, such examination to be conducted by their teachers at the several medical schools.

1. The periods at which the examination shall be held will be determined by the teachers at the several medical schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the examination, and the date of their presenting themselves for the Primary Examination at the College.

2. It shall be left to the teachers at the several medical schools to determine the nature and extent of the examination in Elementary Anatomy and Physiology.

II. Candidates commencing their professional education on or after October 1, 1882, will not be admitted to the second or Pass Examination until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases, viz. :—

1. When a candidate, before presenting himself for the primary examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma.

2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the primary examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the primary examination for the Fellowship, it being required in such case that not less than one year of attendance on the Surgical Practice of a recognised hospital shall intervene between the date of his passing the primary examination for the Fellowship and the date of his presenting himself for the second or pass examination for the diploma of Member.

3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the primary examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the primary examination and the date of his presenting himself for the second or pass examination for the diploma of Member.

4. When a candidate, owing to illness duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the primary examination on the completion of his second year of professional study.

5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the primary examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

#### SECTION III.

I. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science.

II. Certificates will not be recognised from any hospital in the United Kingdom unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any school of Anatomy and Physiology or Midwifery, unless the teachers in such school be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any school of Surgery, unless the teachers in such school be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

III. No metropolitan hospital will be recognised by this College which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients.

IV. The recognition of colonial hospitals and schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial hospitals and schools in England.

V. Certificates of attendance upon the practice of a



recognised provincial or colonial hospital, unconnected with, or not in convenient proximity to, a recognised medical school, will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College; and in such cases clinical lectures will not be necessary, but a certificate of having acted as dresser for a period of at least six months will be required.

VI. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from candidates for their diploma, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in the case of candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities, upon the production of the several certificates required for their degree by the authorities of such universities, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

VII. Members or licentiates of any legally constituted College of Surgeons in the United Kingdom, and graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

VIII. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College will be admitted to examination on adducing, together with their diploma or degree, proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

#### SECTION IV.—Professional Examination.

This examination is divided into two parts.

1. The first or primary examination, in Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body.

2. The second, or pass examination, on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, (c) is partly written, partly oral, and partly on the practical use of surgical apparatus, and the practical examination of patients.

3. The primary examinations are held in the months of January, April, May, July, and November, and the pass examinations generally in the ensuing week, respectively. (d)

4. Candidates will not be admitted to the primary examination until after the termination of the second winter session of their attendance at a

(c) Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions, viz.:—(1.) The production by the candidate of a degree, diploma, or licence in Medicine and Midwifery entitling him to register under the Medical Act of 1858; or a degree, diploma, or licence in Medicine and Midwifery of a colonial or foreign university approved by the Council of the College. (2.) A declaration by the candidate, prior to his admission to the pass examination, that it is his intention to obtain either of the qualifications in Medicine and Midwifery mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said qualification or proof of having passed the several examinations entitling him to receive the same.

(d) The required certificates, whether for the primary or pass examination, must be forwarded through the post not less than fourteen clear days prior to the date of each examination; except in the case of a referred candidate whose term of additional study will not expire until the date of the examination, in which case a written application must be sent in by him fourteen clear days before the date of the examination in lieu of the certificates, such certificates to be produced the day before the examination.

recognised school or schools; nor to the pass, or surgical examination, until after the termination of the fourth year of their professional education.

5. The fee of £5 5s., paid prior to the first admission to the primary examination, is retained whether the candidate pass or fail to pass the examination, but is allowed as part of the whole fee of £22 payable for the diploma. A candidate, after failure at any primary examination, is required, on admission to any subsequent primary examination, to pay a further fee of £3 3s., which is retained, whether he pass or fail to pass the examination, and which further fee is not allowed as part of the whole fee of £22 for the diploma.

6. The fee of £16 15s. is payable prior to each admission to the pass examination; but on each occasion of failure the balance of £11 10s. is returned to the candidate.

7. A candidate having entered his name for either the primary or pass examination, who shall fail to attend, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend.

8. A candidate referred on the primary examination is required, prior to his admission to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during not less than three months subsequently to the date of his reference. (d)

9. A candidate referred upon the primary examination, who shall not obtain more than half of the total minimum number of marks, is not re-admitted to examination until after the lapse of six months, and is then required to produce a certificate of the performance of dissections during not less than three months, and of having pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during six months subsequently to the date of his reference. (d)

10. A candidate referred on the pass examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on Clinical Surgery, subsequently to the date of his reference. (d)

11. A candidate, referred on the pass or surgical examination for the diploma of Member, who shall have exhibited such extreme ignorance in the examination as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, is required, before his admission to re-examination, to produce a certificate of having attended the surgical practice and clinical lectures on surgery of a recognised hospital for a further period of nine or twelve months, as the Court shall determine. (d)

#### 3. SOCIETY OF APOTHECARIES (ENGLAND).

Every candidate for a certificate of qualification to practise as an apothecary will be required to produce testimonials

—1. Of having passed a preliminary examination in Arts, as a test of general education. 2. Of having attained the full age of twenty-one years. 3. Of good moral conduct. 4. A certificate of three months' Practical Pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner. 5. Of having pursued a course of medical study in conformity with the regulations of the Court.

The course of medical study must occupy at least four years, of which not less than three winter and two summer sessions must be passed at a recognised school or hospital.

*Course of Study.*—Every candidate must attend the following lectures and medical practice: each winter session to consist of not less than six months, to commence on October 1; each summer session to commence on May 1.

First Year.—Winter Session: Chemistry; Anatomy and Physiology, including dissections and demonstrations. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session: Anatomy and Physiology, including dissections and demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children; Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session: Principles and Practice of Surgery; Clinical Medical Lectures; Morbid Anatomy; Pathology and Clinical Medical Practice. Summer Session: Practical Midwifery and Vaccination; Morbid Anatomy; Clinical Medical Practice.

No certificates of lectures, or of anatomical instructions delivered in private to particular students apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.

*Examination in Arts.*—This examination will be held at the Hall of the Society on Thursday, Friday, and Saturday, January 10, 11, and 12, 1884; April 3, 4, and 5; September 11, 12, and 13.

#### SYLLABUS OF SUBJECTS FOR EXAMINATION IN ARTS. (a)

1. *The English Language*—Including grammar and composition; writing

(a) The examiners recommend the study of one of the following:—English: Angus's, Adams's, or Mason's Grammar, and Earle's Philology. English History: Bright's History of England, and Green's "Short History of the English People." Mechanics: Wormell's or Newth's Natural Philosophy, or Girdlestone's Mechanics. Chemistry: Roscoe's Elementary Chemistry.



sentences in correct English upon a given theme; writing correctly from dictation; explaining the construction of sentences; pointing out the grammatical errors in sentences ungrammatically expressed; giving the derivation and definition of words in common use.

2. *English History*—From the accession of James I. to the death of Cromwell.

3. *Modern Geography*—Including the elements of physical geography.

4. *The Latin Language*—Including translations from the original, and grammar. January Examination: Cicero—"De Amicitia." April Examination: Horace's Odes, Books I. and II. September Examination: Livy—Book XXI.

5. *Mathematics*—Arithmetic, including vulgar and decimal fractions. Algebra, including simple equations. The First Two Books of Euclid, or the subjects thereof. (b)

6. *Elementary Mechanics*—Of solids and fluids, comprising the elements of Statics, Dynamics, and Hydrostatics.

7. (a) *Greek*—Lucian: "Somnium." Grammatical questions. (b) *French*—Emile Souvestre: "Un Philosophe sous les Toits." Translation from English into French. Grammatical questions. (c) *German*—Goethe: "Knabenjahre 1749-1759" (Pitt Press Edition). English into German. Grammatical questions. (d) *Elementary Chemistry*—Inorganic.

**Professional Examinations.**—The Court of Examiners meet in the Hall every Wednesday and Thursday, where candidates are required to attend at 4.30 p.m. Every candidate intending to offer himself for examination must give seven days' notice previous to the day of examination, and must at the same time deposit all the required certificates, with the fee, at the office of the Beadle, where attendance is given daily, from ten to four o'clock (Saturdays excepted).

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

The first examination, which may be passed after the second winter session, embraces the following subjects:—Physicians' Prescriptions and Pharmacy; Anatomy and Physiology; General and Practical Chemistry, conducted in the Laboratory at the Hall of the Society; *Materia Medica* and Botany; Histology.

**Testimonials required of Candidates for the First Examination.**—Of having passed an examination in Arts, recognised by the Medical Council; of having completed the curriculum of study to the close of the second winter session; of having attended three months' Practical Pharmacy; and of good moral conduct. Any candidate who presents himself for the first examination and is rejected may be admitted to re-examination at the expiration of three calendar months.

**The Second Examination.**—At the termination of the medical studies: Principles and Practice of Medicine, including an examination on the living subject; Pathology and Therapeutics; Midwifery, including the diseases of women and children; Forensic Medicine and Toxicology; Microscopical Pathology.

**Certificates required of Candidates for the Second or Pass Examination.**—Of having completed four years' medical study, including the period spent at the hospital; of being twenty-one years of age; and of good moral conduct. Of having passed the first examination. Of having completed the prescribed curriculum of study, including a personal attendance of twenty cases of Midwifery (a certificate of which will be received from any registered practitioner); and of having received instruction in practical Vaccination, and vaccinated not less than twenty cases (this certificate must be obtained from a public vaccinator recognised by the Local Government Board). Of having served the office of clinical clerk at a recognised hospital during the period of six weeks, at least. Of having been examined at the class examinations instituted by the various lecturers and professors of their respective medical schools and colleges. No rejected candidate for the licence can be re-examined until the expiration of six calendar months from his former examination.

**Modified Examinations.**—1. All graduates in Medicine of British universities will be admitted to a clinical and practical examination in the Practice of Medicine, Pathology, and Midwifery. 2. Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a clinical and practical examination in the Practice of Medicine, Pathology, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of the King and Queen's

College of Physicians, Ireland; the joint Licence of the Royal Colleges of Physicians and Surgeons, Edinburgh; or for the single Licence of the College of Physicians, Edinburgh; the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first professional examination for the degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, London, or Durham; or the second part of the professional examination for the degree of M.B., or Master in Surgery, in the Universities of Edinburgh, Aberdeen, St. Andrews, and Glasgow; or the first and second examination for medical and surgical degrees in the Irish universities; or the first examination for the Licence of the Apothecaries' Company, Dublin; or the first and second examinations of the Royal College of Physicians of London; the first of the Royal College of Surgeons, England, together with the first examination of the Royal College of Physicians, London, will be admitted to a single examination in Anatomy and *Materia Medica* (to those candidates who have not undergone an examination in those subjects), Practice of Medicine (including Clinical Medicine), Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, which examination will be partly written and partly *viva voce*. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; and the Royal College of Surgeons, Ireland, will have to undergo the two examinations, but will be exempt from writing on Anatomy and Physiology in their first examination.

5. The cases of graduates of colonial and foreign colleges or universities will be considered on their respective merits.

The examination of candidates for certificates of qualification to act as Assistant in compounding and dispensing medicines will be as follows:—In translating physicians' prescriptions; in the British Pharmacopœia; in Pharmacy, Pharmaceutical Chemistry, *Materia Medica*, and Medical Botany. No rejected candidate as an Assistant can be re-examined until the expiration of three calendar months from his former examination.

**Fees.**—For a certificate of qualification to practise, £6 6s., half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the first examination, £3 3s., which sum is retained in case of rejection, and accounted for subsequently; for the second examination, £3 3s.; for an Assistant's certificate, £2 2s., which sum is retained in case of rejection, and accounted for subsequently.

**Prizes** are annually offered for proficiency in the knowledge of *Materia Medica* and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree. Also two prizes for proficiency in the knowledge of Botany, consisting of a gold medal to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree.

**Medical and Surgical Scholarships.**—Each Scholarship is of the annual value of £100, and is tenable for two years on certain conditions. It is open to all students of the medical profession whose standing at the time of the examination is not less than four and not more than five years from the date of their registration, and who have obtained and possess an English medical qualification.

## B.—Scotland.

In Scotland, besides the Universities, there are three licensing bodies, viz.:—

4. ROYAL COLLEGE OF PHYSICIANS, EDINBURGH
5. ROYAL COLLEGE OF SURGEONS, EDINBURGH;
6. FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The first alone can give a qualification in Medicine; the two latter can give only Surgical qualifications. But each of the surgical licensing bodies has joined with the College of Physicians of Edinburgh, so that a candidate can, through a single set of examinations, obtain a qualification both in Medicine and in Surgery. We give the regulations to be

(b) Euclid's Axioms will be required, and no proof of any proposition will be admitted which assumes the proof of anything not proved in preceding propositions in Euclid.



observed by candidates for the double qualification of Edinburgh, as there is but little difference between these and the regulations required for the other above-named qualifications.

#### ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the student may obtain the diplomas of both Colleges. The general principle of this joint examination is, that it shall be conducted by a board in which each body is represented in those branches which are common to both Medicine and Surgery; but that the College of Physicians shall take exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. The object of the joint examination is to give to students facilities for obtaining from two separate bodies, and at less expense, a qualification in Medicine and a qualification in Surgery. Students passing that examination successfully will be enabled to register two qualifications under the Medical Act—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh. The arrangement for thus conferring a double qualification by the co-operation of the two Colleges is in conformity with Section XIX. of the Medical Act, and received the special sanction of the General Council of Medical Education and Registration.

Every candidate must have completed the age of twenty-one years, and must have followed his course of study in a university; or in an established school of medicine, as defined below; or in a provincial school specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate.

All candidates must have passed the complete examination in general education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council,—at the commencement of their professional studies.

Candidates commencing professional study after September 16, 1866, must have been engaged during forty-five months after passing the examination in general education in professional study, which period shall include not less than four winter sessions' or three winter and two summer sessions' attendance at a recognised medical school, and must have completed the following curriculum:—

Anatomy, two courses of lectures in distinct sessions, six months each, and Practical Anatomy, twelve months; or, at the option of the candidate, Anatomy, one course, six months, and Practical Anatomy, eighteen months.

Chemistry, one course, six months.

Practical or Analytical Chemistry, one course, three months.

Materia Medica, one course, three months.

Physiology, not less than fifty lectures.

Practice of Medicine, one course, six months.

Clinical Medicine, one course, six months.

Medicine (a third course, which may either be Practice of Medicine or Clinical Medicine, at the option of the student), one course, six months.

Principles and Practice of Surgery, one course, six months.

Clinical Surgery, one course, six months.

Surgery (a third course, which may either be Principles and Practice of Surgery, or Clinical Surgery, at the option of the student), one course, six months.

Midwifery and Diseases of Women and Children, one course, three months.

Medical Jurisprudence, one course, three months.

Pathological Anatomy, one course, three months.

The candidate must also produce the following certificates:—

a. Of having attended six cases of labour under the superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner.

b. Of having attended, for three months, instruction in Practical Pharmacy. The certificate to be signed by the teacher, who must be a member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary,

or a registered practitioner who dispenses medicine to his patients.

c. Of having attended for twenty-four months a public general hospital containing, on an average, at least eighty patients.

d. Of having attended for six months the practice of a public dispensary specially recognised by either College, or of having been engaged for six months as visiting assistant to a registered practitioner.

e. Of having been instructed in Vaccination. The certificate to be signed by the teacher, who must be a registered practitioner.

Students are strongly recommended to avail themselves of any opportunities which they may possess of attending, in addition to the courses of instruction which are absolutely required, lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy, and of obtaining practical instruction in the use of the Microscope.

There are two professional examinations, each partly in writing and partly oral. The first embraces Anatomy, Physiology, and Chemistry; and no candidate can be admitted to it before the end of his second winter session. The second embraces Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence. No candidate can be admitted to it sooner than forty-five months after passing the examination in general education, or before he has attained the age of twenty-one years.

Candidates who have passed the First Professional Examination in Anatomy, Physiology, and Chemistry, at any of the licensing boards recognised by the Medical Act, will be admissible to the Second Professional Examination on producing certificates of the whole course of study prescribed, of having passed their Preliminary and First Professional Examinations, and of having been registered. If any of the three subjects of the First Professional Examination have been omitted, such candidates will have to undergo an examination on the omitted subjects; and none of the subjects of the Second Examination will be omitted even if some of them should have formed part of the First Examination by another board.

In addition to the written and oral examinations, all candidates shall be subjected to practical clinical examinations in Medicine and Surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, surgical appliances, bandages, etc.

No candidates shall be admissible to examination who has been rejected by any other licensing board within the three preceding months.

#### ROYAL COLLEGE OF PHYSICIANS, EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Candidates passing the examination for the double qualification of these two bodies will be entitled to register two qualifications under the Medical Act, namely—Licentiate of the Faculty of Physicians and Surgeons of Glasgow, and Licentiate of the Royal College of Physicians of Edinburgh. The curriculum of study embraces a course of Medicine, in addition to the subjects required for a diploma of the Faculty.

#### C.—Ireland.

##### 7. KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

This body consists of Fellows, Members, and Licentiates

##### THE LICENCE IN MEDICINE.

The regulations relating to Licentiates are as follows:—Candidates must produce—1. Evidence of having been engaged in the study of Medicine for four years. 2. A certificate of having passed the preliminary examination of one of the recognised licensing corporations before the termination of the second year of medical study. 3. Certificates of having studied at a school or schools recognised by the College, the following subjects, viz.:—Practical Anatomy, two courses; and Physiology or Institutes of Medicine, Botany, Chemistry, Practical Chemistry, Materia Medica, Practice of Medicine and Pathology, Surgery, Midwifery, Medical Jurisprudence, one course each. 4. Certificates of having attended a medico-chirurgical hospital in which regular courses of clinical lectures are delivered, together



with clinical instruction, for twenty-seven months. 5. Of having been in attendance during at least three months on a clinical hospital which contains wards for the treatment of infectious fevers, and of having daily recorded observations on at least five cases of fever. 6. Of having attended Practical Midwifery and Diseases of Women for six months at a lying-in hospital or maternity recognised by the College; or, where such hospital attendance cannot have been obtained during any period of the student's course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; the certificate in either case to state that not less than twenty labour cases have been actually attended. 6. Certificates of character from a Fellow of the College, or from two registered practitioners.

A candidate who has already obtained a medical or surgical qualification recognised by the College is only required to produce his diploma or certificate of registration, a certificate of Practical Midwifery, evidence of the study of fever, and testimonials as to character.

*Examination for the Licence in Medicine.*—The examination consists of two parts. The subjects of the first part, or previous examination, are—Anatomy, Physiology, Chemistry, and *Materia Medica*. The subjects of the second part, or final examination, are—Practice of Medicine, Medical Jurisprudence, Midwifery, Clinical Medicine, Pathology, Hygiene, and Therapeutics.

Examinations in the first part are held quarterly, in January, April, July, and October. Examinations in the final or second part are held monthly (except in August and September) in the week following the first Friday of each month.

All candidates for the second or final examination (with the exception below specified)(a) are examined in the Practice of Medicine at the bedside in one of the hospitals of Dublin, and in the College by means of printed questions and orally in all the subjects of examination. Candidates may be examined in the subjects of the first part at the end of the second year of study, or on the completion of their medical studies. No one can be examined in the subjects of the first and second parts in the same month.

Candidates qualified as follows are required to undergo the *second part* of the professional examination *only*, viz.:—1. Graduates in Medicine of a university in the United Kingdom, or of any foreign university approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the curriculum above mentioned, have passed the previous professional examination or examinations of any of the licensing corporations in the United Kingdom.

#### THE LICENCE IN MIDWIFERY.

Candidates who are not licentiates in Medicine may be admitted to examination on the following qualifications:—1. The degree or licence in Medicine from any University or College of Physicians in the United Kingdom. 2. Testimonials as to character. 3. Certificates of having attended (a) a course of lectures on Midwifery in a school recognised by the College; (b) Practical Midwifery as in Section 6 of the regulations for the Licence in Medicine.

Candidates already qualified in Medicine or Surgery may apply for permission to be examined for the licence in Midwifery. The certificates required to be lodged are the same as those required from *qualified* candidates for the Licence to practise Medicine.

Examinations, by printed questions and orally, for the Licence in Midwifery are conducted on the Thursday following the first Friday of each month except August and September.

*Fees.*—Fee for the licence in Medicine, £15 15s. Fee for licences in Medicine and Midwifery, if taken out within an interval of a month, £16 16s. Fee for the licence in Midwifery, £3 3s. N.B.—The fee for the Licence in Medicine to graduates in Arts and Medicine of any university in the United Kingdom is £5 5s.

#### MEMBERSHIP.

The qualification of Member is conferred only on those who are already Licentiates of some standing; consequently it does not fall within the scope of our abstract of regulations.

(a) Candidates who are registered practitioners of five years' standing are exempted from the written portion of the examination.

#### FELLOWSHIP.

The election for Fellowship takes place twice a year, viz., on the first Friday in April and on St. Luke's Day (October 18). Candidates (who must be Members of the College of one year's standing) must be proposed and seconded three months previously. Fee £35, and £25 stamp-duty.

#### 8. ROYAL COLLEGE OF SURGEONS, IRELAND.

The following regulations apply to students who commenced their studies subsequently to May 1, 1882:—

No student can be admitted as a candidate to any examination for the Letters Testimonial unless he shall, before commencing his medical studies, have passed a Preliminary Examination recognised by the Medical Council, and have been registered as a student by that Council.

The Letters Testimonial of the College will not be granted to any candidate at an earlier period than forty-five months subsequent to registration as a medical student, nor to any one who has not attained the age of twenty-one years.

#### EXAMINATIONS.

Every candidate shall be required to pass a Preliminary Examination and four Professional Examinations.

The Preliminary Examinations are held quarterly, viz., on the third Wednesday in January, April, July, and October in each year.

#### PROFESSIONAL EXAMINATIONS.

The First, Second, and Third Professional Examinations shall be held in the July and October of each year. The examination of each year must be passed before a new session can be entered on.

#### First Professional Examination.

Candidates are required, before admission to the First Professional Examination, to produce evidence of having been engaged in study for at least nine months subsequent to registration.

The examination shall include the following subjects, viz.:—Physics, if not passed at the Preliminary Examination; the elements of Chemistry; Botany (elementary); Anatomy (human osteology); Practical Pharmacy (elementary). The examination lasts two days, and is written and oral.

#### Second Professional Examination.

Candidates are required, before admission to the Second Professional Examination, to produce evidence of having passed the First Professional Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months. Winter courses: Practical Anatomy, with demonstrations and dissections; Physiology; Surgery; Chemistry (unless attended in first year). Summer Courses, three months: Practical Chemistry; Practical Physiology; *Materia Medica*.

Candidates shall be examined in: Anatomy—bones, joints, muscles, and topographical anatomy of the viscera of the chest, abdomen, and pelvis. Histology; and the physiology of the circulatory, respiratory, and digestive systems. Surgery—the signs, terminations, and treatment of inflammation; wounds; hæmorrhage; burns and scalds; ulcers; bandaging. Chemistry. *Materia Medica*.

The examination lasts two days, and is oral and practical.

#### Third Professional Examination.

Candidates are required, before admission to the Third Professional Examination, to produce evidence of having passed the Second Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months as an extern pupil, or six months as a resident pupil. Winter courses: Demonstrations and dissections; Practical Anatomy (unless attended in the first year); Surgery; Medicine. Summer Course, three months: Medical Jurisprudence.

Candidates shall be examined in—Anatomy; Physiology; Surgery (not including Operative, Clinical, and Ophthalmic Surgery, which are reserved for the Final Professional Examination).

The examination lasts three days, and is written, oral, and practical.

#### Fourth and Final Professional Examination.

The Fourth Professional Examination shall be held in July and October, and in the following April.



Candidates are required, before admission to the Final Examination, to produce evidence of having passed the Third Professional Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months as extern pupil (or six months as resident pupil, unless a certificate to that effect has been accepted in the third year). Winter Courses: Dissections and demonstrations; Midwifery. Certificates will also be required of having attended a midwifery hospital or maternity for six months, and of having been present at thirty labours; Clinical Ophthalmology, three months; Operative Surgery; practical instruction in Vaccination.

Candidates shall be examined in—Surgery (Clinical, Ophthalmic, and Operative, with Surgical Anatomy); Medicine; Midwifery and Diseases of Women; Medical Jurisprudence.

The examination will last four days—one day written, one oral, one clinical, and the fourth practical (operative).

The fee for each of the four Professional Examinations is £5 5s.

The College also grants a diploma in Midwifery, for which the following are the regulations:—

*Qualifications of Candidates for the Diploma in Midwifery.*—Any Fellow or Licentiate of the College shall be admitted to an examination for the diploma in Midwifery upon laying before the Council the following documents:—*a.* A certificate showing that he has attended one course of lectures on Midwifery and Diseases of Women and Children, delivered by a professor or lecturer in some School of Medicine or Surgery recognised by the Council. *b.* A certificate showing that he has attended, during a period of six months, the practice of a lying-in hospital recognised by the Council; or the practice of a dispensary for lying-in women and children recognised by the Council and devoted to this branch of Surgery alone. *c.* A certificate showing that he has conducted thirty labour cases, at least.

*Fees to be paid by Candidates for the Diploma in Midwifery.*—The candidate pays £1 6s. for the Midwifery diploma, provided he takes it out within one month from the date of his letters testimonial; after that date the fee will be £2 2s.

### 9. THE APOTHECARIES' HALL OF IRELAND.

This body grants a licence to practise Medicine and Pharmacy on the following conditions:—

1. Of having passed an examination in Arts before one of the recognised public boards previously to entering on professional study.

2. Of having been registered in the Students' Medical Register.

3. Of being at least twenty-one years of age, and of good moral character.

4. Of pupilage to a qualified apothecary, or of having been otherwise engaged in practical pharmacy for a period of twelve months subsequent to having passed the examination in Arts.

5. Of having spent four years, or forty-five months, in professional study from the date of registration in the Students' Register.

6. Of having attended the following courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during one winter session; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Practical Chemistry (in a recognised laboratory), during three months; Materia Medica, during three months; Principles and Practice of Medicine and Therapeutics, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, during one winter session; Forensic Medicine, during one summer session; instruction in the practice of Vaccination.

7. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and clinical lectures on Medicine, during two winter and two summer sessions; also the practice of Surgery and clinical lectures on Surgery, during one winter and one summer session.

8. Of practical study, with care of patients, as apprentice pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or with a registered practitioner.

9. Of having performed the operation of vaccination successfully under a recognised public vaccinator.

The examination for the licence to practise is divided into two parts:—The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

The professional examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

## LONDON HOSPITALS AND MEDICAL SCHOOLS.

### ST. BARTHOLOMEW'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

*Consulting Physicians.*

Sir G. Burrows, Bart., D.C.L., F.R.S., Dr. Farre, Dr. Harris, Dr. Martin.

*Consulting Surgeons*—Sir J. Paget, Bart., D.C.L., F.R.S., Mr. Holden.

*Physicians.*

Dr. Andrew.  
Dr. Church.  
Dr. Gee.  
Dr. Duckworth.

*Assistant-Physicians.*

Dr. Hensley.  
Dr. Brunton, F.R.S.  
Dr. Legg.

*Physician-Accoucheur.*

Dr. Matthews Duncan.

*Assistant Physician-Accoucheur.*

Dr. Godson.

*Casualty Physicians*—Dr. Steavenson, Dr. Herringham, Dr. King.

*Dental Surgeon*—Mr. Coleman.

*Assistant Dental Surgeons*—Mr. Lyons, Mr. Ewbank.

*Administrator of Chloroform*—Mr. Mills.

*Surgeons.*

Mr. Savory, F.R.S.  
Mr. Thomas Smith.  
Mr. Willett.  
Mr. Langton.  
Mr. Baker.

*Assistant-Surgeons.*

Mr. Marsh.  
Mr. Butlin.  
Mr. Walsham.  
Mr. Cripps.  
Mr. Shuter.

*Ophthalmic Surgeons.*

Mr. Power.  
Mr. Vernon.

#### LECTURES.

Botany—Rev. George Henslow.

Chemistry and Practical Chemistry—Dr. Russell, F.R.S.

Clinical Medicine—Dr. Andrew, Dr. Church, Dr. Gee, Dr. Duckworth.

Clinical Surgery—Mr. Savory, Mr. Thomas Smith, Mr. Willett, Mr. Langton, Mr. Baker.

Comparative Anatomy—Dr. Moore.

Dental Anatomy and Surgery—Mr. Coleman.

Descriptive and Surgical Anatomy—Mr. Langton and Mr. Marsh.

Public Health and Hygiene—Dr. Thorne.

Forensic Medicine—Dr. Southey.

General Anatomy and Physiology, with Histology—Mr. Morrant Baker and Dr. Klein.

Materia Medica—Dr. Brunton.

Medicine—Dr. Andrew and Dr. Gee.

Mental Diseases—Dr. Clave Shaw.

Midwifery and the Diseases of Women and Children—Dr. Matthews Duncan.

Ophthalmic Medicine and Surgery—Mr. Power.

Pathological Anatomy—Dr. Legg.

Surgery—Mr. Savory.

#### DEMONSTRATIONS.

Aural Surgery—Mr. Cumberbatch.

Chemistry—Dr. Armstrong.

Diseases of the Eye—Mr. Vernon.

Diseases of the Larynx—Mr. Butlin.

Diseases of the Skin—Dr. Legg.

Mechanical and Natural Philosophy—Mr. Womack.

Orthopaedic Surgery—Mr. Walsham.

Morbid Anatomy—Dr. Norman Moore.

Practical Anatomy and Operative Surgery—Mr. Bruce Clarke, Mr. Edwards, and Mr. Lockwood.

Practical Physiology—Dr. V. Harris.

Practical Surgery—Mr. Butlin and Mr. Walsham.

*Medical Tutor*—Dr. S. West.

This Hospital comprises a service of 710 beds, of which 676 are in the Hospital in Smithfield, and 34 are for convalescent patients at Lauderdale House, Highgate.

#### SCHOLARSHIPS AND PRIZES.

Open Scholarships in Science, founded 1873; subjects of examination:—Physics, Chemistry, Botany, Physiology, and Zoology. These scholarships, of the value of £130 each, tenable for one year, will be competed for on September 26 and following days.

Preliminary Scientific Exhibition, founded 1873; subjects of examination—Physics, Chemistry, Botany, and Zoology. This exhibition, of the value of £50, is awarded in October.

Lawrence Scholarship and Gold Medal, of the value of £40, founded in 1873, by the family of the late Sir W. Lawrence.

Brackenbury Scholarship in Medicine, and Brackenbury Scholarship in Surgery, founded in 1873 by the will of the late Miss Hannah Brackenbury, who left £2000 for this purpose.

Senior Scholarship of the value of £50—Anatomy, Physiology, and Chemistry.

Junior Scholarships of the value of £50, £30, and £20 are awarded after an examination in the subjects of study of the first year at the end of the summer and winter sessions.

The Jeaffreson Exhibition, of the value of £50, is awarded at the commencement of each winter session, after open competition, on the same days as the Science Scholarships in Classics, Mathematics, and Modern Languages.

The Wix Prize is awarded for the best essay on the following subject:—"Willis."

Hichens Prize: subject of examination—Bishop Butler's Analogy.

Bentley Prizes (two), for the best report of Surgical and Medical Cases occurring in the wards of the Hospital during the previous year. It is expected that the reports will comprise the histories, progress, treatment, and results of not less than twelve cases, with observations thereupon.

Foster Prize: subject of examination—Practical Anatomy, senior.

Treasurer's Prize: subject of examination—Practical Anatomy, junior.

Kirkes Gold Medal: subject of examination—Clinical Medicine.

Harvey Prize: subject of examination—Practical Physiology.

#### FEES.

Whole fee for attendance on lectures and hospital practice £138 12s., payable by instalments—first winter £42, first summer £48 6s., second summer £48 6s.—or a single payment of £131 5s. Payment in either of these ways entitles to a perpetual ticket.



A College for resident students exists in connexion with the Hospital; Warden, Dr. Norman Moore, from whom students will obtain information respecting rooms in the College, or will be advised regarding residence out of the Hospital.

All communications to be addressed to the Warden of the College, St. Bartholomew's Hospital, E.C.

### CHARING-CROSS HOSPITAL.

#### MEDICAL AND SURGICAL STAFF.

*Consulting Physician*—Sir Joseph Fayrer, M.D., K.C.S.I., F.R.S., F.R.C.P.  
*Consulting Surgeons*—Mr. E. Canton, F.R.C.S., and Mr. F. Hird, F.R.C.S.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. A. J. Pollock.	Mr. R. Barwell.
Dr. T. H. Green.	Mr. E. Bellamy.
Dr. J. Mitchell Bruce.	Mr. J. Astley Bloxam.
<i>Assistant-Physicians.</i>	<i>Assistant-Surgeons.</i>
Dr. John Abercrombie.	Mr. J. Cantlie.
Dr. Montagu Lubbock.	Mr. J. H. Morgan.
Dr. F. Willcocks.	Mr. Stanley Boyd.
<i>Physician-Accoucheur.</i>	<i>Dental Surgeon.</i>
Dr. J. Watt Black.	Mr. John Fairbank.
<i>Assistant Physician-Accoucheur.</i>	<i>Chloroformists.</i>
Dr. Amand Routh.	Mr. Woodhouse Braine.
<i>Physician for Skin Diseases.</i>	Mr. G. H. Bailey.
Dr. A. Sangster.	<i>Surgical Registrar.</i>
<i>Medical Registrar.</i>	Mr. W. I. Roeckel.
Dr. Murray.	

#### LECTURERS AND TEACHERS.

Anatomy—Mr. Edward Bellamy.	Materia Medica and Therapeutics—
Minor Surgery—Mr. James Cantlie.	Dr. J. Mitchell Bruce.
Botany—Dr. F. Willcocks.	Mental Diseases—Dr. L. S. Forbes
Chemistry & Practical Chemistry—	Winslow.
Mr. C. W. Heaton; Demonstrator,	Practical Surgery—Mr. J. A. Bloxam
Mr. A. Vasey.	and Mr. J. H. Morgan.
Clinical Medicine—Dr. Pollock, Dr.	Practical Medicine—Dr. Montagu
Green, and Dr. Bruce.	Lubbock.
Clinical Surgery—Mr. Barwell, Mr.	Pathology and Morbid Anatomy—
Bellamy, and Mr. Bloxam.	Dr. T. Henry Green.
Ophthalmic Surgery—The Staff of	Physiology—Dr. Wolfenden.
the Royal Westminster Ophthal-	Physiology, Practical—Dr. Wolfen-
mic Hospital.	den; Demonstrator, Mr. H. B. Shaw.
Comparative Anatomy—Mr. J. G.	Principles and Practice of Medicine
Garson.	—Dr. A. J. Pollock.
Demonstrations and Dissections—	Principles and Practice of Mid-
Mr. James Cantlie.	wifery and Diseases of Women—
Dental Surgery—Mr. John Fairbank.	Dr. J. Watt Black.
Diseases of Children—Dr. Montagu	Principles and Practice of Surgery
Lubbock.	—Mr. R. Barwell.
Forensic Medicine—Dr. John Aber-	Skin Diseases—Dr. A. Sangster.
crombie.	Surgical Pathology—Mr. J. H.
Physics—Mr. H. B. Shaw.	Morgan.

#### SCHOLARSHIPS, MEDALS, AND PRIZES.

Two Entrance Scholarships, of the value of £30 and £20 respectively, tenable for one year, will be awarded annually in October, after a competitive examination in the following subjects:—Compulsory: English, Latin, French or German, Mathematics. Optional (only one of which may be selected): Chemistry, Mechanics, German or French. The subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding. Candidates must give notice of their intention to compete on or before Wednesday, September 20, 1882. The successful candidates will be required to enter for their medical education at Charing-cross Hospital.

The Llewellyn Scholarship of £25 is open to all matriculated students who have just completed their second academical year. The examination is held at the end of the second summer session, and includes the following subjects:—Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery.

The Golding Scholarship of £15 is open to all matriculated students who have just completed their first academical year. The examination is held at the end of the first summer session, and includes the following subjects:—Descriptive Anatomy, Physiology, Materia Medica, and Chemistry.

The Pereira Prize of £5 is open to all matriculated students who shall have completed their third academical year. It is awarded to the author of the best Clinical Reports of Cases in the Hospital during the preceding year, Medical and Surgical Cases being selected in alternate years.

Each candidate must produce a certificate of good conduct from the Dean of the Medical School, at the time of giving in his name as a competitor; and the names of the candidates for Scholarships are to be delivered to the Librarian one week before the first day of the examination.

The Governors' Clinical Gold Medal.—The competition for this medal is open to matriculated students who shall have completed, at the end of the current session, their attendance on the Medical and Surgical Practice of the Hospital. Candidates are examined on the subjects of Clinical Lectures delivered during the session, and on Medical and Surgical Cases in the wards of the Hospital.

Silver Medals.—Silver Medals are awarded in all the classes.

Bronze Medals.—Where two sessions' attendance on a course are required, a Bronze Medal is awarded in the junior class, in addition to the Silver one in the senior class.

Certificates of Honour are awarded to both senior and junior students who, not being the most proficient, have yet attained a marked degree of excellence.

#### FEES.

Total fees, £99 15s., payable by instalments (subject to an abatement of 8 per cent. if paid on joining), if entered for the full period of study—October (on joining), £30 9s., including matriculation fee; May (following), £21; October, £22 1s.;

May, £15 15s.; October, £10 10s. Dental Students: October (on joining), £22 2s., including matriculation fee; October (following), £20—total, £42 2s.

Students are admitted to the Medical and Surgical Practice for the full period required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries (including the clinical courses in both departments), on payment of £31 10s. Non-matriculated students are admitted on payment of the following fees:—Either Medical or Surgical Practice (including the clinical lectures): Three months, £6 6s.; six months, £10 10s.; twelve months, £15 15s.; full period, £21. Both Medical and Surgical Practice (including the clinical lectures): Three months, £10 10s.; six months, £15 15s.; twelve months, £21; full period, £31 10s. For a longer period, £5 5s. for each additional winter, and £3 3s. for each additional summer session.

Special classes for the Preliminary Scientific and first M.B. Examinations of the University of London are held during each winter and summer session.

The hours of lectures have been specially re-arranged to suit the convenience of Dental Students. Charing-cross Hospital is within three minutes' walk of the Dental Hospital of London.

For further particulars apply to the Dean, at the Hospital.

### ST. GEORGE'S HOSPITAL.

#### MEDICAL AND SURGICAL STAFF.

*Consulting Physicians*—Sir Henry A. Pitman, Dr. Ogle, Dr. Barclay.

#### *Consulting Surgeons.*

Mr. Caesar Hawkins, F.R.S., Sir Prescott G. Hewett, Bart., F.R.S., Mr. Pollock, Mr. H. Lee.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. Wadham.	Mr. Holmes.
Dr. Dickinson.	Mr. Rouse.
Dr. Whipham.	Mr. Pick.
Dr. Cavafy.	Mr. Haward.
<i>Assistant-Physicians.</i>	<i>Assistant-Surgeons.</i>
Dr. Ewart.	Mr. Bennett.
Dr. Isambard Owen.	Mr. Dent.

#### *Obstetric Physician*—Dr. Barnes.

*Assistant Obstetric Physician*—Dr. Champneys.

*Ophthalmic Surgeon*—Mr. Brudenell Carter.

*Assistant Ophthalmic Surgeon*—Mr. Frost.

*Aural Surgeon*—Mr. Dalby. *Dental Surgeon*—Mr. A. Winterbottom.

#### LECTURERS.—WINTER SESSION.

Chemistry & Physics—Mr. Donkin.	Ophthalmic Surgery—Mr. Brudenell Carter.
Clinical Lectures on Diseases of Women—Dr. Barnes.	Pathology—Dr. Whipham.
Clinical Medicine—Drs. Wadham and Cavafy.	Physiological Chemistry—Dr. Wm. Ewart.
Clinical Surgery—Messrs. Holmes and Haward.	Physiology and Minute Anatomy—Dr. Ewart.
Descriptive and Surgical Anatomy—Mr. Bennett.	Principles and Practice of Physic—Dr. Dickinson.
Histology—Mr. Compton.	Principles and Practice of Surgery—Messrs. Rouse and Pick.
Morbid Anatomy—Mr. D. M. Ross.	

#### SUMMER SESSION.

Aural Surgery—Mr. Dalby.	Medical Jurisprudence—Dr. Wm. Wadham.
Botany—Mr. G. Murray.	Midwifery and Diseases of Women and Children—Drs. Barnes and Champneys.
Clinical Demonstrations of Diseases of the Skin—Dr. Cavafy.	Practical Chemistry—Mr. Donkin.
Clinical Medicine—Dr. Whipham.	Practical Medicine—Dr. Whipham.
Clinical Surgery—Mr. Rouse.	Practical Surgery—Mr. Dent.
Comparative Anatomy—	Psychological Medicine—Dr. Blandford.
Dental Surgery—Mr. Winterbottom.	
Materia Medica—Dr. Owen.	

#### EXHIBITIONS AND PRIZES.

The William Brown Exhibition, of £100 per annum, tenable for two years, to be competed for by perpetual pupils who have recently obtained their diploma.

The William Brown Exhibition, of £40 per annum, tenable for three years, to be competed for by students during their fourth year of study.

The Brackenbury Prizes of £35 each in Medicine and Surgery, awarded annually after a competitive examination.

The Treasurer's Clinical Prize of £10 10s., the gift of the Duke of Westminster, to be competed for annually.

Sir Charles Clarke's Prize for Good Conduct: The interest of £200 Consols, to be awarded annually to the student of the Hospital, "who, by reason of his general good conduct during the preceding year, should be considered the most deserving."

The Thompson Medal: A silver medal to be awarded annually for the best clinical report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months.

Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twelve surgical cases which have occurred in the Hospital during the preceding twelve months.

Dr. Acland's Clinical Prize in Medicine will be awarded to the pupil of the Hospital who shall produce the best report of not more than twelve medical cases which have occurred in the Hospital during the preceding twelve months.

The Pollock Prize in Physiology (value £18) will be awarded to the



second year's student who shall exhibit the greatest proficiency in Physiology, Physiological Chemistry, and Histology. The examination on this prize will be held at the commencement of the summer session.

The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy.

General Proficiency Prizes: To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

## FEES.

Perpetual pupils pay £45 in their first year, £45 in their second year, and £40 in their third year of study, or £125 on entrance.

Gentlemen are admitted to the hospital practice and lectures required for the licensing bodies on payment of the following fees—viz., £45 for the first year of study, £45 for the second year of study, £20 for the third year of study, and £15 for each succeeding year. These are not perpetual pupils.

Dental pupils are admitted to the required courses on payment of £30 for their first year, and £25 for their second year, including Practical Chemistry.

Pupils may also enter to the hospital practice and lectures separately.

For further particulars apply to Dr. Wadham, Dean of the School.

## GUY'S HOSPITAL.

## MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Sir William Gull, Bart., Dr. G. Owen Rees.

Consulting Obstetric Physicians—Dr. Henry Oldham, Dr. J. Braxton Hicks.

Consulting Surgeons—Mr. E. Cock, Mr. Birkett.

Consulting Ophthalmic Surgeon—Mr. Bader.

## Physicians.

Dr. S. Wilks.  
Dr. F. W. Pavy.  
Dr. W. Moxon.  
Dr. C. Hilton Fagge.

## Assistant-Physicians.

Dr. P. H. Pye-Smith.  
Dr. Frederick Taylor.  
Dr. J. F. Goodhart.  
Dr. F. A. Mahomed.

## Obstetric Physician.

Dr. A. L. Galabin.

## Assistant Obstetric Physician.

Dr. Horrocks.

## Medical Registrar.

Dr. Carrington.

## Curator of the Museum.

Dr. Goodhart.

## Surgeons.

Mr. Thomas Bryant.  
Mr. Arthur Durham.  
Mr. H. G. Howse.  
Mr. N. Davies-Colley.

## Assistant-Surgeons.

Mr. R. Clement Lucas.  
Mr. C. H. Golding-Bird.  
Mr. W. H. A. Jacobson.  
Mr. C. J. Symonds.

## Ophthalmic Surgeons.

Mr. C. Higgins.  
Dr. W. A. Brailey, Asst  
Dental Surgeon.  
Mr. H. Moon.

## Aural Surgeon.

Mr. W. Laidlaw Purves.

## Surgical Registrar.

Mr. J. Poland.

Dean—Dr. F. Taylor.

## WINTER COURSES.—LECTURES.

Anatomy, Descriptive and Surgical— Mr. Howse and Mr. Davies-Colley.	Clinical Lectures on Midwifery and Diseases of Women—Dr. Galabin.
Chemistry—Dr. Stevenson and Mr. Groves.	Medicine—Dr. Pavy and Dr. Moxon.
Clinical Medicine—Dr. Wilks, Dr. Pavy, Dr. Moxon, and Dr. Fagge.	Physiology—Dr. Pye-Smith.
Clinical Surgery—Mr. Bryant, Mr. Durham, Mr. Howse, and Mr. Davies-Colley.	Surgery—Mr. Bryant and Mr. Arthur Durham.
	Experimental Physics—Prof. A. W. Reinold.

## DEMONSTRATIONS.

Cutaneous Diseases—Dr. Pye- Smith.	Practical Anatomy—Dr. White, Mr. Lane, and Mr. Price.
Morbid Anatomy—Dr. Goodhart and Dr. Mahomed.	Practical Physiology—Mr. Golding- Bird.
Practical Surgery—Mr. Lucas.	Surgical Classes—Mr. Jacobson.

## SUMMER COURSES.—LECTURES.

Botany—Mr. Bettany.	Dental Surgery—Mr. Moon.
Clinical Medicine—Dr. Pye-Smith, Dr. F. Taylor, Dr. Goodhart, and Dr. Mahomed.	Hygiene—Mr. George Turner
Clinical Surgery—Mr. Clement Lucas, Mr. Golding-Bird, Mr. Jacobson, and Mr. Symonds.	Materia Medica and Therapeutics— Dr. Taylor.
Clinical Lectures on Diseases of Women—Dr. A. L. Galabin.	Medical Jurisprudence—Dr. Steven- son.
Comparative Anatomy & Zoology— Dr. Brailey.	Mental Diseases—Dr. Savage.
	Midwifery and Diseases of Women —Dr. Galabin and Dr. Horrocks.
	Ophthalmic Surgery—Dr. Higgins.
	Pathology—Dr. Fagge.

## DEMONSTRATIONS.

Morbid Histology—Mr. Symonds.	Practical Chemistry—Mr. Groves.
Operative Surgery—Mr. Lucas.	Surgical Classes—Mr. Jacobson.

This Hospital contains 695 beds.

## OPEN SCHOLARSHIPS.

An open Scholarship of the value of £131 5s. in Classics, Mathematics, and Modern Languages.

An open Scholarship of the value of £131 5s. in Science.

## PRIZES.

For First Year's Students.—At the end of the summer session, in Anatomy, Physiology, Chemistry, Materia Medica, Botany, and Comparative Anatomy: Prizes, £50 and £25.

For Second Year's Students.—In the winter session, the Michael Harris Prize of £10 in Anatomy. Summer session, examination in Anatomy and Physiology, £25 and £10. The Sands-Cox Scholarship of £15 per annum, tenable for three years—subject, Physiology.

For Third Year's Students.—Medical and Surgical Anatomy, Operative and Minor Surgery, Midwifery, Therapeutics: First Prize £25, Second Prize £10.

For Fourth Year's Students.—Summer session, examination in Medicine, Surgery, Diseases of Women, and Medical Jurisprudence: Prizes, £25 and £10.

For Senior Students.—The Treasurer's Gold Medal for Clinical Medicine; the Treasurer's Gold Medal for Clinical Surgery; the Gurney Hoare Prize of £25 for Clinical Medicine and Surgery. The Beaney Scholarship of £31 10s. for Pathology. The Mackenzie Bacon Prize of £10 10s. for Ophthalmoscopy.

## FEES.

The fees for hospital practice and lectures are as follows:—A perpetual ticket may be obtained—(1.) By the payment of £131 5s. on entrance. (2.) By two payments of £66, at the commencement of the first winter session and the following summer session. (3.) By the payment of three annual instalments, at the commencement of the sessional year: First year £50; second year, £50; third year, £37 10s. Materials used in practical courses are charged extra.

For further information apply to the Dean, Dr. F. Taylor.

## KING'S COLLEGE HOSPITAL.

## MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. Arthur Farre, Dr. W. A. Guy,  
Dr. W. O. Priestley, Dr. A. B. Garrod.

## Physicians.

Dr. George Johnson.  
Dr. Lionel S. Beale.  
Dr. Alfred B. Duffin.  
Dr. William Playfair.  
Dr. J. Burney Yeo.  
Dr. T. C. Hayes.  
Dr. David Ferrier.  
Dr. E. B. Baxter.  
Dr. John Curnow.

## Surgeons.

Mr. John Wood.  
Mr. Joseph Lister.  
Mr. Henry Smith.  
Mr. H. Royes Bell.

## Assistant-Surgeons.

Mr. William Rose.  
Mr. W. W. Cheyne.

## Dental Surgeon.

Mr. S. Hamilton Cartwright.

Ophthalmic Surgeon—Mr. M. M. McHardy.

Aural Surgeon—Dr. Urban Pritchard.

Vaccinator—Mr. R. W. Dunn.

Pathological Registrar—Vacant.

Chloroformist—Mr. Charles Moss.

Sambrooke Registrars—Dr. N. Dalton and Mr. W. G. Evans.

## PROFESSORS.

Anatomy, Descriptive and Surgical —Dr. John Curnow; Mr. A. S. Kenny, Demonstrator.	Obstetric Medicine, and the Diseases of Women and Children—Dr. W. Playfair.
Botany—Mr. Robert Bentley.	Pathological Anatomy—Dr. A. B. Duffin.
Chemistry and Practical Chemistry —Mr. C. L. Bloxam; Mr. J. M. Thomson, Demonstrator; Mr. G. S. Johnson, Assist. Demonstrator.	Physiology and Practical Physi- ology—Dr. Gerald F. Yeo; Mr. J. W. Groves and Mr. W. T. Brooks, Demonstrators.
Clinical Medicine—Dr. G. Johnson.	Psychological Medicine—Dr. Edgar Sheppard.
Clinical Surgery—Mr. John Wood, Mr. Joseph Lister.	Principles and Practice of Medicine —Dr. L. S. Beale.
Comparative Anatomy—Mr. F. Jeffrey Bell.	Principles and Practice of Surgery —Mr. Henry Smith.
Dental Surgery—Mr. S. Hamilton Cartwright.	Surgery and Practical Surgery—Mr. Henry Smith; Mr. H. Royes Bell, Mr. W. Rose, and Mr. W. W. Cheyne, Demonstrators.
Forensic Medicine—Dr. D. Ferrier.	
Hygiene—Dr. Charles Kelly.	
Materia Medica and Therapeutics— Dr. E. B. Baxter.	
Ophthalmology—Mr. M. M. McHardy	

Dean of the Faculty—Professor Curnow.

Sub-Dean and Medical Tutor—Dr. N. I. C. Tirard.

## SCHOLARSHIPS, EXHIBITIONS, AND PRIZES.

Warneford Scholarships: "For the encouragement of the previous education of medical students," two scholarships of £75 each; and, "for the encouragement of resident medical students," one scholarship of £50.

Medical Scholarships: The following are offered every year to matriculated students:—1. One of £80, open to students of the third and fourth years; 2. One of £30, open to students of the second year; 3. Three of £20 each, open to students of the first year.

Daniell Scholarship: One of £40, open to every student who has worked in the laboratory for at least six months.

Sambrooke Registrars: Two of £50 each every year.

Science Exhibitions: Two annually; one of £100 and one of £50, for proficiency in Mathematics, Mechanics, Physics, Chemistry, Botany, and Zoology.

Sambrooke Exhibitions: Two annually, one of £60, and one of £40, for proficiency in English, Elementary Physics, Inorganic Chemistry, Botany, Zoology, Mathematics, and Languages.

Leathes Prizes: Bible and Prayer-book, annually, to two matriculated medical students.

Warneford Prizes: £40 is expended annually in the purchase of medals and books as prizes to two matriculated medical students.

Class Prizes are awarded annually of the value of £3 in each subject of study.

Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session, and two Surgical Clinical Prizes of the same value, are given annually for attendance at the Hospital.



**Todd Medical Clinical Prize:** This prize was founded in memory of the late Dr. Todd, and is awarded annually. It consists of a bronze medal and books to the value of £4 4s.

**Tanner Prize:** Of the value of £10 in each year, for proficiency in the study of Obstetric Medicine, and in Diseases of Women and Children.

**Carter Prize:** This prize is awarded annually for proficiency in Botany, and consists of a Gold Medal and Books, of the joint value of £15.

#### FEES.

The fees for perpetual attendance amount to £125 if paid in one sum on entrance; or £130 if paid in two instalments—viz., £70 on entrance and £60 at the commencement of the second winter session; or £135 if paid in three instalments—viz., £60 on entrance, £50 at the beginning of the second winter session, and £25 at the beginning of the third winter session.

For further information apply to Professor Curnow, Dean of the Medical Faculty.

### LONDON HOSPITAL AND MEDICAL COLLEGE.

#### MEDICAL AND SURGICAL STAFF.

*Consulting Physicians*—Dr. Herbert Davies and Dr. Ramskill.  
*Consulting Surgeons*—Mr. Curling, F.R.S., and Mr. Jonathan Hutchinson, F.R.S.

#### Physicians.

Sir Andrew Clark, Bart.	Dr. Fenwick.
Dr. Langdon Down.	Dr. Stephen Mackenzie.
Dr. Hughlings-Jackson, F.R.S.	Dr. A. E. Sansom.
Dr. Sutton.	Dr. F. Charlewood Turner.

#### Assistant-Physicians.

Dr. Gilbert Smith.	Dr. F. Warner.
Dr. C. H. Ralfe.	

#### Surgeons.

Mr. Couper.	Mr. Jas. Adams.
Mr. Rivington.	Mr. Waren Tay.
Mr. McCarthy.	

#### Assistant-Surgeons.

Mr. Reeves.	Mr. C. W. Mansell-Moullin.
Mr. Frederick Treves.	Mr. Hurry Fenwick.

*Obstetric Physician*—Dr. G. E. Herman.

*Surgeon-Dentist*—Mr. Ashley W. Barrett.

*Surgeons to the Ophthalmic Department*—Mr. James Adams and Mr. Waren Tay.

*Surgeons to the Aural Department*—Dr. Edward Woakes and Mr. T. Mark Hovell.

*Physician to the Skin Department*—Dr. Stephen Mackenzie.

#### LECTURES.

Anatomy and Pathology of the Teeth—Mr. Ashley W. Barrett.	Midwifery and Diseases of Women—Dr. G. E. Herman.
Botany—Dr. Warner.	Pathology and Demonstrations of Morbid Anatomy—Dr. H. G. Sutton.
Chemistry—Dr. C. Meymott Tidy.	Practical Anatomy—Mr. Frederick Treves.
Comparative Anatomy—Mr. C. W. Mansell-Moullin.	Practical Chemistry—
Descriptive and Surgical Anatomy—Mr. Walter Rivington.	Practical Histology, and Use of the Microscope—Mr. McCarthy.
Diseases of the Throat and Use of the Laryngoscope—Dr. Morell Mackenzie.	Physiology and General Anatomy—Mr. McCarthy.
Forensic Medicine—1. Toxicology, Dr. C. Meymott Tidy; 2. Medical Jurisprudence and Public Health—Dr. A. E. Sansom.	Ophthalmic Surgery—Mr. J. Adams.
Materia Medica and General Therapeutics—Dr. M. Prosser James.	Operative Surgery—Mr. J. Adams.
Medicine—Dr. Stephen Mackenzie.	Practical Surgery—Mr. Reeves.
	Surgery—Mr. J. Adams.
	Aural Surgery—Dr. Edwd. Woakes.

*Warden*—Mr. Munro Scott.

#### SCHOLARSHIPS AND PRIZES.

The following scholarships will be offered for competition during the ensuing winter and summer sessions:—

Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition at the end of September. The subjects will be Physics, Botany, Zoology, and Inorganic Chemistry.

The two Buxton Scholarships will be awarded in September to the students who distinguish themselves most in the subjects appointed by the General Council of Medical Education and Registration as the subjects of the preliminary examinations. 1. A Scholarship, value £30, to the student placed first in the examination. 2. A Scholarship, value £20, to the student placed second in the examination.

A Scholarship, value £20, will be awarded to the first-year student who shall pass the best examination in Human Anatomy and Physiology.

A Scholarship, value £25, will be awarded to the first-year or second-year student who shall pass at the end of the winter session the best examination in Anatomy, Physiology, and Chemistry.

A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine.

A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery.

A Hospital Scholarship, value £20, for proficiency and zeal in Obstetrics (awarded at the end of June, 1883).

The Letheby Prize, value £30, for proficiency in Chemistry.

The Duckworth-Nelson Prize, value £10, will be awarded by competition biennially, and will be open to all students. The subjects of examination will be Practical Medicine and Surgery.

Money Prizes, to the value of £60 per annum, are awarded by the House Committee to the most meritorious of the Dressers in the out-patient rooms who have passed their first College examination.

The Hospital contains nearly 800 beds, and the number of in-patients last year amounted to 7171, exclusive of 627 remaining under treatment at the commencement of the year.

Owing to the great size of the Hospital, the appointments are necessarily numerous and most valuable. They are all free to full students without additional fee.

The resident appointments consist of five House-Physicians, five House-Surgeons, and one Accoucheurship, each being tenable for six months, and renewable for two further periods of three months each. The holders of these appointments are provided with board and lodging free of expense. Two of the Dressers and two of the Maternity Assistants also reside in the Hospital.

Attached to the Pathological Department of the London Hospital is a laboratory, under the supervision of Dr. Sutton, which contains a large number of microscopic sections, carefully indexed and recorded.

#### FEES.

Perpetual fee for attendance on all the lectures with two years' Practical Anatomy, and for attendance on medical and surgical practice, qualifying for examination at most of the medical and surgical boards, £94 10s. if paid in one sum, or £105 in three instalments of £47 5s., £42, and £15 15s., at the commencement of the first, second, and third years respectively; composition fee for gentlemen entering at or before the beginning of their second winter session, their first year having been spent at a recognised medical school elsewhere, £73 10s. if paid in one sum, or £78 15s. in two instalments of £47 5s. and £31 10s.; perpetual fee for lectures alone, £52 10s.; perpetual fee for hospital practice alone, £52 10s. Extra fees: Practical Chemistry (for apparatus, etc.), £2 2s.; Practical Physiology do., £1 1s.; subscription to the library, £1 1s.

Students in Arts of Universities where residence is required, who have attended lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, and have obtained signatures for such attendance, fulfilling the requirements of the Examining Boards, may become pupils of the London Hospital, eligible for all hospital appointments, on payment of the fee of £52 10s. for practice at the Hospital. This payment does not give the right to signatures for courses of lectures at the Medical College.

Students who have passed the Preliminary Scientific Examination at the University of London, and have obtained signatures for lectures on Botany, Zoology, Chemistry, and Practical Chemistry, shall have the fees for the same, amounting to £18 18s., remitted on entering as full students at the London Hospital; and students who have attended the above courses elsewhere, and have obtained signatures for the same previous to their entrance at the London Hospital, shall also have these fees remitted, provided they pass the Preliminary Scientific Examination within eighteen months of their entry as full students.

For the convenience of students a Club has been established in the Hospital grounds, where meals can be obtained at moderate charges.

Communications should be addressed to Mr. Munro Scott, the Warden, at the London Hospital Medical College, Turner-street, Mile-end, London, E.

### ST. MARY'S HOSPITAL.

#### MEDICAL OFFICERS.

#### Consulting Medical Officers.

Dr. Chambers, Mr. S. A. Lane, Mr. Spencer Smith, Mr. J. R. Lane, Mr. White Cooper.

#### Physicians.

Dr. Handfield Jones, F.R.S.  
Dr. Sieveking.  
Dr. Broadbent.  
Dr. Cheadle.

#### Physicians in charge of Out-Patients.

Dr. Shepherd.  
Dr. David Lees.  
Dr. S. Phillips.

#### Surgeons.

Mr. Haynes Walton.  
Mr. Norton.  
Mr. Edmund Owen.

#### Surgeons in charge of Out-Patients.

Mr. Herbert W. Page.  
Mr. Pye.  
Mr. Pepper.

*Physician-Accoucheur*—Dr. Alfred Meadows.

*Physician-Accoucheur in Charge of Out-Patients*—Dr. Wiltshire.

*In charge of the Department for Diseases of the Skin*—Mr. Malcolm Morris.

*Ophthalmic Surgeon*—Mr. Anderson Critchett.

*Junior Ophthalmic Surgeon*—Mr. H. E. Juler.

*Surgeon in charge of the Department for Diseases of the Throat*—Mr. Norton.

*Aural Surgeon*—Mr. G. Field.

*Surgeon-Dentist*—Mr. Howard Hayward.

*Post-mortem Examinations*—Dr. Silcock.

*Instructor in Vaccination*—Mr. W. A. Sumner.



## LECTURES.—WINTER SESSION.

Anatomy—Mr. Owen.  
 Clinical Medicine—Dr. Handfield Jones, Dr. Sieveking, and Dr. Broadbent.  
 Clinical Surgery—Mr. Haynes Walton, Mr. Norton, and Mr. Owen.  
 Chemistry and Natural Philosophy—Dr. C. R. A. Wright.  
 Dental Surgery—Mr. Howard Hayward.  
 Medicine—Dr. Broadbent and Dr. Cheadle.  
 Pathology—Dr. Shepherd.  
 Physiology—Mr. Pye.  
 Practical Physiology—Dr. Nall.  
 Practical Surgery—Mr. Pepper.  
 Surgery—Mr. Norton and Mr. Page.

## SUMMER SESSION.

Aural Surgery—Mr. G. Field.  
 Botany—Rev. J. M. Crombie.  
 Comparative Anatomy—Mr. St. George Mivart, F.R.S.  
 Diseases of the Skin—Mr. Malcolm Morris.  
 Medical Jurisprudence—Dr. Randall.  
 Materia Medica—Dr. Lees.  
 Midwifery—Dr. Meadows and Dr. Wiltshire.  
 Ophthalmic Surgery—Mr. Anderson Critchett.  
 Practical Chemistry—Dr. C. R. A. Wright.

The Hospital contains 200 beds—88 medical, and 112 surgical. There are special departments for the Diseases of Women and Children, and for Diseases of the Eye, the Ear, the Skin, and the Throat.

## SCHOLARSHIPS, PRIZES, ETC.

Four Scholarships in Natural Science, each of the value of £50. These are awarded by open competitive examination at the commencement of the winter session.

Three Scholarships, of the value of £20, £25, and £30, will be given at the end of the first, second, and third years to the students of those years respectively. Candidates for these scholarships will be examined in all the class subjects studied by them during those years, as required by the several examining bodies.

A Demonstratorship in Pathological Anatomy, of the value of £15, and tenable for six months, will be given by competitive examination in Pathology and Morbid Anatomy, among those students who have completed their third winter session. The holder of the scholarship will assist the Pathologist in the discharge of his duties in the museum and dead-house. For this purpose he will be required to attend at least three hours daily between the hours of 12 and 5 p.m., and to employ that time either in assisting at the post-mortem examinations, or in preparing specimens for the museum, as directed by the Pathologist, and in making such specimens as may be required for the demonstrations by the Lecturer on Pathology.

A Clinical Assistant will be appointed from among the students possessing one qualification, with an honorarium of £20. His duties will be to assist both the Clinical Clerks and Dressers in the taking and recording of the cases. This appointment will be held for six months, and the holder will be eligible for re-election.

Two Prosectors of Anatomy and two Assistant-Demonstrators of Physiology are appointed annually, and receive a certificate and £5 each for satisfactory service in their respective departments.

There are five Resident Medical Officers, four of whom are appointed for twelve months, and one—the Obstetric Officer—for six months; all of whom live, free of every expense, in the Hospital. The money value of these appointments far exceeds that of as many scholarships of £50 each, whilst their professional advantages cannot be over-rated.

Examinations for prizes are held at the termination of each session in the various classes for students of the first, second, and third year.

## FEES.

The entrance fee may be paid in instalments by arrangement with the Dean of the School. Students who have kept the two years' course at the University of Cambridge are admitted as perpetual pupils on payment of £72 9s., and those who have kept a portion of the course elsewhere at a proportionate reduction. A fee of £1 1s. is required to be paid to the library and reading-room. Instruction in vaccination can be obtained; fee £1 1s.

Further information may be obtained from Mr. George Field, Dean of the School; or from the Medical Superintendent, at the Hospital.

## MIDDLESEX HOSPITAL.

## MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. Goodfellow, Dr. Henry Thompson, Dr. Greenhow.

Consulting Surgeons—Mr. Shaw, Mr. Nunn.

Consulting Dental Surgeons—Mr. Tomes, Mr. J. S. Turner.

## Physicians.

Dr. Cayley.  
 Dr. Sidney Coupland.  
 Dr. Douglas Powell.

## Surgeons.

Mr. Hulke.  
 Mr. Lawson.  
 Mr. Morris.

## Assistant-Physicians.

Dr. David Finlay.  
 Dr. J. K. Fowler.  
 Dr. C. Y. Biss.

## Assistant-Surgeons.

Mr. Andrew Clark.  
 Mr. A. Pearce Gould.

Obstetric Physician—Dr. Hall Davis.

Physician to Skin Department—Dr. Robert Liveing.

Assistant Obstetric Physician—Dr. Arthur Edis.

Ophthalmic Surgeon—Mr. William Lang.

Aural Surgeon—Mr. Arthur Hensman.

Dental Surgeon—Mr. Storer Bennett.

Assistant Dental Surgeon—Mr. Claude Rogers.

Curator of Museum and Pathologist—Dr. J. K. Fowler.

Registrars—Dr. J. J. Pringle and Mr. W. Roger Williams.

Resident Medical Officer—Mr. E. A. Fardon.

Chloroformist—Mr. G. Everitt Norton.

## LECTURES.—WINTER SESSION.

Chemistry—Mr. Wm. Foster.  
 Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.  
 Clinical Lectures on Diseases of Women and Children—Dr. J. Hall Davis.  
 Descriptive and Surgical Anatomy—Mr. Hensman.  
 Pathological Anatomy—Dr. Coupland.  
 Physiology and General Anatomy—Mr. B. Thompson Lowne.  
 Practical Demonstrations on Diseases of the Eye—Mr. Lang.  
 Practical Surgery—Mr. Andrew Clark.  
 Principles and Practice of Medicine—Dr. Cayley.  
 Principles and Practice of Surgery—Mr. Henry Morris.

## SUMMER SESSION.

Botany—Dr. Biss.  
 Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.  
 Clinical Lectures on Diseases of the Eye—Mr. Lang.  
 Comparative Anatomy and Zoology—Mr. J. B. Sutton.  
 Diseases of the Skin—Dr. Robert Liveing.  
 Materia Medica and Therapeutics—Dr. Thorowgood.  
 Midwifery and Diseases of Women and Children—Dr. Arthur W. Edis.  
 Medical Jurisprudence—Dr. D. W. Finlay.  
 Practical Demonstrations on Diseases of Women and Children—Dr. Arthur Edis.  
 Practical Demonstrations on Diseases of the Larynx and Ear—Mr. Hensman.  
 Practical Physiology and Histology—Mr. B. Thompson Lowne.  
 Practical Chemistry—Mr. Wm. Foster.  
 Psychological Medicine—Mr. Henry Case, Supt. Leavesden Asylum.  
 Public Health—Dr. D. W. Finlay.

This Hospital contains 310 beds, of which 190 are for surgical and 120 for medical cases. There is a special department for Cancer cases, affording accommodation for thirty-three in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of Uterine Disease and of Syphilis, and beds are set apart for patients from Diseases of the Eye. There are special out-patient departments for Diseases of the Skin, the Throat, the Eye and Ear.

## PRIZES AND SCHOLARSHIPS.

Two Entrance Scholarships of the annual value of £25 and £20, tenable for two years, are afforded for competition at the commencement of the winter session. (The successful candidates will be required to become general students of the school.)

An Entrance Science Scholarship of the value of £50 will be offered for competition at the commencement of the winter session 1883-84. (The successful candidate will be required to become a general student of the school.) Examination in Inorganic Chemistry, Botany and Vegetable Physiology, Zoology, and Experimental Physics. The schedule of these subjects will be that of the Preliminary Scientific Examination of the University of London, and there will be a practical examination in the first three.

Two Broderip Scholarships of the annual value of £30 and £20, tenable for two years, are annually awarded to those students who pass the most satisfactory examination at the bedside, and in the post-mortem room.

The Murray Scholarship is open to all general students, and will next be awarded in 1886. Examinations in Medicine, Surgery, and Midwifery.

The Governors' Prize of £21 is awarded annually to the student who at the end of his third winter session shall pass the best clinical examination and have been most diligent in the wards and post-mortem room.

The Lyell Medal, value about £5 5s., is awarded annually to second year's students.

An Exhibition in Anatomy and Physiology, value £10 10s., is given at the end of the first winter session to the student who shall pass the best practical and written examination.

## FEES.

The fee for attendance on the hospital practice and lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £94 10s. if paid in advance, or £40 on entrance, £40 at the beginning of the second winter session, £20 at the beginning of the third winter session, and £5 at the beginning of the fourth winter.

Dental students who intend to become Licentiates in Dental Surgery of the Royal College of Surgeons are admitted to attend the requisite courses of lectures and hospital practice on payment of a fee of £42, either in one payment or by instalments of £30 on entrance, and £15 at the beginning of the second winter session.

## ST. THOMAS'S HOSPITAL.

## MEDICAL AND SURGICAL STAFF.

Honorary Consulting Physicians—Dr. Barker, Sir J. Risdon Bennett.  
 Honorary Consulting Surgeons—Mr. F. Le Gros Clark, Mr. Simon, C.B.  
 Consulting Ophthalmic Surgeon—R. Liebreich, Esq.

## Physicians.

Dr. Bristowe.  
 Dr. Stone.  
 Dr. Ord.  
 Dr. Harley.

## Assistant Obstetric Physician.

Dr. Cory.

Assist.-Phys. for Dis. of Throat.  
 Dr. Semon.

## Resident Assistant-Physician.

Dr. Percy Smith.

## Surgeons.

Obstetric Physician.  
 Dr. Gervis.  
 Assistant-Physicians.  
 Dr. Payne.  
 Dr. Sharkey.  
 Dr. Gulliver.

Mr. Sydney Jones.  
 Mr. Croft.  
 Sir William Mac Cormac.  
 Mr. Mason.



*Ophthalmic Surgeon.*  
Mr. Nettleship.

*Assistant-Surg. ons.*  
Mr. A. O. MacKellar.  
Mr. H. H. Clutton.  
Mr. W. Anderson.  
Mr. B. Pitts.

*Anæsthetists*—Mr. S. Osborn and Mr. W. Tyrrell.

*Electrician*—Mr. Kilner, M.B.

*Demonstrators of Morbid Anatomy*—Dr. Sharkey and Dr. Hadden.

*Analytical Chemist of the Hospital*—Dr. Albert J. Bernays.

*Curator to the Museum*—Mr. C. Stewart.

*Apothecary*—Mr. Plowman.

*Medical Registrar*—Dr. Hadden.

*Surgical Registrar*—Mr. W. H. Battle.

*Secretary to the Medical School*—Mr. G. Rendle. *Dean*—Dr. Ord.

*Dental Surgeon.*  
Mr. W. G. Ranger.

*Assistant Dental Surgeon.*  
Mr. C. E. Truman.

*Resident Assistant-Surgeon.*  
Mr. G. H. Makins.

*Consulting Surgeons.*

Mr. Richard Quain.  
Mr. J. Eric Erichsen.  
Sir Henry Thompson.  
Mr. T. Wharton Jones.  
Mr. G. A. Ibbetson.

*Surgeons.*

Mr. Marshall.  
Mr. Berkeley Hill.  
Mr. Christopher Heath.  
Mr. Marcus Beck.

*Assistant Professors of Clinical Medicine*—Dr. W. R. Gowers and Dr. T. Barlow.

*Assistant Professor of Clinical Surgery*—Mr. A. Barker.

*Assistant Professor of Midwifery*—Dr. John Williams.

*Assistant-Surgeons.*

Mr. A. Barker.  
Mr. R. J. Godlee.

*Ophthalmic Surgeon.*  
Mr. J. F. Streatfeild.

*Assistant Ophthalmic Surgeon.*  
Mr. J. Tweedy.

*Dental Surgeon.*

Mr. S. J. Hutchinson.

#### LECTURES AND DEMONSTRATIONS.

*Medicine*—Dr. Bristowe and Dr. Ord.

*Clinical Medicine*—Dr. Bristowe, Dr. Stone, Dr. Ord, and Dr. Harley.

*Obstetric Clinical Medicine*—Dr. Gervis.

*Surgery*—Mr. Sydney Jones and Sir Wm. Mac Cormac.

*Clinical Surgery*—Mr. S. Jones, Mr. Croft, Sir Wm. Mac Cormac, and Mr. Mason. *Special Course*: Mr. Croft.

*Descriptive Anatomy*—Mr. R. Reid and Mr. Anderson.

*General Anatomy and Physiology*—Dr. John Harley and Mr. Stewart.

*Practical Physiology*—Dr. T. C. Charles.

*Ophthalmic Surgery*—Mr. Nettleship.

*Chemistry and Practical Chemistry*—Dr. Bernays.

*Midwifery and the Diseases of Women and Children*—Dr. Gervis.

*Physics and Natural Philosophy*—Dr. Stone.

*Materia Medica and Therapeutics*—Dr. Stone.

*Forensic Medicine*—Mr. Clutton and Dr. Cory.

*Pathological Anatomy*—Dr. Payne and Dr. Sharkey.

*Botany*—Mr. A. W. Bennett.

*Comparative Anatomy*—Mr. C. Stewart.

*Mental Diseases*—Dr. H. Rayner.

*State Medicine*—Dr. A. Carpenter.

#### TEACHERS OF PRACTICAL SUBJECTS AND DEMONSTRATORS.

*Practical Chemistry*—Dr. Bernays.

*Practical and Manipulative Surgery*—Mr. Mason and Mr. MacKellar.

*Demonstrations in Anatomy*—Mr. R. Reid, Mr. Anderson, Dr. Taylor, Mr. Ballance, and Assistants.

*Demonstrations in Microscopical Anatomy*—Mr. Rainey.

*Demonstrations in Morbid Anatomy*—Dr. Sharkey and Dr. Hadden.

*Demonstrations in Physiology*—Dr. T. D. Acland.

*Demonstrations in Practical Physiology*—Dr. T. D. Acland.

*Diseases of the Eye*—Mr. Nettleship.

*Diseases of the Skin*—Dr. Payne.

*Diseases of the Throat*—Dr. Semon.

*Diseases of the Ear*—Mr. Clutton.

*Diseases of the Teeth*—Mr. W. G. Ranger and Mr. C. E. Truman.

#### PRIZES AND APPOINTMENTS.

Entrance Scholarships of £100 and £60, awarded after an examination in Physics and Chemistry, with either Botany or Zoology.

*First Year's Prizes*.—Winter: The Wm. Tite Scholarship of £30; College Prizes—£20 and £10. Summer Prizes: £15 and £10.

*Second Year's Prizes*.—Winter: The Peacock Scholarship of £42, tenable for two years; College Prizes—£20 and £10. Summer Prizes: £15 and £10.

*Third Year's Prizes*.—Winter: £20, £15, and £10. Summer: £15 and £10. The Cheselden Medal, awarded after a special examination in Surgical Anatomy and Surgery. The Mead Medal, awarded after a special examination in Practical Medicine, Pathology, and Hygiene. The Solly Medal, biennially, with a prize of at least £10 10s., for a collection of surgical reports. The Treasurer's Gold Medal, for general proficiency during the entire course of study. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the third or fourth year's students for a physiological essay, to be illustrated by preparations.

The Dresserships and the Clinical and Obstetrical Clerkships are open to students who have passed the primary examinations at the Royal College of Surgeons, without extra charge.

#### FEES.

Gentlemen are informed that the admission fees to practice and to all the lectures may be paid in one of three ways, entitling to unlimited attendance—1st, £125, paid on entrance, entitle a student to unlimited attendance; 2nd, £135 in two payments, of £75 on entrance and £60 at beginning of next year; 3rd, by three instalments, of £65 the first year, £50 the second, and £30 the third. Special arrangements are made for students entering in second or subsequent years, and for Dental students; and separate entries may be made to any course of lectures, or to the hospital practice.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the skin, Diseases of the Teeth, and Mental Diseases.

For further information, apply to G. Rendle, Esq., M.R.C.S., Secretary to the Medical School, St. Thomas's Hospital, S.E.

### UNIVERSITY COLLEGE AND HOSPITAL.

#### MEDICAL AND SURGICAL STAFF.

##### Consulting Physicians,

Dr. Walter H. Walshe, Dr. J. Russell Reynolds, Sir William Jenner, Bart.

##### Physicians.

Dr. Wilson Fox.  
Dr. Sydney Ringer.  
Dr. H. Charlton Bastian.  
Dr. F. T. Roberts.  
Dr. W. R. Gowers.  
Dr. G. V. Poore.

##### Obstetric Physicians.

Dr. Graily Hewitt.  
Dr. John Williams.  
*Physician to the Skin Department.*  
Dr. Radcliffe Crocker.  
*Assistant-Physician.*  
Dr. T. Barlow.

*Consulting Surgeons.*

Mr. Richard Quain.  
Mr. J. Eric Erichsen.  
Sir Henry Thompson.  
Mr. T. Wharton Jones.  
Mr. G. A. Ibbetson.

*Surgeons.*

Mr. Marshall.  
Mr. Berkeley Hill.  
Mr. Christopher Heath.  
Mr. Marcus Beck.

*Assistant Professors of Clinical Medicine*—Dr. W. R. Gowers and Dr. T. Barlow.

*Assistant Professor of Clinical Surgery*—Mr. A. Barker.

*Assistant Professor of Midwifery*—Dr. John Williams.

*Assistant-Surgeons.*

Mr. A. Barker.  
Mr. R. J. Godlee.

*Ophthalmic Surgeon.*  
Mr. J. F. Streatfeild.

*Assistant Ophthalmic Surgeon.*  
Mr. J. Tweedy.

*Dental Surgeon.*

Mr. S. J. Hutchinson.

#### LECTURES.—WINTER SESSION.

*Chemistry*—Dr. Williamson.

*Clinical Medicine*—Dr. W. Fox, Dr. S. Ringer, Dr. Bastian, Dr. Roberts, Dr. Barlow, Dr. Gowers.

*Clinical Midwifery*—Dr. G. Hewitt, Dr. John Williams.

*Clinical Surgery*—Mr. Erichsen, Mr. Marshall, Mr. B. Hill, Sir H. Thompson, Mr. C. Heath, Mr. Streatfeild, Mr. Beck, Mr. Barker.

*Dental Surgery*—Mr. S. J. Hutchinson.

*Surgery*—Mr. Marshall. [son.]

*Skin Diseases*—Dr. R. Crocker.

*Descriptive Anatomy*—Mr. Thane;

*Demonstrations*—Mr. Rickman J. Godlee, Mr. David Collingwood.

*Medicine*—Dr. Sydney Ringer.

*Practical Surgery*—Mr. B. Hill, Mr. M. Beck, Mr. E. A. Barker.

*Physiology and General Anatomy*—Mr. Schäfer; *Demonstrator*, Dr. J. A. McWilliam.

*Zoology and Comparative Anatomy*—Mr. E. R. Lankester; *Demonstrators*, A. G. Bourne and W. B. S. Benham.

#### SUMMER SESSION.

*Botany*—Professor Oliver.

*Forensic Medicine*—Dr. G. V. Poore.

*Histology and Practical Physiology*—Mr. Schäfer.

*Hygiene*—Dr. Corfield.

*Materia Medica*—Dr. F. T. Roberts.

*Midwifery*—Dr. Graily Hewitt, Dr. John Williams.

*Operative Surgery*—Mr. M. Beck.

*Morbid Anatomy and Pathology*—Dr. H. C. Bastian.

*Natural Philosophy*—Prof. G. C. Foster.

*Ophthalmic Surgery*—Mr. John Tweedy.

*Practical Chemistry*—Dr. Williamson.

*Practical Pharmacy*—Mr. Gerrard.

#### SCHOLARSHIPS AND EXHIBITIONS.

The Atkinson-Morley Surgical Scholarship, £45 per annum, tenable for three years, is awarded every year for proficiency in the theory and practice of Surgery.

The Atchison Scholarship, value about £55, tenable for two years, for general proficiency.

The Sharpey Physiological Scholarship, of about £105 a year, for proficiency in Biological Science.

The Filliter Prize of £30, for proficiency in Pathological Anatomy.

Dr. Fellowes' Clinical Medals, one gold and two silver, each winter and summer session, and certificates of honour, for reports and observations on the Medical Cases of the Hospital.

The Liston Gold Medal, and certificates of honour, for reports and observations on the Surgical Cases in the Hospital.

The Alexander Bruce Gold Medal, for Pathology and Surgery.

The Cluff Memorial Prize, awarded every other year for proficiency in Anatomy, Physiology, and Chemistry.

The Erichsen Prize, awarded every year to the student of the class of Practical Surgery who shall most distinguish himself by manipulative skill.

Gold and Silver Medals, as well as certificates of honour, are awarded as class prizes.

The Jews' Commemoration Scholarship of £15 a year, tenable for two years, for general proficiency in the Faculty of Arts or of Science, for students of one year's standing; the Tuffnell Scholarship, £100, tenable for two years, for proficiency in Chemistry; and the Clothworkers' Exhibition for Chemistry and Physics, of £50 a year, tenable for two years, may be held by students who, after obtaining it, enter the Medical Faculty.

The Morris Bursary of £25, tenable for two years.

#### ENTRANCE EXHIBITIONS.

Three Entrance Exhibitions, of the respective value of £100, £60, and £40 per annum; subject—Science, as in London Preliminary Scientific Examination.

#### FEES.

For the lectures and hospital practice for the licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S., £131 5s. if paid in one sum; or first year, £63; second year, £52 10s; third year, £21.

Further information and detailed prospectuses may be obtained from the College, Gower-street, W.C.

### WESTMINSTER HOSPITAL.

#### HOSPITAL STAFF.

*Consulting Physicians*—Dr. Radcliffe, Dr. Fincham.

*Consulting Surgeons*—Mr. Barnard Holt, Mr. Holthouse.

##### Physicians.

Dr. Sturges.  
Dr. Allechin.  
Dr. H. Donkin.

##### Surgeons.

Mr. Cowell.  
Mr. Richard Davy.  
Mr. Macnamara.

##### Assistant-Physicians.

Dr. De Havilland Hall.  
Dr. Hughes Bennett.  
Dr. Murrell.

##### Assistant-Surgeons.

Mr. T. Cooke.  
Mr. T. Bond.  
Mr. Boyce Barrow.

*Obstetric Physician*—Dr. Potter.

*Assistant Obstetric Physician*—Dr. Grigg.

*Dental Surgeons*—Dr. Walker and Mr. Morton Smale.

*Aural Surgeon*—Mr. Keeno.



*Surgeon in charge of the Ophthalmic Department—Mr. Cowell.*  
*Surgeon in charge of the Orthopædic Department—Mr. R. Davy.*  
*Physician in charge of the Skin Department—Dr. T. C. Scott Fox.*  
*Physician in charge of the Throat Department—Dr. Hall.*

## LECTURES.

Anatomy—Mr. Black; Demonstrator, Dr. Sanderson.  
 Aural Surgery—Mr. Keene.  
 Botany—Mr. Worsley-Benison.  
 Chemistry—Dr. Dupré, F.R.S., Mr. O. Hehner.  
 Clinical Medicine—Dr. Sturges, Dr. Alchin, Dr. Donkin.  
 Clinical Surgery—Mr. Cowell, Mr. Davy, Mr. Macnamara.  
 Comparative Anatomy—Dr. Leslie Ogilvie.  
 Dental Surgery—Dr. Walker.  
 Diseases of the Skin—Dr. C. Fox.  
 Experimental Physics—Dr. George Ogilvie.  
 Forensic Medicine and Hygiene—Dr. De Havilland Hall, Dr. Dupré.  
 Materia Medica and Therapeutics—Dr. Murrell.  
 Medicine—Dr. Sturges, Dr. Alchin.  
 Midwifery and Diseases of Women—Dr. Potter.  
 Ophthalmic Surgery—Mr. Cowell.  
 Pathology and Morbid Anatomy—Dr. Alchin.  
 Physiology—Dr. Heneage Gibbes.  
 Practical Surgery—Mr. Richard Davy.  
 Practical Chemistry—Dr. Dupré.  
 Practical Physiology and Histology—Dr. Heneage Gibbes.  
 Psychological Medicine—Dr. Henry Sutherland.  
 Surgery—Mr. Cowell, Mr. Macnamara.

*Treasurer of the School—Mr. Cowell.*

*Dean of the School—Dr. De Havilland Hall. Sub-Dean—Dr. Heneage Gibbes.*

*Tutors—Dr. De Havilland Hall and Mr. Boyce Barrow.*

*Pathologist and Curator of the Museum—Dr. Hebb.*

In addition to the practice of the Hospital, which contains 201 beds, and has lately been enlarged and improved, the general students of this school are admitted to the practice of the Royal Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

## PRIZES.

Entrance Scholarships (next October): The Houldsworth, £40 a year for two years; and one other, value £40. Subjects—Latin, Mathematics, French or German, Chemistry, and Natural Philosophy. The Latin books the same as the June examination of the University of London Matriculation—Ovi, Metamorphoses, Book II.; and Epistolæ Ex Ponto, Book I.

There are also the Treasurer's Prize, an Exhibition, value £10 10s., for first year's men; the President's Prize, a Scholarship in Anatomy and Physiology, value £21, for second year's men; Prizes for Clinical Medicine and Surgery of £5 each; the Frederic Bird Medal and Prize, value £15; the Chadwick Prize for general proficiency, value £21; numerous dresserships and clerkships; the posts of Pathologist and Curator of the Museum, with £52 10s. a year; Medical and Surgical Registrar, each with £40 a year; of House-Physicians (two), House-Surgeon, Resident Obstetric Assistant, and Assistant House-Surgeon.

## FEES.

The entry fee to lectures and hospital practice required by the College of Physicians and Surgeons and the Society of Apothecaries may be paid in one sum of £100; in two payments of £52 10s. each, at the commencement of the first two years; or in five payments of £23 each, at the commencement of the first five sessions. The fees for Dental Students are £50 in one sum, or £32 10s. and £20 respectively at the commencement of each academic year.

Full particulars as to the preliminary scientific and tutorial classes, the courses of lectures and mode of instruction, will be found in the published Calendar, and any further information may be obtained by personal application to Dr. De Havilland Hall, the Dean of the School.

## PROVINCIAL MEDICAL SCHOOLS.

## OXFORD.

THERE is no School of Medicine at Oxford.

## CAMBRIDGE.

The following is a list of the classes and lectures in the Cambridge University School of Medicine:—

## WINTER COURSES.

Anatomy—Professor Macalister and the Demonstrator (Mr. Hill).  
 Superintendence of Dissections by the Professor of Anatomy and Demonstrators.  
 Chemistry—Professor Liveing.  
 Materia Medica—Professor Latham.  
 Medicine—Professor Paget.  
 Surgery—Professor Humphry.  
 Practical Surgery—Mr. Wherry.  
 Physics—Professor Lord Rayleigh.  
 Practical Chemistry—Professor Liveing and Mr. Hicks.  
 Physiology—Dr. Michael Foster.  
 Zoology and Comparative Anatomy—Professor Newton. Demonstrations by the Demonstrator.  
 Animal Morphology—Mr. Sedgwick.

## SUMMER COURSES.

Botany—Professor Babington.  
 Chemistry and Practical Chemistry—Prof. Liveing and Mr. Hicks.  
 Comparative Anatomy, Dissections by the Demonstrator.  
 Med. Jurisprudence—Dr. Anningson.  
 Pathology—Dr. Bradbury.  
 Practical Histology—Mr. Hill.  
 Midwifery and Practical Midwifery—Dr. Ingle.  
 Classes in Surgery—Dr. Humphry.  
 Practical Surgery—Mr. Wherry.  
 Human Osteology—Professor Macalister.  
 Practical Physiology—Dr. Michael Foster or his Assistant.

## ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

This Hospital contains 120 beds.

## MEDICAL AND SURGICAL STAFF.

## Physicians.

Dr. Paget.  
 Dr. Latham.  
 Dr. Bradbury.

## Surgeons.

Dr. Humphry.  
 Mr. Carver.  
 Mr. Wallis.  
 Mr. Wherry.

## Clinical Lectures by the Physicians and Surgeons.

Fees for attendance upon the practice (medical and surgical), £15 15s. for an unlimited period; £10 10s. for one year; £8 8s. for six months.

## DOWNING COLLEGE, CAMBRIDGE.

Every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of from £100 to £200, and are tenable for seven years. They are not vacated by marriage, and the Fellows are not required to reside. Foundation Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinction in Natural Science, tenable until the B.A. degree, and in cases of special merit for three years longer. Minor Scholarships of £40 to £70 per annum, tenable until their holders are of standing to compete for a Foundation Scholarship, are offered each year for competition before entrance, and one or more of these is awarded for proficiency in Natural Science.

## THE QUEEN'S COLLEGE, BIRMINGHAM.

## WINTER SESSION.

Chemistry—W. A. Tilden, D.Sc. Lond., F.R.S.  
 Demonstrations on Practical Anatomy—Mr. Bennett May and Mr. Henry Eales.  
 Descriptive and Surgical Anatomy—Professor Thomas.

Medicine—Professor B. Foster.  
 Pathology—Professor Rickards.  
 Physiology—Professor John Berry Haycraft, M.B., B.Sc. Edin.  
 Surgery—Professors Pemberton and Furneaux Jordan.

## SUMMER SESSION.

Botany—Professor W. Hillhouse, B.A. Cantab., F.L.S.  
 Dental Mechanics—Prof. C. Sims.  
 Dental Metallurgy—Professor W. A. Tilden, D.Sc. Lond., F.R.S.  
 Dental Anatomy and Physiology—Professor F. R. Batchelor.  
 Dental Surgery—Prof. Howkins.  
 Diseases of Women and Children—Professors Berry and R. C. Jordan.  
 Materia Medica—Professor Sawyer.

Forensic Medicine and Toxicology—Professors J. St. S. Wilder and Hill.  
 Midwifery—Professors Clay and Bassett.  
 Ophthalmic Surgery—Professor Solomon.  
 Practical Chemistry—Professor W. A. Tilden, D.Sc. Lond., F.R.S.  
 Operative Surgery—Professors Pemberton and Jordan.

*Honorary Curator of Museum—Dr. A. H. Carter.*  
*Medical Tutors—Dr. C. W. Suckling and Dr. Haslam.*

## SCHOLARSHIPS AND PRIZES.

The Sands Cox Prize.—A prize of the value of £20 is given annually in the Medical Department, in accordance with the Act of Parliament, "in commemoration of the exertions of Mr. William Sands Cox in founding and supporting the College. This prize is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. Every candidate is required to produce a certificate of good conduct from the Warden. The examination for this prize will be held in the third week in March.

The Ingleby Scholarships.—Two Ingleby Scholarships, founded in memory of the late Dr. Ingleby, formerly Professor of Midwifery in this School, will be awarded annually, after examination in Obstetric Medicine and Surgery and Diseases of Women and Children. These scholarships are open to students who have completed the first two years of their curriculum in this College.

Sydenham Scholarships.—Given by vote of Council.

Queen's Scholarships.—Given as result of examination.

Class Prizes.—Medals and certificates of honour are awarded annually in each class after examination.

## THE GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.

## GENERAL HOSPITAL STAFF.

*Consulting Physician—Dr. Bell Fletcher.*

*Consulting Surgeons—Mr. D. W. Crompton and Mr. A. Baker.*

## Physicians.

Dr. Russell.  
 Dr. Wade.  
 Dr. Foster.  
 Dr. Rickards.

## Surgeons.

Mr. Oliver Pemberton.  
 Mr. T. H. Bartleet.  
 Mr. Robert Jolly.  
 Mr. Chavasse.

## Assistant-Physicians.

Dr. R. Saundby.  
 Dr. Simon.

## Assistant-Surgeons.

Mr. W. G. Archer.  
 Mr. Haslam.

*Obstetric Physician—Dr. Malins*

*Resident Medical Officer—Dr. Bond.*

*Resident Surgeon and Surgical Tutor—Dr. Barling.*

*Registrar and Pathologist—Dr. Windle.*

## QUEEN'S HOSPITAL STAFF.

*Consulting Surgeon—Mr. S. Gamgee.*

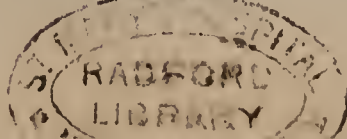
*Consulting Obstetric Surgeon—Mr. Berry.*

## Physicians.

Dr. Sawyer.  
 Dr. Carter.  
 Dr. Hunt.

## Surgeons.

Mr. Furneaux Jordan.  
 Mr. J. St. S. Wilders.  
 Mr. Bennett May.  
 Mr. Jordan Lloyd.





*Physician for Out-Patients.*—Dr. Suckling.  
*Casualty Surgeons.*—Mr. A. F. Hawkins and (vacant).  
*Obstetric Surgeon.*—Mr. John Clay.  
*Ophthalmic Surgeon.*—Mr. Priestley Smith.  
*Dental Surgeon.*—Mr. Charles Sims.  
*House-Physicians.*—Dr. Sanders and Dr. Pratt.  
*House-Surgeons.*—Mr. Clay and Mr. North.

## CLINICAL PRIZES.

The following prizes will be given annually:—Senior Medical Prizes, for third or fourth year students: First Prize, £5 5s. Senior Surgical Prizes: First Prize, £5 5s. Junior Medical Prizes, for second year students: First Prize, £3 3s. Junior Surgical Prizes: First Prize, £3 3s. Midwifery Prize, £4 4s.

The examination for the above-mentioned prizes will be conducted by the Clinical Board, and, together with various resident hospital appointments, will be open for competition to all students registered by the Clinical Board.

## BRISTOL SCHOOL OF MEDICINE.

## COURSES OF LECTURES.—WINTER SESSION.

Chemistry—Mr. Thomas Coomber.	Surgery—Mr. Nelson C. Dobson.
Descriptive and Surgical Anatomy—Mr. F. Richardson Cross.	Physiology—Dr. R. S. Smith.
Medicine—Dr. William H. Spencer and Dr. E. Markham Skerritt.	Practical Anatomy—Demonstrator: Mr. William H. Harsant.
	Hygiene—Mr. David Davies.

## SUMMER SESSION.

Botany—Mr. Adolph Leipner.	Operative Surgery and Surgical Pathology—Mr. W. Powell Keall.
Comparative Anatomy—Professor W. J. Sollas.	Pathology and Morbid Anatomy—Dr. William H. Spencer and Dr. E. Markham Skerritt.
Materia Medica and Therapeutics—Dr. John E. Shaw.	Practical Chemistry—Mr. Thomas Coomber.
Medical Jurisprudence—Dr. Reginald Eager and Dr. Alfred J. Harrison.	Practical Physiology and Histology—Mr. George F. Atchley. Demonstrator: Mr. G. Munro Smith.
Midwifery and Diseases of Women—Dr. Joseph G. Swayne and Dr. A. E. Aust-Lawrence.	Practical Surgery—Mr. Arthur W. Prichard.

## BRISTOL ROYAL INFIRMARY.

## MEDICAL AND SURGICAL STAFF.

*Honorary and Consulting Physicians.*—Dr. Alexander Fairbrother, Dr. Frederick Brittan, and Dr. Edward Long Fox.  
*Honorary and Consulting Surgeons.*—Mr. John Harrison and Mr. Augustin Prichard.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. William H. Spencer.	Dr. Henry Waldo.
Dr. R. Shingleton Smith.	Mr. John E. Shaw.
Mr. Edmund C. Board.	Mr. Arthur W. Prichard.
Mr. Christopher H. Dowson.	Mr. F. Richardson Cross.
Mr. J. Greig Smith.	
<i>Assistant-Surgeon.</i> —Mr. William H. Harsant.	
<i>Medical Superintendent.</i> —Mr. J. H. Lee Macintyre.	
<i>House-Surgeon.</i> —Mr. J. Paul Bush.	
<i>House-Physician.</i> —Mr. J. Fenton Evans.	

This Infirmary was founded in the year 1735, and is one of the largest provincial hospitals in England. It contains 264 beds.

## PRIZES.

Supple's Medical Prize, consisting of a gold medal of the value of £5 5s. and about £7 7s. in money, is given annually to the successful candidate in an examination held by the Physicians. The examination comprises reports of cases in the medical wards, and the preparation of morbid specimens illustrative of disease, accompanied, if possible, by microscopic and chemical illustrations, besides written replies to questions in Medicine.

Supple's Surgical Prize corresponds in value and character to the medical one described above. In this case the examination is conducted by the Surgeons, and comprises surgical subjects only.

Clark's Prize.—The interest of £500, bequeathed by the late Henry Clark, Esq., Consulting Surgeon to the Infirmary, will be given annually to the most successful student of the third year at the examination held at the Medical School, provided he has attended his hospital practice at the Bristol Royal Infirmary, and can produce certificates of good moral character.

Tibbitts' Memorial Prize.—A prize, founded by public subscription in memory of the late R. W. Tibbitts, Esq., Surgeon to the Infirmary, being the interest of £315, will be offered for competition annually to the advanced students for the greatest proficiency in Practical Surgery.

Crosby Leonard's Prize.—The interest of £300 will be awarded annually for the best reports of Surgical Cases.

Pathological Prize.—The Pathological Clerk at the expiration of his term of office will receive a prize of the value of £3 3s. if his duties have been performed to the satisfaction of the Faculty.

## FEES.

An entrance fee of £2 2s. to the Infirmary, and subscription of £1 1s. per annum to the Library. Medical or Surgical Practice, £7 7s. for six months, £12 12s. for one year, £21 perpetual; Medical and Surgical Practice together, in one payment, £21 for one year, £36 15s. perpetual. The above fees include Clinical Lectures. Clinical Clerkship, £5 5s. for six months, £8 8s. for one year; Dressership, £5 5s. for each six months; Obstetric Clerkship, £3 3s. for each three months. All fees are paid to the Secretary, at the Infirmary.

## BRISTOL GENERAL HOSPITAL. (a)

## MEDICAL AND SURGICAL STAFF.

*Honorary and Consulting Surgeons.*—Mr. Robert W. Coe, Mr. W. Michell Clarke, Dr. Henry Marshall, Mr. George F. Atchley.  
*Honorary and Consulting Physician-Accoucheur.*—Dr. Joseph G. Swayne.

<i>Physicians.</i>	<i>Surgeons.</i>
Dr. George F. Burder.	Mr. F. Poole Lansdown.
Dr. E. Markham Skerritt.	Mr. Nelson C. Dobson.
Dr. Alfred J. Harrison.	Mr. William P. Keall.
	Mr. Charles F. Pickering.

*Physician-Accoucheur.*  
 Dr. A. E. Aust-Lawrence.

*Physician's Assistant.*  
 Mr. C. N. Cornish.

*House-Surgeon.*  
 Mr. W. J. Penny.

*Assistant House-Surgeon.*  
 Mr. J. R. Woolby.

*Dentist.*—Mr. T. C. Parson.

## SCHOLARSHIPS AND PRIZES.

Martyn Memorial Entrance Scholarship.—This scholarship, of the value of £20, founded by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital, is awarded annually at the commencement of the winter session, after a competitive examination in subjects of general education.

Clarke Scholarship.—A Surgical Scholarship of £15, founded by H. M. Clarke, Esq., of London, is awarded annually, at the end of the winter session, after an examination in Surgery.

Sanders Scholarship.—A scholarship, founded by the late John Nash Sanders, Esq., and consisting of the interest of £500, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

Lady Habersfield Prize.—This prize, founded by the late Lady Habersfield, and consisting of the interest of £1000, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

The Martyn Memorial Scholarship and the Lady Habersfield Prize, when not awarded as above, are available for the remuneration of a Museum Curator, to be appointed from amongst the students after a competitive examination in subjects bearing upon the duties of the office.

The rules relating to the several scholarships may be had on application.

## FEES.

Medical or Surgical Practice, £6 for six months; £10 for one year; £20 perpetual. Extra fee for Clinical Clerk or Dresser, £5 5s. for six months. Extra fee for Obstetric Clerk, £3 3s. for three months. Library fee, £1 1s. per annum.

Further particulars respecting the Infirmary may be known on application to the Dean of the Infirmary Faculty, Mr. F. Richardson Cross; respecting the Hospital, on application to the Dean of the Hospital Faculty, Dr. Markham Skerritt. Information regarding the Medical School will be afforded by the Honorary Secretary of the School, E. Markham Skerritt, M.D., Medical School, University College, Tyndall's Park, Bristol.

## UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

The winter session will be opened on Monday, October 1, when the prizes will be presented by Joseph Cowen, Esq., M.P.

The College of Medicine has been considerably enlarged. Another Dissecting-room, sixty feet long, has been built, in addition to that lately constructed. The Library and Museum have been removed and remodelled, and larger rooms have been set apart for the students and teachers, and the Medical Theatre has been extended so as to accommodate 250 students. There are well-fitted laboratories for the study of Practical Chemistry, and special arrangements for students desirous of working at Practical Physiology. Operative Surgery is taught practically during the summer.

The Infirmary contains 230 beds. There are special wards set apart for Diseases of the Eye, for Lock Cases (male and female), and for Children.

Clinical lectures are delivered by the Physicians and Surgeons in rotation three times a week. Pathological demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital, where there is an outdoor practice of about 500 cases annually, available for students without fee. At the Infirmary there are special departments for the instruction of students in Ophthalmology, Gynaecology, Dermatology, Diseases of the Throat and Ear, and Bandaging and Minor Surgery.

## SCHOLARSHIPS, ETC.

A University of Durham Scholarship, of the value of £25 a year for four years, for proficiency in Arts, awarded annually to full students in their first year.

The Dickinson Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology.

The Tulloch Scholarship, value £20 annually, for Anatomy, Physiology, and Chemistry.

(a) No return.



The Charlton Scholarship, value £35 annually, with (in addition) a gold medal, for Medicine.

The Gibb Scholarship, value £25 annually, for Pathology.

The Goyder Memorial Scholarship, value £16 annually, at the Infirmary, for Clinical Medicine and Clinical Surgery.

At the end of each session a silver medal and certificates of honour are awarded in each of the regular classes.

An Assistant Curator of the Museum is appointed annually from among the senior students, and receives an honorarium of £12 for the year.

Four Assistant Demonstrators of Anatomy, receiving each an honorarium of £5, two Assistants to the Lecturer on Practical Physiology, and two or more Prosectors are appointed yearly.

Four times in the year, two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers (eight for the In-patients, and eight for the Out-patient Department), are nominated by the Medical Board, and, if approved, are appointed by the House Committee for three months.

Assistants in the Pathological Department, and two Assistants to the Dental Surgeon, are appointed in March and October.

#### FEES FOR HOSPITAL PRACTICE AND LECTURES.

1. A composition ticket for the complete course of lectures at the College may be obtained (1) by the payment of £63 on entrance; (2) by two payments each of £36 15s. at the commencement of the first and second winter sessions; (3) by the payment of three annual instalments, the first of £31 10s., the second of £26 5s., and the third of £21, at the commencement of each sessional year.

2. Fees for attendance on Hospital Practice:—Three months, £5 5s.; six months, £8 8s.; one year, £12 12s.; perpetual, £26 5s.; or by instalments at the commencement of the sessional year, viz.:—First year, £12 12s.; second year, £10 10s.; third year, £6 6s.; or by two instalments, viz.:—First year, £14 14s.; second year, £12 12s.

3. Single courses of lectures or tutorial classes, £5 5s.

Further particulars may be obtained from Dr. Luke Armstrong, Registrar, Clayton-street West; or Mr. Henry E. Armstrong, Secretary, 6, Wentworth-place, Newcastle-upon-Tyne.

#### STAFF OF THE COLLEGE.

Anatomy—Dr. W. P. Mears.  
Physiology—Dr. D. Drummond and Mr. G. E. Williamson.  
Medicine—Prof. G. H. Philipson.  
Surgery—Dr. G. Y. Heath and Dr. W. C. Arnison.  
Chemistry—Prof. Bedson, assisted by Mr. J. T. Dunn.  
Dissections—Dr. W. P. Mears.  
Public Health—Mr. H. E. Armstrong.  
Diseases of Women—Dr. C. Gibson.  
Midwifery—Dr. T. C. Nesham.

Medical Jurisprudence—Mr. Fredk. Page.  
Botany—Dr. J. Murphy.  
Therapeutics—Dr. T. W. Barron.  
Materia Medica—Dr. S. McBean.  
Pathology—Dr. C. J. Gibb and Dr. Drummond.  
Operative Surgery—Dr. L. Armstrong.  
Practical Physiology—Dr. T. Oliver.  
Psychology—Mr. R. H. B. Wickham.  
Medical Tutor—Dr. W. P. Mears.  
Tutor in Arts—Rev. J. Bulmer.

#### NEWCASTLE-UPON-TYNE INFIRMARY.

##### MEDICAL AND SURGICAL STAFF.

Physicians—Dr. Philipson, Dr. Drummond, and Dr. Oliver.  
Surgeons—Dr. Arnison, Dr. Armstrong, Dr. Hume, and Mr. Page.  
Assistant-Surgeons—Mr. G. E. Williamson and Mr. T. A. Dodd.

#### MEDICAL FACULTY OF UNIVERSITY COLLEGE, LIVERPOOL.

##### ROYAL INFIRMARY SCHOOL OF MEDICINE.

##### PROFESSORS AND LECTURERS.

Medicine—Dr. A. T. H. Waters.  
Surgery—Mr. Rushton Parker.  
Anatomy—Mr. W. Mitchell Banks.  
Physiology—Dr. Richard Caton.  
Pathology—Dr. A. Davidson.  
Ophthalmology—Mr. T. S. Walker.  
Chemistry—Dr. J. C. Brown.  
Experimental Physics—Dr. O. J. Lodge.  
Midwifery and Gynaecology—Dr. J. Wallace.

Clinical Medicine—Dr. A. T. H. Waters, Dr. T. R. Glynn, and Dr. A. Davidson.  
Clinical Surgery—Messrs. E. R. Bickersteth, Reginald Harrison, and W. Mitchell Banks.  
Diseases of Children—Dr. R. Gee.  
Materia Medica—Dr. W. Carter.  
Medical Jurisprudence—Dr. Ewing Whittle.  
Botany—Dr. George Shearer.

Comparative Anatomy—Dr. Herdman.

##### DEMONSTRATORS.

Histology and Practical Physiology—Mr. Mott.  
Practical Anatomy—Mr. Barron.  
Chemistry—Mr. Snape.  
Physics—Mr. Clark.

#### ROYAL INFIRMARY, LIVERPOOL.

Consulting Physician—Dr. Turnbull.

Consulting Surgeon—Mr. Hakes.

Physicians—Dr. Waters, Dr. Glynn, and Dr. Davidson.

Surgeons—Mr. Bickersteth, Mr. Harrison, and Mr. Banks.

Obstetric Physician—Dr. Wallace.

Assistant-Surgeon—Mr. Parker.

Pathologist—Dr. Rich.

Medical Tutor—Dr. Greves.

Surgical Tutor—Mr. Paul.

Dental Surgeon—Mr. Phillips.

Surgeons to the Lock Hospital—Dr. Bernard, Mr. F. W. Lowndes.

The Infirmary contains nearly 300 beds. There are special wards for the treatment of Uterine and other Diseases of Women.

The Medical and Surgical Tutors give practical instruction in case-taking and clinical observation generally every morning in the wards.

The Lock Hospital, adjoining the Infirmary, contains sixty beds.

#### SCHOLARSHIPS AND PRIZES.

Roger Lyon Jones Scholarships.—One Lyon Jones Scholarship (£21 for two years) will be awarded in October to the applicant who has taken highest place in Honours at the matriculation examination of the London University. In the absence of any candidate fulfilling these conditions, this Scholarship will be awarded by written examination in English, Classics, Mathematics, Modern Languages, and Physics, in September next. Successful candidates must become composition ticket-holders of the School. Another Lyon Jones Scholarship (£21 for two years) is awarded to second-year students for proficiency in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry.

The Derby Exhibition (£15 for one year) is awarded annually by competitive examination to third or fourth year students.

A Lyon Jones Gold Medal will be awarded to the senior student who passes the best examination in Medicine, Surgery, Pathology, and Midwifery, provided a sufficiently high standard of merit be attained.

Torr Medal.—A gold medal for Anatomy and Physiology, presented by Mr. John Torr, M.P., is awarded to the first student in the second year subjects.

Bligh Medal.—This gold medal, which is presented annually by Dr. John Bligh, Liverpool (also for the encouragement of the study of Anatomy and Physiology), is awarded to the first student in the first-year subjects.

Many other medals and prizes are also awarded.

#### FEES.

Composition Fee.—A payment of £63 on entrance or in two equal instalments (one-half on entrance, and the remainder within twelve months), entitles the student to attendance on all the lectures and demonstrations required for the Membership of the Royal College of Surgeons, the Licence of the College of Physicians and the Apothecaries' Society. Perpetual hospital fee, £42.

The new Physical Laboratories, under the charge of Professor Lodge, are now open; and also the new Zoological Laboratories, under the charge of Professor Herdman.

For prospectuses and all further information, apply to the Dean of the Medical Faculty, Dr. Caton, 18A, Abercromby-square, Liverpool.

#### LIVERPOOL NORTHERN HOSPITAL.

##### MEDICAL AND SURGICAL STAFF.

Physicians—Dr. E. H. Dickinson and Dr. R. Caton.  
Surgeons—Mr. Manifold, Mr. Puzey, and Dr. McF. Campbell.

House-Physician—Dr. Logan.

House-Surgeon—Dr. Orr.

Assistant House-Surgeon—Mr. Davy.

House-Surgeon's Assistant and Ambulance Surgeon—Mr. Horrocks.

The Hospital contains 146 beds (including special Children's Ward).

Fees for hospital practice and clinical lectures—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to Medical or Surgical Practice separately on payment of half the above fees. Practical Pharmacy, £2 2s. for three months.

Attendance on the practice of this Hospital qualifies for all the examining boards.

For further particulars, apply to the House-Surgeon.

#### LIVERPOOL ROYAL SOUTHERN HOSPITAL.

##### MEDICAL AND SURGICAL STAFF.

Physicians—Dr. Cameron, Dr. Carter, and Dr. Williams.  
Consulting Surgeons—Mr. Higginson and Mr. Nottingham.

Surgeons—Mr. Hamilton, Dr. Little, and Mr. Paul.

Dental Surgeon—Mr. R. E. Stewart.

Senior House-Surgeon—Dr. Davison.

Junior House-Surgeons—Mr. Sellers and Mr. Fitzpatrick.

There are 200 beds in this Hospital.

Clinical lectures given by the Physicians and Surgeons during the winter and summer sessions. Clinical clerkships and dresserships open to all students. Special wards for Accidents and Diseases of Children. Rooms for a limited number of resident students.

Fees for hospital practice and clinical lectures—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s.

The practice of the Hospital is recognised by all the examining bodies. Further information can be obtained from the Senior House-Surgeon.



## VICTORIA UNIVERSITY, MANCHESTER (MEDICAL DEPARTMENT).

## PROFESSORS AND LECTURERS.—WINTER SESSION.

Chemistry—Dr. Hy. E. Roscoe, F.R.S.  
Comparative Anatomy—Dr. A. Milnes Marshall.  
Descriptive and Practical Anatomy—Dr. Morrison Watson.  
General Pathology and Morbid Anatomy—Dr. Julius Dreschfeld.  
Hospital Instruction—Physicians and Surgeons to Royal Infirmary.  
Clinical Medicine—Dr. William Roberts, F.R.S.

## SUMMER SESSION.

Botany—Mr. W. C. Williamson, F.R.S.  
Diseases of Children—Dr. Henry Ashby.  
Embryology—Dr. A. Milnes Marshall.  
Hygiene and Public Health—Dr. Arthur Ransome.  
Materia Medica and Therapeutics, and Pharmacy—Dr. Leech; Assistant, Mr. W. Elborne.  
Medical Jurisprudence—Dr. C. J. Cullingworth.  
Mental Diseases—Mr. G. W. Mould.

*Demonstrator in Physiology*—Mr. W. H. Waters, M.A.  
*Demonstrators in Anatomy*—Mr. A. Fraser and Mr. J. Collier.  
*Registrar*—Mr. J. Holme Nicholson, M.A.  
*Dean of the Medical School*—Professor Gamgee, M.D., F.R.S.

## SCHOLARSHIPS AND PRIZES.

A Turner Scholarship of £25 for fourth year's students. Prizes in books or instruments varying from £3 3s. to £5 5s. will be offered for competition in the several classes.

Robert Platt Physiological Scholarships.—Two Scholarships of £50 each, tenable for two years, one of which is offered annually, are open to the competition of all persons (whether students of the College or not) whose age on January 1 preceding the examination shall not be under eighteen nor over twenty-five years.

Robert Platt Exhibitions.—Two Exhibitions of the value of £15 each are offered for the competition of first and second years' students in Physiology.

Dumville Surgical Prize, value £20: The prize will consist of books or surgical instruments at the option of the winner.

Dauntsey Medical Scholarship.—The Scholarship is of the value of about £100, and is tenable for one year.

Gilchrist Scholarships.—Three of £50 each, tenable for three years, one of which is annually awarded to the candidate who shall stand highest at the Matriculation Examination of the University of London in June, provided he pass in the honours division, and, failing such, two of £25 each will be given to the two candidates who stand highest in the first division.

## FEES.

A composition fee of £63, payable in two sums of £31 10s. each at the commencement of the first and second years of studentship, admits to the four years' course of study. Students desirous of repeating attendances on any class after the expiration of the four years' course, will be allowed to do so on paying for each class attended one-third of the fee payable by students who do not compound. A student, however, who desires to continue his study of Practical Anatomy beyond two sessions, will be required to pay at the rate of £2 2s. for a three months' or £3 3s. for a six months' course.

Extra fees are charged for attendance on the practical classes in Botany and in Comparative Anatomy, and for Operative Surgery. Tutorial classes are held in Anatomy and Physiology (fee £2 2s.), and in Chemistry, Zoology, and Botany (fee 10s. 6d. for each class).

A charge of £1 1s. is also made for the chemicals used in the class of Practical Chemistry.

## MANCHESTER ROYAL INFIRMARY.

## MEDICAL AND SURGICAL STAFF.

*Consulting Physicians*—Dr. R. F. Ainsworth, Dr. Frank Renaud, Dr. Henry Browne, and Dr. William Roberts.  
*Consulting Surgeons*—Mr. George Bowring and Mr. Edward Lund.

*Physicians.*

Dr. Henry Simpson.  
Dr. John E. Morgau.  
Dr. Daniel J. Leech.  
Dr. Julius Dreschfeld.

*Assistant-Physicians.*

Dr. James Ross.  
Dr. Grahame Steell.

*Obstetric Physician.*

Dr. John Thorburn.

*Surgeons.*

Mr. F. A. Heath.  
Mr. Walter Whitehead.  
Mr. Thomas Jones.  
Mr. James Hardie.

*Assistant-Surgeons.*

Mr. F. Armitage Southam.  
Mr. G. A. Wright.

*Ophthalmic Surgeon.*

Dr. Little.

*Dental Surgeon*—Mr. G. W. Smith.

*Resident Medical Officer*—Dr. David Grant.

*Resident Surgical Officer*—Mr. Bolton Pollard.

*Medical Supt. of the Royal Lunatic Hospital at Cheadle*—Mr. G. W. Mould.

*Medical and Surgical Registrar*—Mr. A. H. Young.  
*Pathological Registrar*—Dr. R. Maguire.  
*General Superintendent and Secretary*—Mr. W. L. Saunder.

## STUDENTS' FEES.

*Medical Practice*.—Three months, £4 4s.; six months, £8 8s.; twelve months, £12 12s.; full period required by the examining board, £18 18s.

*Surgical Practice*.—Three months, £6 6s.; six months, £9 9s.; twelve months, £18 18s.; full period required by the examining board, £31 10s.

*Composition Fee*.—The fees for the full period required by the examining boards of both medical and surgical practice may be paid by a composition fee of £42 on entrance, or by two instalments of £22 each at an interval of twelve months.

In addition to the practice of the Infirmary, the Monsall Fever Hospital and the Barnes Convalescent Home will also be open, under certain regulations, to students for the purposes of instruction.

## LEEDS SCHOOL OF MEDICINE.

## CLASSES AND LECTURES.

*Descriptive Anatomy*—Mr. John A. Nunneley, Mr. Edmund Robinson, and Mr. A. F. McGill.  
*Demonstrators of Anatomy*—Mr. A. W. M. Robson, Dr. J. B. Bellier, Mr. R. N. Hartley, Mr. W. H. Brown, Mr. F. P. Flood, and Mr. H. Rowe.  
*Physiology*—Mr. C. J. Wright and Dr. E. H. Jacob.  
*Practical Physiology and Histology*—(vacant).  
*Demonstrator of Physiology*—Dr. A. G. Barrs.  
*Medicine*—Dr. T. Clifford Allbutt and Dr. John Edwin Eddison.  
*Mental Diseases*—Dr. H. C. Major.  
*Surgery and Practical Surgery*—Mr. T. R. Jessop, and Mr. Edward Atkinson.  
*Clinical Medicine*—Dr. T. Clifford Allbutt, Dr. John Edwin Eddison, and Dr. Thomas Churton.

*Clinical Surgery*—Mr. C. G. Wheelhouse, Mr. T. P. Teale, Mr. T. R. Jessop, and Mr. Edward Atkinson.  
*Forensic Medicine*—Mr. Thomas Scattergood.  
*Midwifery*—Mr. W. N. Price, and Dr. James Braithwaite.  
*Materia Medica and Therapeutics*—Dr. Thomas Churton.  
*Pathology and Morbid Anatomy*—Mr. A. W. M. Robson.  
*Practical Morbid Histology*—Dr. Ernest H. Jacob.  
*Chemistry (at the Yorkshire College)*—Prof. T. E. Thorpe.  
*Practical Chemistry (at the Yorkshire College)*—Prof. T. E. Thorpe, assisted by Mr. C. H. Bothamley.  
*Botany (at the Yorkshire College)*—Prof. L. C. Miall.  
*Comparative Anatomy and Zoology (at the Philosophical Hall)*—Prof. L. C. Miall.

*Resident Curator*—(not yet appointed).

## LEEDS GENERAL INFIRMARY.

## MEDICAL AND SURGICAL STAFF.

*Consulting Physician*—Dr. Charles Chadwick.  
*Consulting Surgeon*—Mr. Samuel Hey.

*Physicians.*

Dr. T. Clifford Allbutt.  
Dr. John Edwin Eddison.  
Dr. T. Churton.

*Surgeons.*

Mr. C. G. Wheelhouse.  
Mr. T. Pridgin Teale.  
Mr. T. R. Jessop.  
Mr. Edward Atkinson.

*Assistant-Surgeons*—Mr. A. F. McGill and Mr. A. W. Mayo Robson.  
*Surgeons to the Ophthalmic and Aural Department*—Mr. John A. Nunneley and Mr. Hewetson.

*Dental Surgeon*—Mr. T. Carter.

## SCHOLARSHIPS AND PRIZES.

The Hardwick Clinical Prize.—Candidates for this prize must be in attendance on the lectures of the Leeds School of Medicine, and must have completed their first year's course there. They must be in registered attendance upon the medical practice of the Hospital, and have served the office of Clinical Clerk, or be holding that office at the time of competition. The prize is given annually for the best set of reports of medical cases in the Hospital during the winter session, subject to such regulations as may be laid down at the commencement of the session. Its value is £10 in money. Should the funds admit, a second prize may be given.

The Surgeons' Clinical Prizes.—Three prizes of the value of £8, £5, and £3 in money are offered annually by the Surgeons of the Hospital, subject to conditions similar to those relating to the Hardwick Prize.

The Thorp Prize in Forensic Medicine.—A sum of £20 (founded by a former Lecturer and present honorary member of the Council) is awarded at the close of each summer session, in one or more prizes, subject to such regulations as may be made from time to time, of which due notice will be given.

Competitive Class Examinations.—At the close of each session, competitive examinations are held, when silver and bronze medals, books, and certificates of honour are awarded according to merit; but in no case will a prize be awarded unless a reasonable standard of merit has been attained.

Prosectors.—Three prosectors are selected annually from the senior students to prepare the necessary dissections or lectures, and to assist the Demonstrators of Anatomy and Resident Curator.

## FEES.

The fees for school lectures and for hospital practice (which includes clinical lectures) are distinct, and are paid separately.

Students may enter for single courses of lectures, or pay a composition fee. All students, however, must pay an entrance fee of £1 1s., which confers the privilege of using the library and reading-room.

The composition fee is £52 10s., if paid in one sum on



entrance; or £27 6s. on entrance, and the same amount at the expiration of twelve months.

This composition fee, when the payment is completed, entitles a student to attend all the school lectures required for the examinations for the licence of the Royal College of Physicians of London, the membership of the Royal College of Surgeons of England, and the licence of the Society of Apothecaries. It also gives admission to one course of the lectures and demonstrations on Mental Diseases, but not to the lectures on Comparative Anatomy.

The fee of 10s. 6d. is charged to students attending the demonstrations of Morbid Histology, for the use of reagents and apparatus.

Fees for medical practice and clinical lectures:—One summer session, £6 6s.; one winter session, £7 7s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21; perpetual, £26 5s.

Fees for surgical practice and clinical lectures:—One summer session, £6 6s.; one winter session, £7 7s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21; perpetual, £26 5s.

Instruction in vaccination, as required by the College of Surgeons and by the Poor-law Board, is given by one of the Public Vaccinators—fee £1 1s. Students must attend on Tuesdays, at 3 p.m., for six weeks.

All further information may be obtained from the Honorary Secretary, Dr. Churton, 35, Park-square, Leeds.

### SHEFFIELD SCHOOL OF MEDICINE.

#### LECTURES.—WINTER SESSION.

Anatomy, Descriptive and Surgical—Mr. E. Skinner, Mr. Snell	Chemistry—At Firth College.
Demonstrations of Anatomy—The Tutor.	Clinical Medicine—The Physicians at the Infirmary and Public Hospital and Dispensary.
Physiology—Dr. Dyson, Dr. Sinclair White.	Clinical Surgery—The Surgeons at the Infirmary and Public Hospital and Dispensary.
Principles and Practice of Medicine—Dr. Bartolomé, Dr. Banham, Dr. Thomas.	Practical Surgery—The House-Surgeon at the Infirmary.
Principles and Practice of Surgery—Mr. Arthur Jackson.	Practical Physiology—Mr. R. J. Pye-Smith.
Tutor—Mr. H. B. Lee.	

#### SUMMER SESSION.

Midwifery and Diseases of Women—Dr. Hime.	Practical Chemistry—At Firth College.
Materia Medica and Therapeutics—Dr. Young.	Demonstrations of Pathology and Microscopy—The House-Surgeon of the Infirmary.
Medical Jurisprudence and Toxicology—Mr. J. W. Harrison.	Public Medicine—Dr. Drew.
Botany—Mr. Birks.	Ophthalmic Surgery—Mr. Snell.

### SHEFFIELD GENERAL INFIRMARY.

#### MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. F. Branson and Dr. Elam.	Surgeons.
Physicians.	Mr. Barber.
Dr. Bartolomé.	Mr. Favell.
Dr. Law.	Mr. A. Jackson.
Dr. Banham.	
Ophthalmic Surgeon—Mr. Snell.	
House-Surgeon—Mr. Charles Atkin.	
Assistant House-Surgeon—Vacant.	

The Infirmary contains 180 beds for in-patients.

### SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

Consulting Physicians—Dr. Law and (vacant).	
Consulting-Surgeons—Dr. Hunter and Mr. Arthur Jackson.	
Physicians.	Surgeons.
Dr. Dyson.	Dr. Keeling.
Dr. W. R. Thomas.	Mr. Thorpe.
Vacant.	Mr. Pye-Smith.
House-Surgeon—Dr. Sinclair White.	
Assistant House-Surgeons—Mr. Jackson and (vacant).	

This Hospital contains 110 beds. Recognised by the Royal College of Surgeons.

### JESSOP HOSPITAL FOR DISEASES OF WOMEN.

#### CONSULTING MEDICAL OFFICERS.

Dr. Aveling, Dr. E. Jackson, Dr. Hime.

#### MEDICAL OFFICERS.

Dr. Keeling, Mr. Woolhouse, Mr. R. Favell, Mr. Laver.

#### FEES.

Physiology, first course, £3 3s.; second course, £2 2s. Anatomy (including Demonstrations), first course £4 4s.; second course, £2 2s. Practice of Medicine, first course, £4 4s.; second course, £2 2s. Practice of Surgery, first course, £4 4s. Chemistry, first course, £4 4s. Midwifery and Diseases of Women, first course, £3 3s. Materia Medica, first course, £3 3s. Medical Jurisprudence, first course, £3 3s. Botany, first course,

£3 3s. Practical Chemistry, first course, £3 3s. Practical Physiology, £3 3s. Practical Surgery, £3 3s. Tutor's fee, £2 2s.

Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £45.

One fee admits to the practice of the Infirmary and of the Public Hospital and Dispensary—for the summer session, Medicine and Surgery £3s 3s. each; for the winter session, £6 6s.

All further information may be obtained on application to the Hon. Secretary, Arthur Jackson, Wilkinson-street, Sheffield.

## SCHOOLS AND HOSPITALS IN SCOTLAND.

### UNIVERSITY OF EDINBURGH.—FACULTY OF MEDICINE.

SESSION 1883-84.

Principal—Sir Alexander Grant, Bart., LL.D.

WINTER SESSION.

The session will be opened on Tuesday, October 23, 1883.

*Anatomy—Prof. Turner.	*Institutes of Medicine or Physiology—Prof. Rutherford.
*Anatomical Demonstrations—Prof. Turner.	*Materia Medica—Prof. T. R. Fraser.
*Chemistry—Prof. Crum Brown.	*Midwifery and Diseases of Women and Children—Prof. Simpson.
Clinical Medicine—Profs. MacLagan, Grainger Stewart, T. R. Fraser, and Greenfield (Prof. Simpson on Diseases of Women.)	Practical Natural History—Prof. Ewart.
Clinical Surgery—Prof. Annandale.	*Practice of Physic—Prof. Grainger Stewart.
*Genl. Pathology—Prof. Greenfield.	*Surgery—Prof. Chiene.

#### WINTER AND SUMMER SESSION.

*Anatomical Demonstrations—Prof. Turner.	*Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology—Prof. Rutherford.
*Bandaging and Surgical Appliances—Prof. Chiene.	*Practical Anatomy—Prof. Turner.
*Operative Surgery—Prof. Chiene.	*Practical Chemistry—Prof. Crum Brown.
*Obstetrical and Gynaecological Operations—Prof. Simpson.	

\* In University New Buildings.

#### SUMMER SESSION.

Practical Instruction in Mental Diseases at an Asylum—Dr. Clouston, Lecturer.	Vegetable Histology—Prof. Dickson.
Practical Natural History—Prof. Ewart.	Tutorial Class of Clinical Medicine in the Wards of the Royal Infirmary by the Clinical Tutor, Dr. Jas. Murdoch Brown.
Practical Morbid Anatomy and Pathology—Prof. Greenfield.	Diseases of the Eye—D. Argyll Robertson, M.D.
Practical Botany—Prof. Dickson.	

During the summer session lectures will be given on the following subjects:—

Anatomical Demonstrations—Prof. Turner.	Clinical Surgery—Prof. C. Annandale.
Botany—Prof. Dickson.	Mental Diseases, with Practical Instruction at Morningside Asylum—Dr. Clouston, Lecturer.
Chemistry—Prof. Crum Brown.	Medical Jurisprudence—Prof. MacLagan.
Clinical Medicine—Profs. MacLagan, Grainger Stewart, T. R. Fraser, and Greenfield. (Prof. Simpson on Diseases of Women.)	Natural History—Prof. Ewart.
	Obstetrical and Gynaecological Operations—Prof. Simpson.

Information relative to matriculation and the curricula of study for degrees, examinations, etc., will be found in the University Calendar, and may be obtained on application to the Secretary at the College.

During the summer session the following means are afforded for practical instruction:—

The *Dissecting Rooms* are open daily, under the Superintendence of the Professor, assisted by Arthur Thomson, M.B., W. Bannerman, M.B., C.M., and other assistants.

The *Royal Edinburgh Asylum* is open to members of the class of Medical Psychology exclusively for practical instruction in Mental Diseases by the Physician-Superintendent, Dr. Clouston.

*Chemical Laboratories.*—The laboratory for instruction in Analytical Chemistry and for chemical investigation, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc., John Gibson, Ph.D., and Leonard Dobbin, Ph.D., is open from ten to four. The Laboratory for Instruction in Practical Chemistry, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc.

The *Physiological Laboratory* is open daily for physiological investigation, under the superintendence of the Professor, assisted by John Lockhart Gibson, M.B.

The *Physical Laboratory* is open daily from ten to three, under the superintendence of Professor Tait.

The *Medical Jurisprudence Laboratory* is also open daily from ten to three, under the superintendence of the Professor, assisted by James Allan Gray, M.D.



The practice of Obstetrical and Gynæcological Operations is carried out in the Obstetrical Museum, under the superintendence of the Professor, assisted by A. H. Barbour, M.A., M.B., C.M.

The *Natural History Laboratory* is open daily, under the superintendence of Professor Ewart, assisted by J. T. Cunningham, B.A.

The *Natural History Museum* in the Museum of Science and Art, Chambers-street, is accessible to the students attending the Natural History Class.

The *Royal Botanic Garden, Herbarium, and Museum* are open daily.

#### MEDICAL FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, ETC.

##### *Fellowships.*

The Falconer Memorial Fellowship, value £100, tenable for two years. It is for the encouragement of the study of Palæontology and Geology, and is open to graduates in Science or Medicine of the University of not more than three years' standing.

The Syme Surgical Fellowship, value about £100, tenable for two years, open to competition among Bachelors of Medicine of not more than three years' standing, who shall present the best thesis on a surgical subject, giving evidence of original research.

The Leckie-Mactier Fellowship, consisting of the free annual proceeds of £2000, open to competition to Bachelors of Medicine of not more than three years' standing. The Fellowship to be tenable for three years, and the next award will be in November, 1882. The examination will comprise written reports and commentaries on three medical cases, three surgical cases, and one gynæcological case in the University wards in the Royal Infirmary; a written examination in Midwifery, Medical Jurisprudence, and Public Health; and an oral examination in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health.

##### *Scholarships.*

The Sibbald Scholarship, value about £40, tenable for three years.

A Hope Prize Scholarship, value about £30, will be awarded in March, 1884, to the most distinguished junior student in the chemical laboratory during the winter session.

The Thomson Scholarship, of the value of £40 yearly, tenable for four years, will be awarded in October, 1886; the subjects of examination Botany, Zoology, and Elementary Mechanics. Candidates to be matriculated students about to commence their first winter session in the Medical Faculty; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh.

Vans Dunlop Scholarships: Six scholarships, of the annual value of £100, tenable for four years—one to be awarded in March, 1884, to the candidate who, at the preliminary examination in March or the preceding October, shall have obtained the highest total number of marks required to enable him to appear for a professional examination; one in July, 1884, to the candidate who obtains the highest marks in Botany, Zoology, Chemistry, and Anatomy; one in March, 1884, for the highest marks in Physiology and Surgery; the other three to be awarded to the students who, at the end of the third winter session, shall obtain the highest number of marks in an examination, specially conducted for the purpose, on Anatomy, Physiology, Materia Medica, and Pathology—one scholarship to be awarded in April, 1883, another in April, 1884, the third in April, 1885, and so on in each successive year.

The Vans Dunlop Scholarships in Chemistry and Chemical Pharmacy, and in Natural History, including Botany and Geology.—These Scholarships are of the value of about £100, and are tenable for three years.

The Coldstream Memorial Medical Missionary Scholarship, consisting of the free annual proceeds of at least £400, is open to students of Medicine who intend to prosecute their studies in the University of Edinburgh, and who propose to devote their lives to the calling of a Medical Missionary. The Scholarship is tenable for four years, and the next award may be made in October, 1883.

The Buchanan Scholarship, consisting of the annual proceeds of £1000, will be awarded yearly, on the day of medical graduation, for proficiency in Midwifery and Gynæcology. The award will be based upon the results of competitive examinations in the class of Midwifery and Diseases of Women and Children, upon the character of the records kept of cases treated in the gynæcological section of the class of Clinical Medicine, and upon the appearance made by the candidate at the final graduation examination.

The Murchison Memorial Scholarship, tenable for one year, and consisting of the annual proceeds of about £1000, will be awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates to be registered medical students in attendance for not less than four nor more than six years at hospitals and classes in London and Edinburgh, recognised by the College of Physicians of London, or the University of Edinburgh. The competition will take place in London in April, 1884, and the next will take place in Edinburgh in April, 1885.

The James Scott Scholarship in Midwifery, consisting of the annual proceeds of £1000. The Scholarship is held for one year, but may, in special circumstances, be continued for another year. The next award will be made in August, 1884.

The Robert Mackay Smith Scholarships in Natural Philosophy and Chemistry, each consisting of one-half of the annual proceeds of £2500, are open to students who have attended at least one session in the class of Natural Philosophy or in the class of Chemistry in this University, and are tenable for two years, during one of which the successful candidates shall be bound to attend in this University in the department of Natural Philosophy or Chemistry. They cannot be held along with any other scholarship, fellowship, or bursary, in any Scottish university. The next competition in this University will take place at the end of the winter session, 1886-87.

##### *Bursaries.*

The Abercrombie Bursary of £20, tenable for four years, is open to students who have been brought up in Heriot's Hospital during their medical curriculum.

The Sibbald Bursaries are open to the sons of duly registered medical men practising, or who may have practised in Scotland, and to the sons of parents who are, or who may have been, householders in Edinburgh.

They are of the value of £30 each, tenable for four years, and available for the Faculty either of Arts, Law, Medicine, or Divinity.

Eight Thomson Bursaries, value £25 each, tenable for four years; one to be competed for each March and October, at the preliminary examinations required from candidates for graduation in Medicine. Candidates shall be those about to commence their medical curriculum, who shall attend the said preliminary examination, and who shall pass in a sufficient number of subjects to enable them to appear for a professional examination; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh. Information as to the Thomson Bursaries and Scholarship may be got from Messrs. Traquair, Dickson, and MacLaren, W.S., 11, Hill-street, Edinburgh.

Four Grierson Bursaries of £20 a year.

One Tyndall-Bruce Bursary of £25, tenable for one year, to be competed for by students who have reached the end of their third winter session—subjects of examination, to be Materia Medica and Pathology. Competitors for the above bursaries must have studied the subjects of examination at the University of Edinburgh; and these are not to be held along with any other bursary or fellowship.

Two Dr. John Aitken Carlyle's Medical Bursaries, of the value of £25 each, tenable for one year, to be awarded at the end of each winter session—one to a first year's student for proficiency shown in the ordinary class examinations in Anatomy and Chemistry; one to a second year's student for proficiency shown in the ordinary class examinations in Anatomy and Physiology.

Two Mackenzie Bursaries, consisting of the proceeds of £1000, to be awarded annually—one to the student in the junior class of Practical Anatomy, and one to the student in the senior class of Practical Anatomy, who shall respectively display the greatest industry and skill in their Practical Anatomy work during the winter session.

##### *Prizes.*

The Ettles Medical Prize is awarded annually to the graduate in Medicine whom the Medical Faculty may consider the most distinguished of the year. Value about £40. The Beany Prize will be awarded annually to the candidate for the degrees of M.B. and C.M. who, after having attended within the University, courses of Anatomy, Surgery, and Clinical Surgery, qualifying for graduation, shall obtain the highest number of marks in those subjects during his examination for these degrees. Value about £40.

The Hope Chemistry Prize, open to all students of the University of not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the Chemical Laboratory of the University. Value £100.

The Neil Arnott Prize, of about £40, is awarded to the candidate who shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. Candidates must have been medical students of this University during either a summer or a winter session, and the successful candidate must continue a medical student of this University during the winter session. No student can appear for examination after the completion of his third *annus medicus*; no candidate shall be allowed to offer himself more than once.

The Ellis Prize for the best essay "An Original Research in any department of the subject of Animal Heat," is open to students or graduates of five years' standing. Value, proceeds of the sum of £500 accumulated for three years. The next award may be in 1885.

The Goodsir Memorial Prize of £60 is awarded triennially for the best essay containing results of original investigations in Anatomy or in Experimental Physiology. Next award in August, 1884.

The Wightman Prize is awarded to the student of the class of Clinical Medicine who shall write the best report and commentary on cases treated in the University clinical wards during the academic year.

The Cameron Prize, consisting of the free income of £2000, to be given yearly to the member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding the award.

The Dobbie-Smith Gold Medal in Botany is open for competition on each alternate year to all matriculated students of the year of award, for an essay on a botanical subject.

The Medical Faculty Prizes.—Gold medals are given on the day of graduation to Doctors of Medicine whose theses are deemed worthy of that honour.

##### *Lectureship.*

The Swiney Lectureship on Geology, value £144, tenable for five years, is open to Doctors of Medicine of the University of Edinburgh. It is in the patronage of the trustees of the British Museum.

#### MINIMUM COST OF ATTENDING THE MEDICAL CLASSES, WITH THE ORDER OF STUDY.

Whilst there is no authorised order of study, the usual course is given below.—Preliminary Examination in Arts to be taken in the month of March or October, before entering medical classes. By order of the General Medical Council, all medical students require to be registered as such within fifteen days after the commencement of the session. Students are recommended to commence their medical studies by attending the summer session.

*First Summer Session.*—Preliminary examination fee, 10s.; matriculation fee, 10s.; Botany (garden fee, 5s.), £4 4s.; Natural History, £4 4s.; total, £9 8s.

*First Winter Session.*—Matriculation (for whole year), £1; Anatomy, £4 4s.; Practical Anatomy, £3 3s.; Chemistry, £4 4s.; hospital, £6 6s. (perpetual ticket, £12); total, £18 17s.

*Second Summer Session.*—Botany or Natural History, if not attended previously; Practical Chemistry, £3 3s.; examination in Botany, Natural History, and Chemistry, in October following, £5 5s.; total, £8 8s.

*Second Winter Session.*—Matriculation, £1; Institutes of Medicine, £4 4s.; Surgery, £4 4s.; hospital, £6 6s.; examination in Botany, Natural History, and Chemistry, in April, if not previously passed; total, £15 14s.

*Third Summer Session.*—Practical Pharmacy, £3 3s.; hospital; total, £3 3s.

*Third Winter Session.*—Matriculation, £1; Materia Medica, £4 4s.; Pathology, £4 4s.; Clinical Surgery, £4 4s.; hospital; examination in Anatomy, Physiology, Materia Medica, Pathology, in April or July, £5 5s.; total, £18 17s.

*Fourth Summer Session.*—Medical Jurisprudence, £4 4s.; outdoor dispensary, £2 2s.; hospital and clinical lectures; total, £6 6s.



*Fourth Winter Session.*—Matriculation, £1; Practice of Medicine, £4 4s.; Midwifery, £4 4s.; Practical Midwifery, £1 1s.; Clinical Medicine, £4 4s.; Vaccination, £1 1s.; outdoor dispensary, £1 1s.; hospital, total, £16 15s.

*Fifth Summer Session.*—Hospital; final examination for M.B. and C.M., £10 10s.; total minimum expenses for M.B. and C.M., £107 18s.

Only one course of instruction on each subject is here stated, that being the minimum.

*Fees for Degrees.*—Examination in Botany, Chemistry, chemical testing, and Natural History, £5 5s.; examination in Anatomy, Institutes of Medicine, Materia Medica, Pathology, £5 5s.; final examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and prescriptions, during last summer session, £10 10s.; registration fee, £1; total fees for M.B. diploma, £22. Additional fee for M.D. diploma, £5 5s.; Government stamp-duty (for M.D. only), £10.

*Note.*—Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25; registration, £1.

N.B.—The above fees include all charges for the diplomas.

Further information as to the classes, courses of lectures, etc., may be obtained on application to Thomas R. Fraser, M.D., Dean of the Faculty of Medicine; or from the University Calendar, published by James Thin, Edinburgh.

The new buildings intended for the Faculty of Medicine to the University are now sufficiently advanced to admit of the departments of Chemistry and Materia Medica being removed there for the ensuing winter session, in addition to the departments of Anatomy, Surgery, Practice of Physic, Midwifery, Physiology, and Pathology, which were carried on there during the past session.

#### ROYAL INFIRMARY, EDINBURGH.

For information apply to the Secretary to the Royal Infirmary.

#### SCHOOL OF MEDICINE, EDINBURGH.

On Monday, October 1, the Practical Anatomy Rooms and Chemical Laboratories will be opened. The courses of lectures will be commenced—winter session, October 24; summer session, May 1.

##### WINTER SESSION.

Anatomy: Practical Anatomy, Course of Lectures, Course of Demonstrations—Mr. J. Symington and Mr. Charles W. Cathcart.  
Chemistry: Lectures, Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.  
Practice of Physic—Dr. John Wyllie, Dr. J. O. Affleck, and Dr. Byrom Bramwell.  
Pathology and Morbid Anatomy—Dr. J. B. Buist.  
Surgery—Mr. Duncan, Mr. A. G. Miller, and Dr. C. W. MacGillivray.  
Midwifery and Diseases of Women and Children—Dr. Charles Bell and Dr. Peter Young.  
Clinical Medicine (Royal Infirmary)—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald (Diseases of Women).  
Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.

Institutes of Medicine and Practical Physiology—Dr. James and Mr. James Hunter.  
Medical Jurisprudence and Public Health—Dr. Littlejohn.  
Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.  
Practical Materia Medica, including Practical Pharmacy—Dr. Wm. Craig.  
Diseases of the Ear—Dr. Kirk Duncanson.  
Diseases of the Eye—Dr. John Robertson.  
Vaccination (Royal Dispensary)—Dr. Husband.  
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.  
Practical Midwifery—Dr. Angus Macdonald and Dr. Charles Bell.  
Practical Midwifery and Clinical Gynaecology—Dr. Peter Young.  
Practical Gynaecology—Dr. Halliday Croom and Dr. David Berry Hart.

##### SUMMER SESSION.

Practical Anatomy, Course of Demonstrations—Mr. J. Symington and Mr. C. W. Cathcart.  
Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.  
Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.  
Practical Materia Medica, including Practical Pharmacy—Dr. W. Craig.  
Midwifery and Diseases of Women and Children—Dr. Angus Macdonald, Dr. Halliday Croom, Dr. Charles Bell, Dr. Peter Young, and Dr. David Berry Hart.  
Medical Jurisprudence and Public Health—Dr. Littlejohn.  
Practical Physiology—Mr. James Hunter.  
Practical Pathology—Dr. J. B. Buist.  
Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.

Clinical Medicine (Royal Infirmary)—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald (Diseases of Women).  
Clinical Surgery (Royal Infirmary)—Mr. Joseph Bell.  
Practical Medicine and Diagnosis—Dr. Byrom Bramwell.  
Diseases of the Eye—Dr. J. Robertson and Mr. George Berry.  
Diseases of the Ear—Dr. Kirk Duncanson and Dr. P. McBride.  
Vaccination—Dr. Husband.  
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.  
Insanity—Dr. J. Batty Tuke.  
Diseases of the Skin—Dr. Allan Jamieson.  
Practical Surgery—Mr. Duncan.  
Operative Surgery and Surgical Anatomy—Mr. A. G. Miller and Dr. C. W. MacGillivray.  
Practical Midwifery—Dr. Charles Bell.  
Clinical Gynaecology and Clinical Midwifery—Dr. Halliday Croom.  
Practical Midwifery and Clinical Gynaecology—Dr. Peter Young.

The lectures qualify for the University of Edinburgh and the other Universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin; and the other medical and public Boards.

##### FEES.

For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Practical Anatomy (six months' course), £3 3s.; course of demonstrations, £2 2s.; perpetual, £4 4s. Practical Anatomy, with course of demonstrations, £4 4s. Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica (including Practical Pharmacy), Diseases of the Ear, Diseases of the Skin, and Diseases of Children, each £2 2s. Vaccination, £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy (including anatomical demonstrations), Operative Surgery, and Practical Medicine and Medical Diagnosis, each £2 2s.; Insanity, £1 1s.

The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the joint examination, is £95, which is payable by yearly instalments during the period of study; whilst the minimum cost for the single qualification of either Physician or Surgeon, including the fee for examination, is £85.

#### UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

##### LECTURES AND CLASSES.—WINTER SESSION.

Anatomy, Junior; Anatomy, Senior; Practical Anatomy—Prof. Cleland and Demonstrators.  
Chemistry, Chemical Laboratory—Prof. Ferguson.  
Clinical Medicine—Prof. McCall Anderson and Prof. Gairdner.  
Clinical Surgery—Prof. George Buchanan and Prof. Macleod.

Materia Medica—Prof. Charteris.  
Midwifery—Prof. Leishman.  
Pathology—The Pathologists of the Infirmary.  
Physiology—Physiological Laboratory—Prof. McKendrick.  
Practice of Physic—Prof. Gairdner.  
Surgery—Prof. Macleod.  
Zoology—Professor Young.

##### SUMMER SESSION.

Botany, Botanical Demonstrations—Prof. Bayley Balfour.  
Clinical Medicine—Prof. McCall Anderson and Prof. Gairdner.  
Clinical Surgery—Prof. Buchanan and Prof. Macleod.  
Embryology, and Demonstrations on Anatomy, Elementary Anatomy, Practical Anatomy—Prof. Cleland and Demonstrators.  
Forensic Medicine—Prof. Simpson.  
Lectures on the Eye—Dr. T. Reid.

Operative Surgery—Prof. Macleod.  
Pract. of Medicine—Prof. Gairdner.  
Practical Chemistry, Organic Chemistry, Chemical Laboratory—Prof. Ferguson.  
Practical Materia Medica—Prof. Charteris.  
Practical Physiology—Prof. McKendrick.  
Zoological Laboratory—Prof. Young.  
Diseases of Women—Prof. Leishman.  
Insanity—Dr. Yellowlees.

##### CLASS FEES.

Fee for each course, £3 3s., except lectures on the Eye, £1 1s.; lectures on Insanity, £2 2s.

In addition to the University courses, the following Hospitals and Dispensaries afford ample means for practical instruction in the various departments of Medicine and Surgery:—

##### WESTERN INFIRMARY.

This Hospital contains 400 beds for medical and surgical patients, with wards for skin diseases and for diseases of women.

##### MEDICAL AND SURGICAL STAFF.

###### Physicians.

Prof. W. T. Gairdner.  
Prof. T. McCall Anderson.  
Dr. James Finlayson.  
Dr. Gavin P. Tennent.

###### Surgeons.

Prof. George H. B. Macleod.  
Prof. George Buchanan.  
Dr. Alexander Patterson.  
Dr. Hector C. Cameron.

Assistant-Physician—Dr. Joseph Coats.

Diseases of Women—Prof. W. Leishman.

Dispensary Physicians—D. C. McVail, M.B., Dr. S. Gemmell, and Dr. James Christie.

Extra Dispensary Physician—Dr. Wm. G. Dun.

Dispensary Surgeons—D. N. Knox, M.B., J. C. Renton, M.B., and Dr. G. J. Beatson.

Extra Dispensary Surgeons—Dr. David Newman and Dr. A. E. Maylard.

Pathologist—Dr. Joseph Coats.

Consulting Physician-Accoucheur—Professor Leishman, M.D.

Outdoor Physicians-Accoucheur—Dr. Robert Kirk, Dr. W. L. Reid, and Dr. Murdoch Cameron.

Dispensary Surgeon for Diseases of the Ear—Thomas Barr, M.D.

Surgeon-Dentist—Mr. James Rankin Brownlie, L.D.S.

Medical Superintendent—Dr. Alexander.

Lady Superintendent—Miss E. Clyde.

Secretary—Henry Johnston, 11, Bothwell-street.

The hour of visit is 9 a.m.

##### FEES.

The fees for admission to the practice of this Infirmary are—First year, £10 10s.; second year, £10 10s.; afterwards free. The fees for clinical lectures are included in the foregoing.



## GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

The winter session commences on October 30, and the summer session on May 1. Lectures are delivered on the subjects necessary for qualifying, and extra courses are given on practical subjects now required by examining boards. During summer, lectures on Insanity will be given by Dr. A. Robertson, Physician-Superintendent of the City Parochial Asylum.

### LECTURES.

Anatomy—Mr. H. F. Clark.	Materia Medica—Dr. John Dougall.
Chemistry—Mr. John Clark, Ph.D.	Medicine—Dr. J. W. Anderson.
Clinical Medicine and Clinical Surgery—The Physicians and Surgeons of the Hospital.	Mental Diseases—Dr. A. Robertson.
Dental Surgery—Dr. J. C. Woodburn.	Midwifery—Dr. J. Stirton.
Diseases of the Ear—Dr. Macfie.	Pathology—Dr. D. Newman.
Diseases of the Eye—Mr. H. E. Clark.	Physiology—Dr. Barlow.
Forensic Medicine—Mr. Glaister.	Practical Physiology & Op. Surgery—Dr. Barlow and Dr. Macewen.
	Surgery—Dr. W. Macewen.

The Royal Infirmary contains 532 beds. Of these 214 are for medical and 318 for surgical cases, with special wards for the treatment of venereal disease in males and diseases of women. Diseases of the ear and throat and skin are specially treated at the outdoor department.

### MEDICAL AND SURGICAL STAFF.

<i>Physicians.</i>	<i>Dispensary Surgeons.</i>
Dr. Perry.	Dr. Lothian.
Dr. Maclaren.	Dr. Fleming.
Dr. Wood Smith.	<i>Extra Dispensary Surgeons.</i>
Dr. Charteris.	Dr. Barlow.
Dr. Scott Orr.	Dr. Jas. A. Adams.
<i>Physician for Diseases of Women.</i>	Dr. Muir.
Dr. Stirton.	Dr. Shaw.
<i>Surgeons.</i>	<i>Vaccinator.</i>
Dr. Morton.	Dr. Tannahill.
Dr. Macewen.	<i>Pathologist.</i>
Dr. E. Watson.	Dr. Newman.
Dr. Dunlop.	<i>Diseases of the Throat.</i>
Dr. Clark.	Dr. Eben Watson.
<i>Dispensary Physicians.</i>	<i>Diseases of the Skin.</i>
Dr. J. W. Anderson.	Dr. James Provan.
Dr. Dougall.	<i>Aural Surgeon.</i>
<i>Extra Dispensary Physicians.</i>	Dr. Macfie.
Dr. Middleton.	<i>Dental Surgeon.</i>
Dr. Henderson.	Dr. J. C. Woodburn.
Dr. Campbell Black.	
Dr. Macphee.	

### APPOINTMENTS.

There are five Physicians' and five Surgeons' Assistants, who are boarded and lodged in the Hospital free of charge, and who perform all the duties of House-Physicians and House-Surgeons. These appointments are held for twelve months—six in the medical, and six in the surgical wards—and are open to those students of the Infirmary who have completed their curriculum and passed all their examinations except the last, or who have a qualification in Medicine or Surgery, the latter being preferred.

Clinical Clerks, Dressers, and Dispensary Clerks are selected from the students without any additional fee; and from the large number of accident cases and cases of acute disease received into the wards, these appointments are numerous, and invaluable to the student. Attendance at the Dispensary for the treatment of out-patients, and admission to the Pathological Museum, also free.

### FEES.

For each course of lectures, first session, £2 2s.; second ditto, and perpetual, £1 1s.

The Anatomy Class fees are—first session, £4 4s.; second ditto, £4 4s.; afterwards, £1 11s. 6d. per annum for Practical Anatomy; Practical and Systematic Pathology, £3 3s.

### HOSPITAL FEE.

The fee for perpetual attendance on the practice of the Infirmary and on the courses of clinical instruction and lectures is £21.

Prospectus can be obtained from Dr. Thomas, the Superintendent of the Hospital.

## ANDERSON'S COLLEGE, GLASGOW.—FACULTY OF MEDICINE.

The winter session begins on Tuesday, October 30, 1883, and closes on Thursday, March 27, 1884; and the summer session begins on the first Tuesday of May, and closes about the middle of July.

### WINTER SESSION.

Chemistry—Professor Dittmar.	Practice of Medicine—Professor Gemmell.
Surgery—Professor Dunlop.	Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.
Junior Anatomy, Senior Anatomy, Practical Anatomy—Professor A. M. Buchanan and Demonstrator.	Dental Mechanics and Metallurgy—Mr. W. S. Woodburn, L.D.S.
Institutes of Medicine (Physiology) & Practical Physiology—(vacant).	
Materia Medica—Professor Morton.	

### SUMMER SESSION.

Operative Surgery—Prof. Dunlop.	Dental Anatomy—Dr. David Taylor, L.D.S.
Surgical Anatomy, Dissection, Osteology—Prof. A. M. Buchanan and Demonstrator.	Dental Surgery—Mr. J. R. Brownlie, L.D.S.
Midwifery—Prof. A. Wallace.	Medical Jurisprudence—Professor Alex. Lindsay.
Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.	Public Health—Dr. James Christie.
Aural Surgery—Dr. Thomas Barr.	Practical Medical Chemistry—Prof. Dittmar.
	Botany—Professor Wilson.

### CLASS FEES.

For each of the above courses of lectures (Anatomy and Dental lectures excepted), first session, £2 2s.; second session, £1 1s.; afterwards free.

*Anatomy Class Fees.*—First session (including Practical Anatomy), £4 4s.; second session (including Practical Anatomy), £4 4s.; third session, and perpetual, £1 1s.; summer fee (including Practical Anatomy), £1 11s. 6d.; Practical Anatomy only, £1 1s.; Osteology, £1 1s.

*Dental Fees.*—£2 2s. each course.

Students who have attended classes at other schools, but who desire to pursue their studies at Anderson's College, will be admitted to such classes as they may have attended elsewhere at the reduced fees.

*Royal Infirmary.—Fees.*—Hospital practice and clinical instruction, first year, £10 10s.; second year, £10 10s.; afterwards free. Six months, £6 6s.; three months, £4 4s. Vaccination fee, £1 1s.

*Dental Hospital.*—Fee for the two years' hospital practice required by the curriculum for the Dental Licence, £10 10s.

*Ophthalmic Institution.*—Students of Anderson's College are admitted to the practice of this Institution on paying a matriculation fee of 5s.

The fees for all the lectures and hospital practice required of candidates for the diplomas of Physician and Surgeon amount to £48. This is not payable in one sum, but students simply fee their classes as they take them out.

## UNIVERSITY OF ST. ANDREWS.

There is no proper Faculty of Medicine in this University, but it is possible for the student to make an *annus medicus* by attendance on certain of the courses—as Natural History, Professor Nicholson, M.D.; Chemistry, Professor Heddle, M.D.; and Anatomy and Medicine, Professor Pettigrew, M.D.

## UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

### LECTURES.—WINTER SESSION.

Anatomy—Professor Struthers.	Practical Anatomy and Demonstrations—Professor Struthers and Assistants.
Chemistry—Professor Brazier.	Pathological Anatomy—Professor Hamilton.
Institutes of Medicine—Professor W. Stirling.	Practice of Medicine—Professor Smith-Shand.
Materia Medica—Prof. Davidson.	Surgery—Professor Alex. Ogston.
Medical Logic and Medical Jurisprudence—Professor M. Hay.	Natural History—Prof. Nicholson.
Midwifery and Diseases of Women and Children—Prof. Stephenson.	

### SUMMER SESSION.

Botany—Professor Trail.	Practical Pathological Anatomy—Professor Hamilton.
Practical Pharmacy—Prof. Davidson and Assistant.	Practical Physiology—Professor Stirling.
Practical Midwifery and Gynaecology, and Clinical Diseases of Children—Professor Stephenson.	Natural History—Professor Nicholson.
Practical Chemistry—Prof. Brazier.	Practical Natural History—Professor Nicholson.
Practical Anatomy and Demonstrations—Professor Struthers and Assistants.	Operative Surgery—Professor Alex. Ogston.

The Anatomical Course in summer includes instruction in Histology and in the use of the microscope; and instruction in Osteology for beginners.

### FEES.

Matriculation fee (including all dues) for the winter and summer session, £1; for the summer session alone, 10s.

Practical Ophthalmology, Dr. A. D. Davidson. Practical



Toxicology, Dr. F. Ogston, jun. Dental Surgery (in summer), Dr. Williamson.

The regulations relative to the registration of students of Medicine, and the granting of degrees in Medicine and Surgery, may be had of Professor Brazier, Dean of the Faculty of Medicine.

Full information regarding the classes and degrees in the Faculties of Arts, Law, and Divinity, and in regard to Bursaries and Scholarships, will be found in the University Calendar, published by Messrs. A. King and Co., Upper Kirkgate, Aberdeen, by post 2s. 2d.

#### ABERDEEN ROYAL INFIRMARY.

The Aberdeen Royal Infirmary contains about 200 beds.

##### MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. A. Harvey.

##### Physicians.

Dr. J. W. F. Smith-Shand.  
Dr. R. Beveridge.  
Dr. Angus Fraser.

##### Surgeons.

Mr. A. Ogston.  
Mr. J. O. Will.  
Mr. R. J. Garden.  
Mr. John Hall.

##### Resident Assistant-Physician.

David R. Mackinnon, M.B., C.M.

##### Resident Assistant-Surgeon.

Jas. Taylor, M.B., C.M.

Ophthalmic Surgeon—Dr. Alex. D. Davidson.

Dental Surgeon—Dr. W. H. Williamson.

Chloroformist—Dr. P. B. Smith.

Resident Superintendent and Apothecary—(vacant).

Curator of Museum—Dr. J. Rodger.

Treasurer and Secretary—Mr. W. Carnie.

## SCHOOLS AND HOSPITALS IN IRELAND.

### UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC.

The School of Physic is under the conjoint superintendence of the University authorities and those of the King and Queen's College of Physicians.

#### LECTURES AND CLASSES.

Anatomy and Chirurgery—Vacant.  
Botany—Dr. E. Percival Wright.  
Chemistry—Dr. J. E. Reynolds, F.R.S.  
Comparative Anatomy—Vacant.  
Institutes of Medicine—Dr. J. M. Purser.  
Materia Medica and Pharmacy—Dr. Walter G. Smith.  
Midwifery—Dr. J. R. Kirkpatrick.

Medical Jurisprudence—Dr. Robert Travers.  
Natural Philosophy—Mr. Fitzgerald, F.T.C.D.  
Operative Surgery—Dr. Richard G. Butcher.  
Practice of Medicine—Dr. J. M. Finny.  
Surgery—Dr. Edward H. Bennett.  
University Anatomist—Dr. Thomas E. Little.

Winter Session, 1883-84.—The winter session commences on October 1. Lectures will commence on November 1. The dissecting-room will be opened on October 1.

#### SCHOLARSHIPS AND PRIZES.

Two Medical Scholars are elected annually, by the Board of Trinity College, at an examination held at the end of June—subject to conditions stated in the College Calendar. Each scholarship is worth £20 per annum, and is tenable for two years.

A Travelling Prize in Medicine and Surgery is offered in each alternate year, subject to certain conditions; the value of each prize is £100. Particulars may be obtained from the Medical Registrar.

### SIR PATRICK DUN'S HOSPITAL.

#### MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. John T. Banks.

Consulting Surgeon—Dr. W. Colles.

##### Clinical Physicians.

Dr. John Malet Purser.  
Dr. W. G. Smith.  
Dr. J. Magee Finny.

##### Clinical Surgeons.

Dr. Thomas E. Little.  
Dr. Edward H. Bennett.  
Dr. Charles B. Ball.

##### Midwifery Physician.

Dr. J. R. Kirkpatrick.

##### Lecturer in Operative Surgery.

Mr. Richard G. Butcher.

Resident Surgeon—Mr. James Chute.

#### FEES.

Clinical Lectures and Hospital Attendance.—The payment of £12 12s. entitles a student to the benefits of hospital attendance and clinical teaching for the winter and summer sessions, commencing October 2. Fee for winter session only, £8 8s.; fee for summer session only, £5 5s.

Practical Midwifery.—Students desirous of entering for twelve months' instruction in Practical Midwifery are required to pay a maternity fee of £3 3s. each. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other students are required to pay £3 3s. each to the King's Professor for twelve months' practical instruction, in addition to the Hospital maternity fee. Students who have paid the Hospital maternity fee are entitled to attend the demonstrations in Obstetric Surgery given by the King's Professor. Total fees for College Students, £3 3s.; total fees for Externs, £6 6s.

#### PRIZES.

Clinical Medals.—The Governors of the Hospital award a Silver Clinical Medal in Medicine to the student who shall pass the best examination on the medical cases treated in the Hospital during the year; and a Silver Clinical Medical in Surgery to the student who shall pass the best examination on the surgical cases treated in the Hospital during the year.

### QUEEN'S COLLEGE, BELFAST.

Anatomy and Physiology—Dr. P. Redfern.	Natural Philosophy—Dr. J. D. Everett.
Chemistry—Dr. E. A. Letts.	Practice of Medicine—Dr. James Cuming.
Materia Medica—Dr. J. S. Reid.	Practice of Surgery—Dr. A. Gordon.
Medical Jurisprudence—Dr. J. F. Hodges.	Zoology and Botany—Dr. R. O. Cunningham.
Midwifery—Dr. R. F. Dill.	

The demonstrations in Anatomy are delivered by Dr. Anderson. The lectures in Midwifery, six months' course, will commence on February 1, and the lectures in Medical Jurisprudence and the courses of Botany and Practical Chemistry will commence in May.

#### FEES.

Anatomy and Physiology—First course, £3; each subsequent course, £2. Anatomical Demonstrations and Practical Anatomy—each course, £3. Practical Chemistry, £3. Other medical lectures—first course, £2; each subsequent course, £1.

#### SCHOLARSHIPS.

Two Medical Scholarships are awarded to the students of each year of the medical course. The examinations commence on October 23.

### BELFAST GENERAL HOSPITAL.

Clinical Instruction—A winter session, £5 5s. A summer session, £2 2s. Perpetual fee, payable in one sum of £10 10s., or two instalments of £5 5s. each on entering for the first and second years. Hospital fee, 10s. 6d. each winter or summer session.

ULSTER HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN AND MIDWIFERY DISPENSARY, 11, FISHERWICK-PLACE.

Fee for winter six months, £3 3s.

### BELFAST LYING-IN HOSPITAL.

Fee for the session, £2 2s.

### BELFAST DISTRICT LUNATIC ASYLUM.

Fee for course, £3.

### QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.

#### LECTURERS.

Anatomy and Physiology—Dr. J. J. Charles.	Practical Anatomy—The Professor, assisted by Demonstrators.
Chemistry and Practical Chemistry—Dr. Maxwell Simpson.	Practice of Medicine—Dr. D. C. O'Connor.
Materia Medica—Dr. M. O'Keefe.	Practice of Surgery—Dr. Stephen O'Sullivan.
Midwifery—(vacant).	Zoology and Botany—Professor M. Hartog.
Natural Philosophy—Prof. John England.	

#### SCHOLARSHIPS.

Eight Scholarships are awarded to students in Medicine, if qualified—viz., two scholarships of £25 each to students commencing their first, second, third, and fourth years. Clinical Medicine and Surgery at the North and South Infirmaries, and Clinical Midwifery at the Lying-in Hospital.

### QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

#### LECTURERS.

Anatomy and Physiology, and Practical Anatomy—Dr. J. P. Pye.	Medical Jurisprudence—Dr. R. J. Kinkead.
Botany and Zoology—Dr. W. King.	Midwifery and Diseases of Women and Children—Dr. R. J. Kinkead.
Chemistry—Dr. T. H. Rowney.	Natural Philosophy—Dr. Joseph Larmor.
Logic and Mental Philosophy—Dr. T. W. Moffett.	Practice of Medicine—Dr. John I. Lynham.
Materia Medica—Dr. N. W. Colahan.	Practice of Surgery—Dr. J. V. Browne.

The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College.

#### SCHOLARSHIPS AND EXHIBITIONS.

Eight Scholarships of the value of £25 each, and Exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

#### FEES.

Anatomy and Physiology, £3 first session; afterwards £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other classes, £1 for each course extending over one term only, £2 for each course extending over more than



one term, and £1 for each re-attendance on the same. Hospitals, £4 4s.

For further information, application may be made to Professor Townsend, M.A., D.Sc., Registrar.

### THE ADELAIDE MEDICAL AND SURGICAL HOSPITALS, PETER-STREET, DUBLIN.

#### MEDICAL AND SURGICAL STAFF.

Physicians.	Surgeons.
Dr. Henry H. Head.	Mr. John K. Barton.
Dr. James Little.	Mr. Kendal Franks.
Obstetric Physician.	Ophthalmic Surgeon.
Dr. R. D. Purefoy.	Dr. Rosborough Swanzy.
Assistant-Physician.	Dental Surgeon.
Dr. Wallace Beatty.	Dr. R. Theodore Stack.

Further particulars can be obtained from any member of the medical staff.

### DR. STEEVENS' HOSPITAL, DUBLIN.

#### MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. H. Freke and Dr. Grimshaw.  
Consulting Surgeons—Mr. S. G. Wilmot and Sir G. H. Porter.

Physicians.	Surgeons.
Dr. H. J. Twcedy.	Mr. W. Colles.
Dr. R. A. Hayes.	Mr. E. Hamilton.
	Mr. R. M'Donnell.
Obstetric Physician.	Resident Surgeon.
Dr. A. Duke.	Mr. T. Myles.

#### FEES.

Hospital Practice, nine months, £12 12s.; ditto, six months, £8 8s.

Further particulars may be learned from the Resident Surgeon at the Hospital; or from Dr. R. A. Hayes, Hon. Sec., 32, Merrion-square South.

### ST. VINCENT'S HOSPITAL, DUBLIN.

#### HOSPITAL STAFF.

Physicians.	Surgeons.
Dr. Francis J. B. Quinlan.	Mr. Edward D. Mapother.
Dr. M. F. Cox.	Mr. J. S. McArdle.
Gynaecologist—Dr. J. A. Byrne.	
Ophthalmic Surgeon—Mr. Redmond.	
Surgeon-Dentist—Mr. William J. Doherty.	
House-Surgeon—Mr. D. P. Kenna.	
Apothecary—Mr. C. T. Boland.	

#### FEES.

Winter and summer session, £12 12s.; separately, £8 8s. and £5 5s.

Further particulars may be learned on application to the Secretary of the Medical Board, Dr. Cox, 97, Stephen's-green S., Dublin, or at the Hospital during the hours of attendance.

### JERVIS-STREET HOSPITAL, DUBLIN.

#### MEDICAL AND SURGICAL STAFF.

Physicians.	Surgeons.
Dr. Stephen M. MacSwiney.	Dr. William Martin.
Dr. J. Stannus Hughes.	Dr. W. Stoker.
Mr. Austin Meldon.	Dr. J. J. Cranny.
Mr. James Edward Kelly.	Dr. Robert MacDonnell.
	Mr. J. V. Lentaigne.

This Hospital, which is at present being rebuilt upon an extensive scale, is most central in situation. From its proximity to the quays and principal factories it presents unrivalled opportunities to the students of seeing every form of surgical injury. An extensive Dispensary for out-door patients is attached to the Hospital, at which the students are allowed to perform minor operations, under the guidance of the Surgeon on duty, and are rendered familiar with the details of dispensary practice.

Instruction is given by the Physician and Surgeon on duty on alternate mornings, between nine and eleven o'clock, at the bedside, when the nature, progress, and treatment of each case are explained. Two clinical lectures are delivered each week on the most important cases under treatment, when pathological specimens are exhibited. Surgical instruments and appliances of all kinds are constantly made the subject of special instruction.

Surgical Operations are performed on Tuesday mornings, at ten o'clock, except in cases of emergency, when due notice is given, if possible.

Practical Pharmacy is taught under the superintendence of the Apothecary.

Resident Pupils and Dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special Certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

Certificates of attendance are recognised by all the licensing bodies and examining boards in the United Kingdom.

### CARMICHAEL SCHOOL OF MEDICINE, DUBLIN.

#### LECTURES.

Surgery—Dr. J. K. Barton and Dr. A. H. Corley.	Midwifery—Mr. W. B. Jennings and Mr. A. V. Macan.
Ophthalmic Surgery—Dr. C. E. Fitzgerald.	Chemistry—Dr. G. R. C. Tichborne.
Practical Anatomy—Vacant.	Pathology—Dr. S. Woodhouse.
Systemic Anatomy—Dr. Francis T. Heuston.	Zoology and Botany—Dr. W. R. McNab.
Physiology—Mr. J. A. Scott.	Materia Medica—Dr. G. F. Duffey.
Practice of Medicine—Dr. Moore.	Medical Jurisprudence—Mr. Hugh Auchinleck.

#### SCHOLARSHIPS AND PRIZES.

Prizes to the value of £67 on the foundation of the late Richard Carmichael, Esq., the Mayne Scholarship, value £15, and two Carmichael Scholarships, value £15 and £10 respectively (a second prize of £5 being awarded with each scholarship), are awarded annually.

For further particulars apply to the Registrar at the School.

### CATHOLIC UNIVERSITY SCHOOL OF MEDICINE, CECILIA-STREET, DUBLIN.

#### LECTURES AND CLASSES.

Anatomy and Physiology—Dr. Nixon and Dr. Coppinger.	Medical Jurisprudence—Dr. MacSwiney.
Anatomical Demonstrations—The Professors of Anatomy and Physiology.	Natural Philosophy—The Very Rev. Dr. Molloy.
Practical Histology—The Professors of Anatomy and Physiology.	Pathology—Dr. Lyons.
Botany—Dr. Sigerson.	Practical Chemistry—Dr. Campbell.
Chemistry—Dr. Campbell.	Theory and Practice of Medicine—Dr. Lyons.
Dissections—Messrs. Redmond, McDonnell, McCullagh, McArdle, Chance, and O'Carroll.	Theory and Practice of Midwifery—Dr. Byrne.
Materia Medica—Dr. Quinlan.	Theory and Practice of Surgery—Mr. Hayes.
	Ophthalmology—Dr. D. D. Redmond.

#### FEES.

For each course £3 3s., excepting Dissections and Practical Chemistry, which are £5 5s. Parents and guardians are recommended to forward all fees directly, by cheque or order, to the Registrar, Professor Campbell, at the School.

Further particulars may be learned from the Secretary, Professor Campbell.

### CITY OF DUBLIN HOSPITAL, UPPER BAGGOT-STREET.

Consulting Physicians—Dr. James Apjohn and Dr. John T. Banks.

Consulting Surgeon—Mr. Joliffe T. Tufnell.

Physicians—Dr. Hawtrey Benson and Dr. George F. Duffey.

Surgeons—Mr. Henry Gray Croly, Mr. William I. Wheeler, and Dr. Henry Fitzgibbon.

Ophthalmic and Aural Surgeon—Vacant.

Gynaecologist—Dr. William J. Smyly.

Fees.—Nine months' hospital attendance, £12 12s.; six months, £8 8s.; three months, £5 5s.

For further particulars apply to Mr. Wheeler, 27, Lower Fitzwilliam-street.

### MATER MISERICORDIÆ HOSPITAL, ECCLES-STREET, DUBLIN.

#### MEDICAL AND SURGICAL STAFF.

Physicians.	Surgeons.
Dr. Christopher J. Nixon.	Mr. Patrick J. Hayes.
Dr. Joseph Redmond.	Mr. Charles Coppinger.
Dr. Michael Boyd.	Mr. Malachy Kilgarraff.
Assistant-Physician.	Assistant-Surgeon.
Dr. John Murphy.	Mr. Kennedy.
Obstetric Physician—Dr. T. M. Madden.	
House-Surgeon—Mr. Francis J. Cruise.	
Dental Surgeon—Mr. D. Corbett.	

This Hospital contains 250 beds, including fifty beds for fever and other contagious diseases.

Certificates of attendance upon this Hospital are recognised by all the licensing bodies in the United Kingdom.

#### PRIZES.

Two Clinical prizes (the "Leonard Prizes") of £15 each, one medical and one surgical, will be given at the end of the winter session.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.



Further particulars may be learned by application to Mr. Hayes, Secretary to the Medical Board, 18, Merrion-square, or to any of the other medical officers.

### MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

#### MEDICAL AND SURGICAL STAFF.

Physicians.	
Dr. Arthur Wynne Foot.	Dr. John William Moore.
Surgeons.	
Sir George H. Porter.	Mr. Rawdon Macnamara.
Mr. James H. Wharton.	Mr. Lambert H. Ormsby.
Mr. Philip Crampton Smyly.	Mr. William J. Hepburn.

The ensuing winter session will commence on October 1, and the course of clinical lectures on the first Monday in November.

Clinical lectures, of which four will be delivered weekly, and instructions in Medicine and Surgery, will be given on alternate days.

The Physicians and Surgeons on duty will visit the Hospital at 9 a.m., so as to allow the members of the class to be in attendance at their respective Schools of Medicine at 11 a.m.

The Hospital, which contains 120 beds for the reception of medical and surgical cases, and to which an extensive dispensary (open daily), lending library, and physical laboratory are attached, is within a few minutes' walk of the University, the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, and the Ledwich School of Medicine.

An additional ward has been erected for the reception of children, in which the pupils will have an opportunity of studying that highly important subject—infantile disease.

Certificates of attendance at this Hospital are recognised by all the universities, colleges, and licensing bodies in the United Kingdom.

Prizes will be given at the termination of the winter course to the best answerers in their respective classes.

The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to Mr. W. J. Hepburn, Hon. Sec., 31, Upper Merrion-street, Dublin; or at the Hospital.

### MERCER'S HOSPITAL, WILLIAM-STREET, DUBLIN.

#### STAFF.

Physicians—Dr. T. P. Mason and Dr. Charles Frederick Knight.  
Surgeons—Mr. E. S. O'Grady, Mr. F. Alcock Nixon, and Mr. M. A. Ward.

This Hospital, one of the first founded in Dublin, is situated in a central position, and is in close proximity to the Schools of the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, Catholic University, and the Ledwich.

Fees for the winter and summer session (nine months) £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital, or from Dr. James Shaw, Secretary to the medical staff.

### ROTUNDA HOSPITALS, RUTLAND-SQUARE, DUBLIN.

Master—Mr. Arthur V. Macan.  
Consulting Physician—Dr. James Little.  
Consulting Surgeon—Dr. William Colles.  
Assistant-Physicians—Dr. Richard Henry and Mr. John Lilly Lane.  
Pathologist—Dr. G. F. Duffey.

This institution consists of two distinct Hospitals, namely, the Lying-in Hospital, into which 1200 labour cases are on an average admitted annually, and the Auxiliary Hospital, set apart for the reception and treatment of patients suffering from the various forms of uterine and ovarian disease; about 500 patients are received into this Hospital during each year.

There is also in connexion with the Hospital a large extern Maternity (1500 patients were in the past year attended at their own homes), and a Dispensary for diseases peculiar to women, which is open daily.

Pupils are admitted to the practice of all these departments.

Clinical instruction in Midwifery and the Diseases of Women is given daily, and lectures are delivered regularly during the session on these subjects.

The diploma from this Hospital is granted to pupils on their passing an examination before the Master and Assistants, after a period of six months' attendance on the practice of the

Hospital. It is recognised by the Local Government Board as a qualification in Midwifery for all hospitals and dispensaries under their control.

Accommodation is provided for a limited number of intern pupils. Pupils can enter at any time.

#### TERMS OF ATTENDANCE.

Intern pupils—For six months £21, three months £12 12s., two months £9 9s., one month £6 6s. Extern pupils—For six months £10 10s., three months £6 6s.

Application to be made to the Master or Assistant-Physicians, at the Hospitals, Rutland-square, Dublin.

### ROYAL COLLEGE OF SURGEONS IN IRELAND. SCHOOL OF SURGERY.

#### LECTURES.—WINTER SESSION.

Anatomy and Physiology—Professor Mapother.	Midwifery and Gynæcology—Professor Roe.
Systemic and Descriptive Anatomy—Professor Thornley Stoker and Professor Cunningham.	Surgery—Prof. J. Stannus Hughes and Professor Stokes.
Chemistry—Professor Cameron.	Practice of Medicine—Professor A. W. Foot.

#### SUMMER SESSION.

Materia Medica—Prof. Macnamara.	Practical Chemistry—Professor Cameron.
Medical Jurisprudence—Prof. Davy.	Ophthalmic and Aural Surgery—Professor Jacob.
Botany—Professor Minchin.	
Hygiene—Professor Cameron.	

A public course of lectures on Comparative Anatomy will be delivered by the Professor of Anatomy and Physiology, at the commencement of the session, and additional lectures on the same subject will be delivered during the winter.

The dissections are under the direction of the Professor of Anatomy, assisted by the demonstrators, who will daily attend to give instruction and to assist the students.

The fee for each course of lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s., Practical Chemistry, which is £5 5s., and Ophthalmic and Aural Surgery and Hygiene, which are free.

### RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

#### MEDICAL AND SURGICAL STAFF.

Physicians.	Surgeons.
Dr. J. T. Banks.	Mr. William Stokes.
Dr. B. G. M'Dowel.	Mr. William Thomson.
Dr. S. Gordon.	Mr. W. Thornley Stoker.
Dr. R. D. Lyons.	Mr. A. Corley.

Consulting Obstetric Surgeon—Dr. Kidd.

Assistant Physician—Dr. Woodhouse.

Ophthalmic Surgeon—Dr. A. Jacob.

Clinical instruction will commence on October 1. These Hospitals contain 312 beds—110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. Premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1200 patients, adjoins these Hospitals.

#### FEES.

For the winter and summer session (nine months), £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident clinical clerks, £21 for the winter session, £15 15s. for the summer session, including certificate of attendance.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 6:—

Fisher, Walter Mulrea, Angel-road, Hammersmith.  
Hadley, Wilfred James, Clapham Common.  
Hart, Arthur Herbert, The Hall, Harborne, Staffordshire.  
Humphreys, Charles Evan, Llanfair, near Welshpool.  
Linnell, Edward, Falmouth-road, S.E.  
Praeger, Emil Arnold, Walsworth-road, Hitchin.

The following gentleman also on the same day passed the Primary Professional Examination:—

Taaffe, John Ferdinand Hugh, Mercer's Hospital, Dublin.

**UNIVERSITY COLLEGE, LONDON.**—A dinner for old and present students of the Faculty of Medicine will be held on the 1st of October, at the Freemasons' Tavern. Mr. Erichsen will preside, and there will doubtless be a large gathering on the occasion. Dinner tickets may be had of the honorary secretaries, Dr. Poore, 30, Wimpole-street, or Mr. Stoneham, 28, University-street, W.C. Application must be made before September 25.



## TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE.

(The letter "i." denotes Single Course; "ii.," Two Courses, Perpetual or Unlimited Attendance.)

	ST. BARTHOLOMEW'S.*	CHARING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.	ST. THOMAS'S.
Anatomy. . .	i. £9 9s. ii. £13 2s. 6d.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £9 9s. ii. £12 12s. (inc. Pr. An.) i. £7 7s.	i. £5 5s. ii. £8 8s.	i. £7 17s. 6d.	i. £8 8s. ii. £12 12s.	i. £7 7s. ii. £10 10s.
Demonst. and Dissections .	i. £7 7s.	1st yr. £4 4s. 2nd yr. £3 3s.	i. £3 3s.	i. £7 7s.	i. £8 8s. ii. £11 11s.	i. £5 5s. ii. £8 8s.	i. £1 15s.	i. £6 6s. ii. £8 8s.	3 mos. £4 4s. 6 mos. £6 6s. ii. £10 10s.
Theoret. Physiology	i. £9 9s. ii. £13 2s. 6d.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £11 11s.	i. £4 4s. ii. £6 6s.	i. £4 4s.	i. £6 6s. ii. £8 8s.	i. £7 7s. ii. £10 10s.
Practical Physiology . .	i. £7 7s.	i. £4 4s.	i. £3 3s.	i. £7 7s.	i. £6 6s. ii. £8 8s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s.	i. £6 6s.
Histology . .	i. £2 12s. 6d.	...	i. £3 3s.	...	...	i. £3 3s.	...	...	...
Chemistry . .	i. £6 16s. 6d. ii. £9 9s.	i. £5 5s.	i. £6 6s. ii. £7 17s. 6d.	i. £7 7s.	i. £8 8s. ii. £11 11s.	i. £7 7s. ii. £10 10s.	i. £6 16s. 6d.	i. £6 6s. ii. £8 8s.	i. £7 7s. ii. £10 10s.
Practical Chemistry	i. £3 3s.	i. £4 4s.	i. £4 4s.	i. £7 7s.	i. £6 6s. ii. £8 8s.	i. £2 2s., or £5 5s.	i. £4 4s.	i. £3 3s.	i. £6 6s.
Botany . . .	i. £4 4s. ii. £5 5s.	i. £3 3s.	i. £3 13s. 6d. ii. £4 14s. 6d.	i. £5 5s.	i. £4 4s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s.
Com. Anatomy	i. £2 12s. 6d. ii. £4 4s.	i. £3 3s.	£4 4s.	i. £5 5s.	i. £4 4s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £2 12s. 6d.	i. £3 3s.	i. £4 4s. ii. £5 5s.
Medicine. . .	i. £6 16s. 6d. ii. £9 9s.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	i. £5 5s.	i. £6 6s. ii. £8 8s.	i. £7 7s. ii. £10 10s.
Practical Med.	...	i. £2 2s.	i. £4 4s.	...	...	...	...	...	...
Surgery . . .	i. £6 16s. 6d. ii. £9 9s.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	£5 5s.	i. £6 6s. ii. £8 8s.	i. £7 7s. ii. £10 10s.
Practical Surgery	i. £6 16s. 6d. ii. £9 9s.	i. £2 2s.	i. £4 4s.	i. (Op.) £5 5s. (Prac.) £4 4s.	i. £3 3s. ii. £5 5s.	i. £3 3s.	i. £4 4s.	i. £6 6s.	i. £6 6s.
Operative Surg.	i. £3 3s.	...	i. £2 2s.	...	...	i. £3 3s.	...	i. £5 5s.	i. £5 5s.
Midwifery . .	i. £6 16s. 6d. ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £7 7s.	i. £5 5s. ii. £6 6s.	i. £4 4s. ii. £6 6s.	i. £5 5s.	i. £4 4s. ii. £5 5s.	i. £5 5s. ii. £6 6s.
Pathology . .	i. £2 12s. 6d. ii. £4 4s.	i. £3 3s.	i. £3 3s.	i. (Dem.) £7 7s. (Lect.) £3 3s.	i. £3 3s. ii. £4 4s.	i. £3 3s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s.
Materia Medica	i. £6 16s. 6d. ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £5 5s.	i. £5 5s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £5 5s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s.
Forensic Medicine	i. £4 4s. ii. £5 5s.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £5 5s.	i. £5 5s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s.
Public Health .	i. £2 12s. 6d.	...	...	i. £3 3s.	i. £1 1s.	i. £3 3s. ii. £4 4s.	...	i. £3 3s.	i. £2 2s. ii. £3 3s.
Ophth. Surgery	i. £2 12s. 6d. ii. £4 4s.	...	...	...	...	i. £2 2s. ii. £3 3s.	i. £2 12s. 6d.	...	i. £2 2s. ii. £3 3s.
Dental Surgery	i. £2 12s. 6d. ii. £4 4s.	...	...	...	...	£2 2s.	i. £2 12s. 6d.	...	i. £2 2s. ii. £3 3s.
Mental Dis. .	i. £2 12s. 6d. ii. £4 4s.	...	...	i. £3 3s.	...	...	...	i. £3 3s.	i. £2 2s. ii. £3 3s.
Library . . .	1 year, 10s.	£1 1s.	Each winter, 10s. 6d. Comp. fee £2	...	£1 1s.	£1 1s.	£1 1s.	£1 1s.	...
Hospital Practice	<i>Medical.</i> 3 mos. £10 10s. 6 mos. £15 15s. 2 yrs. £23 12s. 6d. Unlimited, £33 1s. 6d.  <i>Surgical.</i> 3 mos. £13 2s. 6d. 6 mos. £19 19s. 12 mos. £26 5s. Unlimited, £33 1s. 6d.	<i>Med. or Surg.</i> 3 mos. £6 6s. 6 mos. £10 10s. 12 mo. £15 15s. Full period £21  <i>Med. and Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full period, £31 10s.	<i>Medical.</i> 1 yr. £10 10s. 2 yrs. £21 Perp. £31 10s.  <i>Surgical.</i> 1 yr. £10 10s. 2 yrs. £21 Perp. £31 10s.	<i>Med. or Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 1 yr. £24 3s. Perp. £31 10s.  <i>Med. and Surg.</i> 3 mos. £15 15s. 6 mos. £24 3s. 1 yr. £31 10s. Perp. £47 5s.	<i>Med. or Surg.</i> 1 sum. £5 5s. 1 win. £9 9s. 1 yr. £12 12s. Perp. £31 10s.  <i>Med. and Surg.</i> 1 sum. £8 8s. 1 win. £14 14s. 1 yr. £18 18s. Perp. £42	Perp. £52 10s. <i>Medical.</i> 6 mos. £10 10/ 12 ,, £15 15/ Unlim. £21  <i>Surgical.</i> 6 mos. £10 10/ 12 ,, £15 15/ 18 ,, £21 Unlim. £26 5/  <i>Obstetric.</i> 1 year £4 4/ Incl. Lec. £6 6/  <i>Dental.</i> Gen. fee £10 10/	<i>Medical.</i> 6 mo. £5 5s. 12 mo. £10 10s. Unlim. £21  <i>Surgical.</i> 6 mo. £5 5s. 12 mo. £10 10s. Unlim. £21  <i>Med. and Surg.</i> 6 mos. £8 8s. 12 mo. £15 15s. Unlim. £36 15s.	<i>Med. or Surg.</i> Perp. £15 15s. 1 yr. £8 8s. 6 mos. £5 5s.  <i>Med. and Surg.</i> Perp. £26 5s., or £10 10s. at beginning of 1st and 2nd years, and £5 5s. each subsequent year. 6 mos. £7 7s.	<i>Med. and Surg.</i> 3 mos. £15 6 mos. £26 9 mos. £35 12 mos. £40 Perp. £55

\* No return.

† Including three months' Clinical Clerkship.

‡ Including six months' Clinical Clerkship.

‡ Including three months' Dressership.

¶ Including six months' Dressership.

¶ Including nine months' Dressership.

We have endeavoured to make this table as complete and correct as possible, but from imperfect returns and deficient information, perfect accuracy cannot be vouched for.

Many classes which to outside students are chargeable in heavy sums are gratuitous to the regular students of the various schools.

Totals cannot here be given for the same reason, and because many classes are extra.

Information as to the mode of paying fees, and their amount, is appended to the notice of each school.



## TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE.

(The letter "i." denotes Single Course; "ii.," Two Courses, Perpetual or Unlimited Attendance.)

	UNIVERSITY COLLEGE.	WESTMINSTER.	OWENS COLL., MANCHESTER.	QUEEN'S COLL., BIRMINGHAM.*	LEEDS.	LIVERPOOL.	BRISTOL.*	NEWCASTLE.	SHEFFIELD.
Anatomy . .	i. £11 11s. ii. with 3 yrs. Pract. Anatomy, £16 16s.	1st c. £7 7s. subs. c. £22s.	i. £5 5s.	i. £6 6s.	i. £6 6s.	2 cs. ea. £5 5s.; 3, £2 12s. 6d.	i. £5 5s. ii. £8 8s.	i. £5 5s.	1 c. £4 4s. 2 c. £2 2s.
Demonst. and Dissections		3 mos. £5 5s. 6 mos. £8 8s.	6 mos. £3 3s. 3 mos. £2 2s.	i. £5 5s.	...	i. £3 3s.	...	...	Inc. in above.
Physiology . .	i. £8 8s. ii. £10 10s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £6 6s.	1 & 2 cs. each £5 5s.; 3, £2 12s. 6d.	i. £5 5s. ii. £8 8s.	i. £5 5s.	1 c. £3 3s. 2 c. £2 2s.
Practical Physiology	i. £8 8s. add. c. £2 2s.	c. £7 7s.; either division, £3 3s.	i. £5 5s.	...	i. £6 6s.	...	i. £3 3s. ii. £5 5s.	...	i. £3 3s.
Chemistry . .	i. £7 7s. ii. £9 9s.	1st c. £6 6s. subs. cs. £2 2s.	i. £3 10s. Org. i. £3 10s.	i. £5 5s.	i. £4 4s.	1 c. £5 5s.; 2 and 3, each £2 12s. 6d.	i. £5 5s. ii. £7 7s.	i. £5 5s.	...
Practical Chemistry	i. £5 5s. sec. c. £3 3s.	1 c. £4 4s.	i. £4 4s.	i. £4 4s.	i. £3 3s.	i. £4 4s.	i. £3 3s. ii. £5 5s.	...	i. £3 3s.
Botany . . .	i. £3 13s. 9d. ii. £5 5s.	1 c. £4 4s. 2 cs. £5 5s.	i. £2 12s. 6d.	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 and 3, each £2 2s.	i. £3 3s. ii. £5 5s.	i. £5 5s.	i. £3 3s.
Com. Anatomy	i. £6 6s. ii. £8 8s.	1 c. £3 3s. 2 cs. £5 5s.	i. £2 12s. 6d.	i. £3 3s.	i. £1 1s.	£2 per term; £3 the course	i. £4 4s.	...	...
Medicine . .	i. £9 9s. ii. £11 11s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £5 5s.	1 and 2 c. each £5 5s.; 3, £2 12s. 6d.	i. £5 5s. ii. £8 8s.	i. £5 5s.	1 c. £4 4s. 2 c. £2 2s.
Surgery . . .	i. £7 7s. ii. £8 8s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s.	i. £5 5s.	1 c. £5 5s. 2 & 3, ea. £1 1s.	i. £5 5s. ii. £8 8s.	i. £5 5s.	i. £4 4s.
Practical Surgery	i. £6 6s. sec. c. £4 4s.	1st c. £3 3s. subs. c. £2 2s.	i. £4 4s.	...	...	1 c. £4 4s.; 2 & 3, £2 2s.	i. £4 4s. ii. £6 6s.	...	i. £3 3s.
Surgical Path.	...	...	i. £4 4s.	...	...	...	...	...	...
Operative Surg.	i. £5 5s.	...	i. £4 4s.	...	...	...	...	...	...
Midwifery . .	i. £6 6s. ii. £7 7s.	1 c. £4 4s. 2 cs. £5 5s.	i. £4 4s. ii. £5 5s.	i. £5 5s.	i. £4 4s.	1 c. £5 5s.; 2 & 3, ea. £2 12s. 6d.	i. £4 4s. ii. £6 6s.	i. £5 5s.	i. £3 3s.
Pathology . .	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	...	i. £3 3s.	1 c. £3 3s.; 2 and 3, each £1 11s. 6d.	i. £3 3s. ii. £4 4s.	i. £5 5s.	...
Materia Medica	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 & 3, each £2 2s.	i. £4 4s. ii. £5 5s.	i. £5 5s.	i. £3 3s.
Pharmacy . .	...	...	i. £3 3s.	...	...	...	...	...	...
Forensic Medicine	i. £5 5s. ii. £6 6s.	1 c. £3 3s. 2 cs. £4 4s.	...	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 & 3, each £2 2s.	i. £3 3s. ii. £5 5s.	i. £5 5s.	i. £3 3s.
Med. Juris. and Hygiene	...	...	i. £4 4s.	...	...	...	...	...	...
Ophth. Surgery	i. £2 2s.	1 c. £1 1s.	i. £3 3s.	i. £3 3s.	...	1 c. £1 1s.	...	...	...
Dental Surgery	...	1 c. £2 2s.	...	i. £3 3s.	...	1 c. £3 3s.	...	...	...
Mental Dis.	...	1 c. £1 1s.	i. £1 11s. 6d.	...	...	...	...	...	...
Public Health	i. £2 2s.	...	...	...	...	...	...	...	...
Library . . .	...	£1 1s.	...	...	£1 1s.	i. 10s. 6d. ii. £1 1s.	£1 1s.	...	...
Hospital Practice	Med. and Surg. Perp. £36 15s. 1 yr. £21	Med. or Surg. 3 mos. £6 6s. 6 mos. £10 10s. Each subsequent 6 mos. £5 5s. 3 yrs. £24 3s.  Med. and Surg. 3 mos. £10 10s. 6 mos. £14 14s. Each subsequent 6 mos. £7 7s. 3 yrs. £36 15s.	Royal Infirm. Full per. £42; or 2 instal- ments, £22  Medical. 3 mos. £4 4s. 6 mos. £8 8s. 12 mo. £12 12s. Full period, £18 18s.  Surgical. 3 mos. £6 6s. 6 mos. £9 9s. 12 mo. £18 18s. Full p. £31 10s.	General and Queen's Hospitals. 4 yrs. £42, or in two equal sums 1 yr. £21 6 mos. £14	Infirmery. Med. or Surg. 1 win. £7 7s. 1 sum. £6 6s. 12 mo. £12 12s. 18 mo. £15 15s. 3 yrs. £21 Perp. £26 15s.	Royal Infirm. Perp. £42  Medical. 3 mos. £3 15s. 6 mos. £6 6s. 12 mos. £7 7s.  Surgical. 3 mos. £5 5s. 6 mos. £7 7s. 12 mo. £10	Royal Infirm. Medical. 6 mos. £8 1 yr. £15 18 mos. £20 Perp. £20  Surgical. 1 yr. £12 12s. 2 yrs. £21 3 yrs. £26 5s.  General Hos. Med. or Surg. 6 mos. £6 12 mos. £10 Perp. £25	Infirmery. 3 mos. £5 5s. 6 mos. £8 8s. 12 mo. £12 12s. Perp. £26 5s.; or 1st year £12 12s., 2nd yr. £10 10s., 3rd yr. £6 6s.; or 1st year £14 14s., 2nd year £12 12s.	Gen. Infirm., or Public Hos. sum. ses. £3 3s. win. ses. £6 6s.

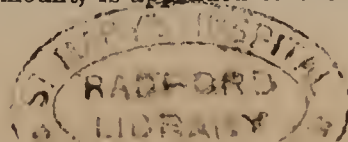
\* No returns have this year been received from these institutions.

We have endeavoured to make this table as complete and correct as possible, but from imperfect returns and deficient information, perfect accuracy cannot be vouched for.

Many classes which to outside students are chargeable in heavy sums are gratuitous to the regular students of the various schools.

Totals cannot here be given for the same reason, and because many classes are extra.

Information as to the mode of paying fees, and their amount, is appended to the notice of each school.





## ADVICE TO STUDENTS.

A CERTAIN distinguished living Professor, when asked whether he would not desire to inaugurate a new session of medical study with an introductory lecture, replied that he had nothing to say by way of introduction to those entering the profession that could not be expressed by the three words, "You *must* work." Work, and nothing but work, can pave the way to success in the profession; and although success may, through circumstances, be denied to some of those who have worked, on the other hand failure is absolutely certain to those who have idled.

The prospect, therefore, is at the outset clearly to be scanned by all who propose to climb the hill of medical study with a view to reaching the goal of success at its summit, and, difficult as the ascent appears, we have the disturbing thought in addition that the amount of labour required to accomplish it is ever tending to increase, whilst the allotted time remains as short as ever.

Let it then be clearly understood by all aspirants for success in Medicine that work, and work alone, can bring about fulfilment of their desire. But, with this understanding at the outset, we have to consider in what way the work may best be directed so as to produce the best results in the short four years that are allowed for preparation for the great event of his life, which converts the irresponsible boy into the responsible man, the medical student into the qualified student of Medicine, viz., the passing of his qualifying examination. In most of the too numerous schools of Medicine, prospectuses containing advice to junior and senior students are published, which supply them with all the details of work that the customs of the various hospitals have established; and in every instance they may with safety abide by the directions and advice contained therein. Thus, the commencing student will find out when it is that the various courses of study, lectures, demonstrations, practical work, etc., may best be undertaken, and in what order. Up to a certain point in his course of medical study he must go through a definite course of instruction, be his special inclinations what they may. His difficulty, however, is to distinguish the wheat in such a course from the chaff, to separate in his mind the fact which he must learn and know from the illustration or experiment employed to convey it. As he advances in his study he will learn to his cost that unless he can so distinguish and separate he will find himself compelled to go over and over again the weary round of which he had thought himself complete master, and so be occupying with this recapitulation the very time in which he should be employing his previous knowledge and experience to gain still more. Unfortunately, until they come to be combined with higher and wider knowledge, the cardinal facts of Chemistry, Anatomy, and Physiology must be regarded as dry, and, to render them more palatable, teachers and writers must resort to some means of maintaining the learner's interest, while they convey to him the information that he needs, almost without his discovering that he has imbibed it. The device, however, is a dangerous one, and in the case of Physiology too often leads to a superficial knowledge of a vast range of ingenious experiments, to the complete exclusion of the facts and theories which such experiments were destined to teach or to illustrate. But it is exactly these cardinal facts that are the backbone of knowledge, whether it be required for reproduction over an examination-table, or for practical use at the bedside. In almost all the qualifying examinations, and still more in the examinations for degrees at the older universities, the knowledge which the examiners desire to find in the possession of the candidates is a sound know-

ledge of the well-ascertained facts, whether of Medicine and Surgery, or of the preliminary sciences with which medical men are required to make themselves acquainted. Amongst students this truth is too little recognised. The occasional introduction of debatable matter into the questions asked by certain examining bodies has had a pernicious effect in establishing in the student mind a horrible foreboding that he may be required to be acquainted with the views of Professor So-and-So in opposition to those expressed by the learned Doctor von Somebody; and a terrible amount of valuable working time is lost in the temporary acquirement of this, to him, wholly useless information. As far as the higher examinations are concerned, the student may rest assured that if he can confidently give to the examiners a straightforward answer, conveying nothing but facts, he may look forward with equal confidence to the appearance of his name in a list of successful candidates, ranked in first or second class, as the case may be.

Nor is it alone at the critical time of examination that this confident knowledge of simple, well-ascertained facts must command success. In medical and surgical practice, whether in private or in the bustling work of hospitals, the successful worker is he who has attained to the most complete knowledge of the groundwork of his profession. Without a good foundation neither buildings nor knowledge can stand the stress of weather which time will bring to them. A house built on too narrow a foundation may stand for a time, but it cannot be added to without the necessity of props and supports to supply the place of the broad and solid basis which it lacks; and, in like manner, a knowledge of Medicine and Surgery founded on an insufficient basis of physiological and anatomical knowledge is but a tottering contrivance after all, and cannot be added to with safety, nor indeed used with confidence, without some such artificial means of support as may be afforded by constant reference to the handbooks, digests, and vade-mecums with which our profession is so liberally supplied. The acquirement, then, of the A, B, C of professional knowledge, the leading facts upon which the whole of after-knowledge is based, becomes the really important consideration for the commencing student. How can it best be acquired? To become acquainted with the recognised text-books in each subject would occupy too much time, and would, even if feasible, make an unreasonable demand upon the partly trained memory, with, in all probability, disastrous results. But in some departments of study it is necessary that the larger text-books should be used, in preference to the numerous "Aids to (? Idle) Students" in circulation. More especially in Anatomy and Physiology the student should beware of the fascination of short cuts and easy paths. The hard-beaten track, uninteresting as it may appear at first, is the only one to be trodden with safety in these subjects. But in Anatomy neither text-books nor waistcoat-pocket "aids" are of any avail without the steady and persevering work at dissection, doubly useful as it is in teaching the practical knowledge of the most practical of sciences, and in educating the hand to guide the knife amongst the delicate structures with which it may have to deal, in days to come, with greater delicacy still.

A common thought amongst students is this—that, having once "got through" the period of preliminary study, work in the wards and out-patient rooms will be not only interesting but easy. That it will be interesting there can be no doubt; but all students may take this truth to heart, that it will be easy or difficult to them in exact proportion to the amount of real knowledge which they possess of the preliminary sciences, which in the study and treatment of disease they have to be constantly, and often unconsciously, employing.



With the beginning of the second part of medical study the question constantly arises, what book or books shall be read; and different courses of action are often adopted, with equally satisfactory results. Let it be remembered that for practical use only the *accepted facts* of medical or surgical science are required. Hence any text-book written by an author who commands general respect may be safely followed, even though in small points or in matters of theory his views may not coincide with those of other text-book writers of the day. But in thus accepting the teachings of a single author, and pinning faith to them, it must be borne in mind that more than a superficial knowledge of them must be acquired.

Of the many systems of study in vogue, there are few more really useful than that of abstracting a work by short notes, systematically following out each subject in order. The process has the double effect of fixing the abstracted matter in the note-book of the mind, as well as in that of the pocket, and, when completed, it forms a useful "abridged edition" of the larger work, edited by its happy possessor, and forming a pleasant memorial of good work well done. The sound knowledge thus collected forms, with the previously acquired foundation of the preliminary sciences, a solid structure, to which large and elaborate additions of special knowledge may be made without fear of endangering the safety of the whole.

Of late years this question of the study of special subjects has become of serious importance. Specialisms are multiplying, and examinations are gradually embracing them, and students have the additional incubus thrown upon their preliminary studies that these also have to be provided for. Experience shows every day that special branches of study are learned with far greater ease, accuracy, and rapidity by the senior students, and especially by those who have obtained good preliminary knowledge. Such an experience suggests the view that the study of special subjects should, at the earliest, only be taken up during the last year of studentship, and many of them, making no very great demand upon time, might be taken during the period of senior clerkship or dressership. As practical workers who have to get through a large amount of work in a short time, medical students must look facts in the face, and consider what does or does not "pay" in the methods which they may seek to adopt. We would only give them this piece of advice—it undoubtedly does "pay" to work steadily, systematically, and not for too long a time continuously. It pays to work at the preliminary subjects till they are thoroughly mastered. It does not pay to attempt to acquire a knowledge of the higher branches of study, and especially the special branches, until the earlier part of the prescribed course of study can be left, with the confident feeling that it has become the absolute property of its possessor.

TABLE SHOWING THE DAYS AND HOURS OF THE INTRODUCTORY LECTURES AT THE METROPOLITAN MEDICAL SCHOOLS.

Hospital.	Lecturer.	Date and hour.
St. George's.....	Mr. W. H. Bennett...	Oct. 1, 4 p.m.
King's College.....	Dr. H. W. Acland ...	" 2, 4 p.m.
London.....	Professor Huxley ...	" 9, 8 p.m.
St. Mary's .....	Dr. H. Jones .....	" 1, 3.30 p.m.
Middlesex.....	Mr. A. P. Gould .....	" 1, 3 p.m.
St. Thomas's .....	Mr. Le Gros Clark ...	" 1, 3 p.m.
University College...	Professor J. Tweedy ..	" 1, 4 p.m.
Westminster .....	Mr. Boyce Barrow ...	" 1, 3 p.m.

## CHANGES IN THE STAFFS OF LONDON HOSPITALS AND SCHOOLS.

At *St. Bartholomew's Hospital*, Dr. Dyce Duckworth has become Physician, in place of Dr. Southey, resigned. The vacancy amongst the Assistant-Physicians has not yet been filled up. Drs. Herringham, Steavenson, and King have been elected Casualty Physicians, and Dr. Steavenson has been placed in charge of the Electrical Department. The Lecturership on Forensic Medicine is vacant through the resignation of Dr. Southey.

At the *Charing-cross Hospital*, Dr. Frederick Willcocks has been elected Assistant-Physician in place of Dr. Mitchell Bruce, whose election to the post of Physician we noticed last year; and there is now a vacancy for an Assistant-Physician through the resignation of Dr. Colquhoun. Dr. Amand Routh has been elected to the newly created post of Assistant-Physician Accoucheur. In the School, Dr. Mitchell Bruce succeeds Mr. Hird as Dean, and Mr. James Cantlie is Sub-Dean; Dr. Willcocks lectures on Botany in place of Dr. Colquhoun, and Mr. J. G. Garson on Comparative Anatomy in place of the late Mr. W. A. Forbes. The post of Demonstrator of Morbid Anatomy is vacant.

At *St. George's Hospital*, Dr. Isambard Owen has succeeded Dr. Herbert Watney as Assistant-Physician. In the School there have been several changes: Mr. Ross has been appointed Demonstrator of Morbid Anatomy in place of Dr. Owen; Dr. Ewart takes the class in Physiology and Minute Anatomy; Dr. Champneys is joint-Lecturer with Dr. Barnes on Midwifery and the Diseases of Women and Children; and the Lecturership on Comparative Anatomy is vacant.

At *Guy's Hospital*, Dr. Galabin has become Obstetric Physician, Dr. Braxton Hicks having retired; and Dr. Horrocks has been elected Assistant Obstetric Physician. In the School, Mr. Groves lectures on Chemistry with Dr. Stevenson, and Dr. Galabin succeeds Dr. Hicks as Lecturer on Midwifery. Dr. Hale White and Mr. J. A. Lane have been appointed Demonstrators of Anatomy.

At *King's College Hospital* there have been no changes either in the Hospital staff or amongst the lecturers and teachers in the School.

At the *London Hospital*, Mr. Jonathan Hutchinson, F.R.S., has been appointed Consulting Surgeon, and Mr. McCarthy is now full Surgeon; Mr. Hurry Fenwick has been elected Assistant-Surgeon. Dr. Herman is Obstetric Physician in place of the late Dr. Palfrey, and he has also succeeded to the Lecturership on Midwifery and the Diseases of Women. There is a vacancy for an Assistant Obstetric Physician. Dr. Sansom lectures on Medical Jurisprudence and Public Health; and the post of teacher of Practical Chemistry is vacant.

At *St. Mary's Hospital*, Dr. Cheadle has become Physician, and Dr. S. Phillips Assistant Physician with charge of out-patients. Mr. Henry Juler has been appointed Assistant Ophthalmic Surgeon. In the School, Dr. Nall has been elected teacher of Practical Physiology, and Mr. Pepper teacher of Practical Surgery. Mr. George Field is now Dean of the School in place of Dr. Shepherd.

At the *Middlesex Hospital*, Mr. A. Pearce Gould has succeeded the late Mr. R. W. Lyell as Assistant-Surgeon. In the School, Mr. Sutton lectures on Comparative Anatomy in place of Mr. Hensman.

At *St. Thomas's Hospital*, Mr. B. Pitts has been elected Assistant-Surgeon, Mr. Ranger has succeeded Mr. Elliott as Dental Surgeon, and Mr. C. E. Truman has been appointed Assistant Dental Surgeon. There have been no changes of importance in the School.



At *University College Hospital*, Mr. S. J. Hutchinson succeeds Mr. G. A. Ibbetson as Dental-Surgeon. In *University College*, Mr. Schäfer, lately Assistant-Professor, has been appointed Jodrell Professor of Physiology in place of Dr. Burdon Sanderson, elected to the new Waynflete Chair of Physiology in the University of Oxford; and Dr. J. A. McWilliam succeeds Mr. Schäfer as Assistant-Professor and Demonstrator; and Mr. Hutchinson lectures on Dental Surgery in place of Mr. Ibbetson.

At the *Westminster Hospital*, Dr. Fincham has been made Consulting Physician, Dr. H. Donkin succeeds him as Physician, and Dr. Murrell has been elected to the vacant Assistant-Physicianship; Mr. Boyce Barrow has succeeded Mr. Gould as Assistant-Surgeon; Mr. Morton Smale has been appointed one of the Dental Surgeons, and Dr. T. Colcott Fox has taken charge of the Skin Department. In the School, Mr. Black lectures on Anatomy in place of Mr. Gould, and Dr. Heneage Gibbes lectures on Physiology in succession to Dr. Allchin. Dr. de Havilland Hall is a joint-Lecturer with Dr. Dupré on Forensic Medicine. Dr. Hall also succeeds Dr. Allchin as Dean of the School, and Dr. Heneage Gibbes has been appointed Sub-Dean.

## DENTAL SURGERY.

### REGULATIONS RELATING TO THE DIPLOMA IN DENTAL SURGERY.

#### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

##### EDUCATION.

CANDIDATES are required to produce the following certificates:—

1. Of being twenty-one years of age.
2. Of having been engaged during four years in the acquirement of professional knowledge.
3. Of having attended, at a school or schools recognised by this College, not less than one of each of the following courses of lectures, delivered by lecturers recognised by this College, namely:—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.
4. Of having attended a second winter course of lectures on Anatomy, or a course of not less than twenty lectures on the Anatomy of the Head and Neck, delivered by lecturers recognised by this College.
5. Of having performed dissections at a recognised school during not less than nine months.
6. Of having completed a course of chemical manipulation, under the superintendence of a teacher or lecturer recognised by this College.
7. Of having attended, at a recognised hospital or hospitals in the United Kingdom, the practice of Surgery and clinical lectures on Surgery during two winter sessions.
8. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects, viz.:—Dental Anatomy and Physiology (human and comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by lecturers recognised by this College.
9. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. In the cases of qualified surgeons, evidence of a period of not less than two instead of three years of such instruction will be sufficient.
10. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years.

[*Note*.—All candidates who shall commence their professional education on or after July 22, 1878, will, in addition to the certificates enumerated in the foregoing clauses, be required to produce a certificate of having, prior to such commencement, passed a preliminary examination in general knowledge recognised by the General Medical Council, all inquiries with respect to which should be addressed to the Registrar of that Council, 299, Oxford-street, London, W.]

Candidates who were in practice as dentists, or who had commenced their education as dentists prior to September, 1859—the date of the Charter—and who are unable to produce the certificates required by the foregoing regulations, shall

furnish the Board of Examiners with a certificate of moral and professional character, signed by two members of this College, together with answers to the following inquiries:—Name, age, and professional address. If in practice as a Dentist, the date of the commencement thereof. Whether member or licentiate of any College of Physicians or Surgeons of the United Kingdom; and, if so, of what College. Whether graduate of any University in the United Kingdom; and, if so, of what University; and whether graduate in Arts or Medicine. The date or dates of any such diploma, licence, or degree. Whether member of any learned or scientific society; and, if so, of what. Whether his practice as a Dentist is carried on in connexion with any other business; and, if so, with what business. Whether since July 22, 1876, he has employed advertisements or public notices of any kind in connexion with the practice of his profession. The particulars of professional education, medical or special. The Board of Examiners will determine whether the evidence of character and education produced by a candidate be such as to entitle him to examination.

N.B.—In the case of candidates in practice or educated in Scotland or Ireland, the certificate of moral and professional character may be signed by two Licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland, as the case may be.

##### EXAMINATION.

The examination is partly written and partly oral. The written examination comprises general Anatomy and Physiology, and general Pathology and Surgery, with especial reference to the practice of the dental profession. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, will only have to answer those questions set by the section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination will be examined only by that section. A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine. Examinations will be held in February, June, and October. The fee for the diploma is £10 10s., over and above any stamp duty.

[*Note*.—A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma.]

#### ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

##### REGULATIONS.

Every candidate for the Dental Diploma must have attended the general lectures and courses of instruction required, at a university or an established medical school, recognised by the College as qualifying for the diploma in Surgery. The special courses of instruction may have been followed in a recognised dental hospital or school, or by teachers recognised by the College.

Candidates must produce evidence of having attained the age of twenty-one years, and will require to produce a certificate of having passed the preliminary examination in general education required for the ordinary licence in Surgery, or an examination equivalent to this, and recognised by the General Medical Council,—except in the case of candidates who shall have commenced their professional education previous to August 1, 1878.

Candidates will also be required to produce certificates of having been engaged during four years in the acquirement of professional knowledge, and of having been during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a practitioner registered under this Act.

The following lectures and other courses of instruction must have been attended by candidates, and the number of lectures in each of the general courses must correspond with those required for the surgical diploma of the College:—Anatomy, one winter course; Dissection and Demonstrations, nine months, or Dissection, nine months, and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, one winter



course; Surgery, one winter course; Medicine, one winter course; Materia Medica, one course of three months; Practical Chemistry and Metallurgy, one course of three months; clinical instruction in Surgery at a recognised hospital, one course of six months, or two courses of three months.

In addition to these, candidates will require to have attended the following special courses of lectures and instruction:—Dental Anatomy and Physiology, Dental Surgery and Pathology, Dental Mechanics, one course of each; and produce evidence of two years' attendance at a dental hospital, or the dental department of a general hospital recognised by the College.

Candidates who are licentiates of this College, or who may be registered medical practitioners, will be required to produce certificates of attendance on the special subjects only, and will be examined in these only for the Dental Diploma.

#### EXAMINATIONS.

The Dental Examinations shall be both written and oral, and be conducted in the same manner as the ordinary surgical examinations. The examinations shall consist of two separate sittings, and be held subsequent to each period of the ordinary examinations, on such days as the College may appoint. Candidates must apply to the Secretary of the College on or before the Saturday preceding the ordinary examinations, and must then produce all the required certificates of having passed the preliminary examination, and of having attended the lectures and other prescribed courses of instruction.

The fee for the dental diploma shall be ten guineas.

#### EXAMINATIONS SINE CURRICULO.

Candidates who were in practice before August 1, 1878, or those not in practice but who had commenced their apprenticeship as Dentists before August 1, 1875, and who are unable to furnish the Board of Examiners with the certificates of lectures and hospital attendance required by the foregoing regulations, shall fill in the schedule of application as follows:—

1. Full name, age, and address of candidate.
2. Certificate of moral and professional character, signed by two registered medical practitioners.
3. The date of commencing practice or apprenticeship as a Dentist, and whether, if in practice, such practice has been carried on in conjunction with any other business, and if so, with what business.
4. Whether he has any degree or diploma in Medicine or Surgery, and if so, from what College or University, or other body, and at what time it was obtained.
5. The particulars of professional education.

The President's Council shall, on such information being afforded them, determine whether or not the candidate may be admitted to examination for the Dental Diploma, and such examination shall, with the exception of the preliminary examination, and the exemptions in favour of registered medical practitioners, as before explained, be passed on the same subjects and in the same manner as is required for other candidates, and will confer the same privileges.

### DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL.

#### HOSPITAL STAFF.

Consulting Physician—Sir J. Risdon Bennett, M.D.

Consulting Surgeon—Mr. Christopher Heath.

Consulting Dental Surgeons—Mr. S. Cartwright and Mr. John Tomes.

#### Dental Surgeons.

Mr. D. Hepburn.	Mr. Hutchinson.
Mr. R. Woodhouse.	Mr. Moon.
Mr. Gregson.	Mr. A. Hill.

#### Assistant Dental Surgeons.

Mr. F. Canton.	Mr. G. Parkinson.
Mr. A. S. Underwood.	Mr. Storer Bennett.
Mr. Claude Rogers.	Mr. Truman.

Chloroformists—Mr. Braine, Mr. Bailey, Mr. T. Bird, and Mr. Mills.

Medical Tutor—Mr. Morton Smale.

Demonstrators—Mr. John Ackery and Mr. W. Hern.

House-Surgeon—Mr. J. O. Butcher.

Assistant House-Surgeon—Mr. Pillin.

The winter session will commence on Monday, October 1.

#### LECTURES.—WINTER SESSION.

Mechanical Dentistry—Dr. Walker.

#### LECTURES.—SUMMER SESSION.

Dental Surgery and Pathology—Mr. Alfred Coleman.

Dental Anatomy and Physiology (Human and Comparative)—Mr. C. S. Tomes.

#### SCHOLARSHIPS AND PRIZES.

The Saunders Scholarship of £20 per annum, and Prizes, are open for competition.

#### FEES.

Fee for special lectures required by the curriculum, £15 15s.; fee for two years' hospital practice required by the curriculum, £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a general hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

For further particulars, apply to Mr. T. F. Ken Underwood, Dean.

### DEGREES IN SCIENCE IN THE DEPARTMENT OF PUBLIC HEALTH.

#### UNIVERSITY OF CAMBRIDGE.

#### EXAMINATION IN STATE MEDICINE.

An examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge, beginning on the first Tuesday in October, and ending on the following Friday.

Any person whose name is on the Medical Register of the United Kingdom may present himself for this examination provided he is in his twenty-fourth year. The examination will be in two parts, and will be oral and practical as well as in writing.

Part I. will comprise:—Physics and Chemistry. The principles of Chemistry, and methods of analysis with especial reference to analyses of air and water. Application of the microscope. The laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general. Statistical methods.

Part II. will comprise:—Laws of the realm relating to Public Health. Origin, propagation, pathology, and prevention of epidemic and infectious diseases. Effects of overcrowding, vitiated air, impure water, and bad or insufficient food. Unhealthy occupations, and the diseases to which they give rise. Water-supply and drainage in reference to health. Nuisances injurious to health. Distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

Candidates may present themselves for either part separately, or for both together, at their option; but the result of the examination in the case of any candidate will not be published until he has passed to the satisfaction of the examiners in both parts. Every candidate will be required to pay a fee of £4 4s. before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

All applications for admission to this examination, or for information respecting it, should be addressed to Professor Livinge, Cambridge.

Candidates who desire to present themselves for examination in October next must send in their applications and transmit the fees on or before September 28.

#### UNIVERSITY OF LONDON.

#### EXAMINATION IN SUBJECTS RELATING TO PUBLIC HEALTH.

A special examination shall be held once in every year in subjects relating to Public Health, and shall commence on the second Monday in December.

No candidate shall be admitted to this examination unless he shall have passed the second examination for the degree of Bachelor of Medicine in this University at least one year previously; nor unless he shall have given notice of his intention to the Registrar at least two calendar months before the commencement of the examination.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—

1. Chemistry and Microscopy, as regards the examination of air, water, and food.
2. Meteorology, as regards general knowledge of meteorological conditions, and the reading and correction of instruments.
3. Geology, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply.
4. Physics and Sanitary Apparatus. The laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation



(for sanitary purposes) to the construction of dwellings, and to the principles of warming, ventilation, drainage and water-supply, and to forms of apparatus for these and other sanitary uses. And the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances.

5. Vital Statistics, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life. Present amount of mortality at the various ages, and its causes in different classes and communities. Practical statistics of armies, navies, civil professions, asylums, hospitals, dispensaries, lying-in establishments, prisons, indoor and outdoor paupers, friendly societies, sick clubs, medical and surgical practice, towns.

6. Hygiene, including the causation and prevention of disease, in which branch of examination reference shall be had to such matters as the following:—

Parentage, as influencing the individual expectation of health; temperaments; morbid diatheses; congenital diseases and malformations; effects of close inter-breeding. Special liabilities of the health at particular periods of life; physical regimen of different ages. Earth and climate and changes of season in their bearing on the health of populations; dampness of soil; malaria. Conditions of healthy nourishment: dietaries and dietetic habits; stimulants and narcotics in popular use; dietetic privation, excesses, and errors, as respectively causing disease; drinking-water, and the conditions which make water unfit for drinking; adulterations of food. Conditions of healthy lodgment: ventilation and warming, and the removal of refuse-matters, in their respective relations to health; filth as a cause of disease; sanitary regimen of towns and villages; "nuisances" (as defined by law) with regard to the sanitary bearing and the removal of each; trade processes causing offensive effluvia; common lodging-houses and tenement houses. Conditions of healthy activity: work, over-work, rest, and recreation; occupations of different sorts in relation to the health of persons engaged in them—e.g., factory work in general, occupations which produce irritative lung-disease, occupations which promote heart-disease, occupations which deal with poisons, etc. Hygiene of particular establishments and particular classes of population: factories and workplaces; schools; workhouses; asylums; hospitals; prisons. Disease as distributed in England: classifications of disease for various purposes of medical inquiry; excesses of particular diseases and injuries at particular places and at particular times. Particular diseases, as regards their intimate nature, causation, and preventability: e.g., enteric fever, cholera, typhus, small-pox, scarlatina, diphtheria, erysipelas, pyæmia, tubercular diseases, rheumatism, ague, cretinism, ophthalmia, porrigio, venereal diseases, scurvy, ergotism, leprosy, insanity. Processes of contagion in different diseases; incubation in each case; particular dangers of infection—at schools, workplaces, etc., and from laundries, dairies, etc. Disinfectants and establishments for disinfection. Quarantine. Hospitals for infectious disease. Conveyance of the sick. Vaccination: existing knowledge as to its protectiveness; revaccination; precautions which vaccination requires; arrangements for public vaccination in town and country; natural cow-pox. Prostitution as regards the public health. Diseases of domestic animals in relation to the health of man: rabies; farcy and glanders; anthrax; parasites, especially trichina and the tæniadæ; apthæ; tubercle; meat and milk of diseased animals. Diseases of the vegetable kingdom, and failures of vegetable crops, in relation to the health of man; famine-diseases. Poisons in manufacture and commercial and domestic use—e.g., arsenic, lead, phosphorus, mercury; poisonous pigments.

7. Sanitary Law, as regards the leading purposes of the following statutes, and the constitution and modes of procedure of the respective authorities, and any existing orders, regulations, or model by-laws of the Local Government Board in sanitary matters. The Public Health Act, 1875. The Vaccination Acts. The Rivers' Pollution Prevention Act, 1876. The Sale of Food and Drugs Act, 1875. The Artisans and Labourers' Dwellings Improvement Act, 1875. The Acts regulating the medical profession. The Acts regulating the practice of pharmacy. The Acts relating to factories and workplaces, and to the detention and care of lunatics.

#### UNIVERSITY OF DURHAM.

##### STATE MEDICINE.

The Warden and Senate of the University of Durham, in recognition of the importance of the fact that Medical Officers of Health, or those seeking appointments as such, should possess a proof of their special acquirements, have instituted examinations in State Medicine, by which the successful candidates will be entitled to receive a certificate of proficiency in Sanitary Science.

For the certificate of proficiency in Sanitary Science it is required:—1. That the candidate shall be a registered medical practitioner. 2. That the candidate shall have attended one course of lectures on Public Health at the College of Medicine, Newcastle-upon-Tyne, extending over one winter session. 3. That the candidate shall pass an examination on the following subjects:—

1. Physics.—Laws of light, heat, hydro-dynamics, and pneumatics.

2. Chemistry.—As applied to the detection of noxious gases and atmospheric impurities; analysis of air, water, and food.

3. Sanitary Legislation.—Knowledge of the Acts of Parliament in force for the preservation and protection of health.

4. Vital Statistics.—Rates of births, deaths, and marriages; methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom.

5. Meteorology, Climatology, and Geographical Distribution of Diseases in the United Kingdom.

6. Sanitary Medicine, more especially in relation to epidemic, endemic, epizootic, and communicable diseases; diseases attributable to heat, cold, or damp; insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity; preventive measures—vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances.

7. Practical Hygiene, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply and refuse-disposal of dwellings, schools, hospitals, and other buildings of public or private resort; action with respect to nuisances and outbreaks of disease. Other duties of a Medical Officer of Health.

The examination shall be by written papers, and practical and *visà voce* examination, and will commence on October 8, 1883, and on April 21, 1884.

In the practical examination the candidate will be required (1) to report on the condition of some actual locality; (2) to analyse liquids and gases; (3) to explain the construction and use of instruments used in Meteorology; (4) to make microscopic examinations. The fee for the examination will be £5 5s.

A special certificate of proficiency in Sanitary Science may be obtained by Medical Officers of Health of five years' standing who have obtained a registrable qualification before January 1, 1878, on condition that the candidate is not under thirty years of age, that he passes the examination for the certificate detailed above, and that he writes an essay on some practical sanitary subject, upon which he may also be examined. The fee will be £10 10s.

#### UNIVERSITY OF EDINBURGH.

In consequence of the great demand which now exists for Medical Officers of Health, and the importance to the public of some means of ascertaining that members of the medical profession have specially studied the subject of Public Health, Science Degrees in the Department of Public Health have been instituted by the University of Edinburgh under the following conditions:—

1. Candidates for graduation in Science in the Department of Public Health must be graduates in Medicine of a British University, or of such foreign or colonial Universities as may be specially recognised by the University Court.

2. He must be matriculated for the year in which he appears for examination or graduation.

3. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations.

4. There are two examinations for the degree of Bachelor of Science in the Department of Public Health. Candidates who have passed the first examination may proceed to the second at the next or at any period fixed for this examination.

5. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher.

6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court.

7. The subjects of the examinations for the degree of Bachelor of Science in the Department of Public Health are as follows:—

##### FIRST EXAMINATION.

1. Chemistry.—Qualitative analysis; analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents; detection, chemical and microscopical, of adulterations in articles of food and drink, and in drugs: practical examination, including at least two analytical researches.



2. *Physics*.—Elements of experimental physics; hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in reference to warming and ventilation; meteorology, and method of making meteorological observations.

An oral examination and an examination in Practical Chemistry in the laboratory will take place a few days after the written examination.

#### SECOND EXAMINATION.

1. *Medicine*.—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including pathological changes.

2. *Practical Sanitation*.—Duties of a Health Officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries; nuisances from manufactories, etc.; bad or insufficient supplies of food; outbreaks of zymotic diseases; quarantine; disinfectants and deodorisers; construction of permanent and temporary hospitals.

3. *Sanitary Law and Vital Statistics*.—Knowledge of the leading sanitary Acts of Parliament. Knowledge of statistical methods and data in reference to population, births, marriages, and deaths.

4. *Mensuration and Mechanical Drawing*.—Plans and sections of public and private buildings, mines, waterworks, and sewers. The candidate will be expected to make figured sketches from models, and to have such a knowledge of mechanical drawing as will enable him fully to understand engineering plans, sections, and elevations.

Every candidate is required before graduation to pay the registration fee (£1) as a member of the General Council of the University, now made compulsory by Act of Parliament.

The written examinations will take place in October, 1883, and March, 1884. Candidates who intend to present themselves for examination are required to lodge with the Secretary of the Senatus proof of their being eligible, and to pay the fee on or before September 28, 1883, or March 14, 1884.

#### DOCTOR OF SCIENCE.

A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on presenting a thesis on some subject embraced in the Department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the examiners.

The candidate for the degree of D.Sc. must lodge his thesis with the Dean of the Medical Faculty on or before January 31 in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the various publications quoted, so that due verification may be facilitated.

The fees for the degrees in Science in the Department of Public Health shall be—For the First B.Sc. in Public Health examination, £5 5s.; for the Second B.Sc. in Public Health examination, £5 5s.; for the degree of D.Sc. in Public Health £5 5s.; Registration fee, £1—total, £16 15s.

The following are recommended as books to be studied in preparation for the above examinations:—E. Parkes' "Practical Hygiene"; George Wilson's "Handbook of Hygiene"; Edwd. Smith's "Manual for Public Officers of Health" and "Handbook for Inspectors of Nuisances"; Michael, Corfield, and Wanklyn's "Manual of Public Health," edited by E. Hart; Eassie's "Healthy Houses"; Baldwin Latham's "Sanitary Engineering"; Fleeming Jenkin's "Healthy Houses"; Henry Law's "Rudiments of Civil Engineering"; George Monro's "The Public Health (Scotland) Act"; Alex. Buchan's "Introductory Text-book of Meteorology."

#### UNIVERSITY OF GLASGOW.

##### THE QUALIFICATION IN PUBLIC HEALTH.

A special examination will be held once in every year in subjects relating to Public Health, and will commence on the

second Tuesday in April. The examination will consist of two divisions, viz.:—First Division, embracing Physics, Chemistry, Meteorology, Geographical Distribution of Diseases. Second Division, embracing State Medicine, Sanitary Law, Vital Statistics. Fee for each division of the examination, £4 4s.

#### ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

##### GENERAL REGULATIONS.

Candidates shall be already on the Medical Register, and be entered there as possessing a qualification in Medicine. Candidates shall not, in the meantime, be required to attend any special courses of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. Candidates shall be subjected to two examinations. Such examinations may be taken simultaneously, or with an interval not exceeding twelve months. The examinations shall be written, oral, and practical. The examinations shall be held in the Physicians' Hall, or elsewhere if found more convenient. Rejected candidates shall not be admitted for re-examination till after the expiry of six months. Fees will not be returned, except in the case mentioned in the paragraph relating to fees given below.

##### EXAMINATIONS.

I. The First Examination shall embrace—1. Physics: Especially pneumatics, hydrostatics, hydraulics, and engineering in relation to sanitary operations, including a knowledge of architectural and other plans, sections, etc. 2. Chemistry: Especially analysis of air, water, food, including the biology of putrefaction and allied processes. 3. Meteorology: Including climate, topographical and seasonal influences in relation to health and disease.

II. The Second Examination shall embrace—1. Epidemiology and Endemiology: Including the corresponding departments in the diseases of animals and plants; contagious diseases; diseases of periods of life, professions, trades, seasons, and climates. 2. Practical Hygiene: Duties of a health officer; food; water-supply; sewerage and drainage; construction of hospitals, public buildings, dwellings; manufactories; cemeteries; nuisances. 3. Sanitary Law and Vital Statistics.

Meetings for both examinations shall be held annually in April and October. The first examination shall be held on the second Tuesday of the month, and shall occupy one day; the second examination on the immediately succeeding Wednesday of the same week, and shall occupy one day. Candidates may enter for both examinations in the same week, or for one only. The examinations must be passed in their order, first and second. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate remitted at his second examination will be allowed to come up again after a further period of six months; but if he then fail to pass, he will be required again to undergo the first as well as the second examination before obtaining the certificate.

##### FEES.

No one shall be recognised as a candidate till he has paid the fee for the first examination. The fees for examinations must be paid at least a week before the day of examination. The whole charges by the College for the certificate amount to £10 10s. The fee for the first examination is £3 3s.; the fee for the second examination is £3 3s.; the fee payable before receiving the certificate is £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has offered himself for both examinations fail to pass the first, he shall not be allowed to present himself for the second, and his fee for the second shall be returned to him.

#### ROYAL UNIVERSITY OF IRELAND.

##### THE DIPLOMA IN SANITARY SCIENCE.

This diploma will be conferred only on graduates in Medicine of the University.

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previous to the examination.

The examination will embrace the following subjects:—Climate: A general knowledge of meteorological conditions;



the reading and correction of instruments, and tabulating the results of meteorological observations. Chemistry: Constitution of the atmosphere; pure and impure waters; food. Geology: The character and structure of rocks with reference to water-supply and drainage. Physics: Laws of heat; mechanics, pneumatics, hydrostatics, and hydraulics, or sanitary engineering. The construction of dwellings, barracks, hospitals, schools, factories, etc., in accordance with the principles of warming, ventilation, drainage, water-supply, etc. Vital Statistics. Hygiene, including the causation and prevention of disease. Sanitary Law.

The examination in Chemistry will include a practical part on the chemical and microscopical examination of air, water, food, poisonous substances used in manufactures, etc.

The examination in Physics will embrace the reading of plans, sections, scales, etc., in connexion with buildings, sanitary constructions, etc.

#### UNIVERSITY OF DUBLIN.

Doctors of Medicine, or graduates in Medicine and Surgery, who wish to obtain from the University a certificate in State Medicine can do so on passing an examination in a limited course of the following subjects:—1. Law; 2. Engineering; 3. Morbid Anatomy; 4. Vital and Sanitary Statistics; 5. Chemistry; 6. Meteorology; 7. Medical Jurisprudence; 8. Hygiene. Candidates must send in their names to the Medical Registrar at the least a week before the first day of examination.

#### KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

##### THE CERTIFICATE IN SANITARY SCIENCE.

Every candidate for the certificate in Sanitary Science must be a Licentiate in Medicine of the College, and must return his name to the Registrar of the College a week before the examination, and lodge with him a testimonial of character from a Fellow or Member of the College, or from a Fellow of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin. The examination comprises the following subjects:—1. Etiology and Prevention of Disease: epidemiology; infection; hereditary influence; accommodation and conveyance of the sick; hospitals, and their management. 2. Engineering: including hospital and house construction; sewage; drainage; ventilation; water supply. 3. Law: The Acts relating to public health; duties of health officers. 4. Chemistry: with special reference to air, water, and food. 5. *a.* Meteorology and Climatology; *b.* Vital Statistics.

Stated examinations for the certificates in Sanitary Science are held quarterly on the Thursday and Friday following the first Friday of the months of January, April, July, and October.

The fee for the examination is £5 5s.

#### PHARMACEUTICAL CHEMISTRY.

##### PHARMACEUTICAL SOCIETY OF GREAT BRITAIN: SCHOOL OF PHARMACY.

The session will commence on October 1, 1883, and extend to July 27, 1884.

Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 1. The course consists of sixty lectures, comprising an exposition of the leading principles and doctrines of the science of Chemistry, and of those branches of allied physical science, the applications of which are involved in the highest qualifications required for the practice of Pharmacy. There will be two of these courses during the session—the course which commences in October and ends in February being repeated, with additions, in the following five months. Each course will be complete in itself, and will include a description of all the most important chemical and Galenical preparations used in medicine, which will be fully illustrated with experiments, diagrams, and specimens. With the view of connecting the instruction provided at the lectures with the practical teaching in the laboratories, the Demonstrator of Practical Chemistry will conduct the after-lecture examinations.

Lectures on Botany and Materia Medica by Professor

Bentley, on Thursday, Friday, and Saturday mornings at nine o'clock, commencing Friday, October 5. During the session two courses of lectures will be delivered, each consisting of sixty lectures. The first course, extending from October to the end of February, will comprise Botany and Materia Medica, with especial reference to Structural Botany, and the use of the microscope in distinguishing the various drugs; and the second course, which commences in March and extends to the end of July, will also comprise Botany and Materia Medica, with especial reference to Systematic and Practical Botany. Each course will be complete in itself, although each will have a definite object in view. The portion of the second course on Systematic and Practical Botany, consisting of twenty lectures, commences in May and ends in July. Separate entries may be made for this portion.

The Laboratories for the study of Practical Chemistry will be opened on Monday, October 1, at 10 a.m., under the direction of Professor Atfield, assisted by the Demonstrator of Practical Chemistry, Mr. Wyndham R. Dunstan, F.C.S., and an Assistant-Demonstrator, Mr. F. W. Short. The Laboratories are fitted up with every convenience for the study of the principles of Chemistry by personal experiment. They are specially designed for the study of Pharmacy, but are also well adapted for the acquirement of a knowledge of Chemistry in its application to manufactures, analysis, and original research. There is no general class for simultaneous instruction, each student following an independent course of study always determined by his previous knowledge; pupils can therefore enter for any period at any date. A complete course of instruction, including the higher branches of Quantitative Analysis, occupies ten full months, and dates from the day of entry to that day twelvemonth. The Laboratories are open daily. Vacation months, August and September.

Prospectuses and further particulars may be had of the Professors or their assistants, 17, Bloomsbury-square, W.C.

#### EDUCATIONAL VACCINATION STATIONS.

In order to provide for the granting of those special certificates of proficiency in vaccination which are required to be part of the medical qualification for entering into contracts for the performance of Public Vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The Vaccination Stations enumerated in the subjoined list are open, under certain specified conditions, for the purposes of teaching and examination.

2. The Public Vaccinators officiating at these stations are authorised to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein; and

3. The Public Vaccinators whose names in the subjoined list are printed in italic letters are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed:—

LONDON.—Principal Station—Surrey Chapel, Blackfriars-road: *Dr. Robert Cory*, who attends on Tuesday and Thursday, at 2 p.m. North-west Stations—Marylebone General Dispensary, 77, Welbeck-street: Mr. William A. Sumner, on Tuesday, at 2 p.m.; Hall of the Working-Men's Christian Association, Omega-place, Alpha-road: Mr. William A. Sumner, on Wednesday, at 10 a.m. West Station—9, St. George's-road, Pimlico, S.W.: Mr. Edward Lowe Webb, on Thursday, at 10 a.m. East Station—Eastern Dispensary, Leman-street: Mr. Charles T. Blackman, on Wednesday, at 11 a.m. North Station—Tottenham court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station—2, Regent-place, Horseferry-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station—14, Russell-street, Covent-garden: Mr. Robert William Dunn, on Thursday, at 11 a.m. South-east Station—Vestry Hall, St. John's, Horseferry-down: Mr. John Gittins, on Monday, at 2 p.m. St. Thomas's Hospital: Dr. Robert Cory, on Wednesday, at 11 30 a.m.

BIRMINGHAM.—St. Jude's School-room, Hill-street, near Smallbank-street, on Monday, at 11 a.m.; the Assembly Rooms, 103, Constitution-hill, opposite Bond-street, on Tuesday, at 11 a.m.; the Wesleyan Methodist Infant School-room, Monument-road, on Wednesday, at 11 a.m.; the Wesleyan School-room, Peel-street, Winson-green-road, on Wednesday, at 2 p.m.; and "The British Workman" Reading Rooms, Sherborne-street, near Grosvenor-street, on Thursday, at 11 a.m.: *Dr. Edmund Robinson.*

BRISTOL.—The Public Vaccination Station, Peter-street: Mr. Henry Lawrence, on Wednesday, at 10 a.m.

EXETER.—The Dispensary, Castle-street: Mr. William A. Budd, on Thursday, at 3 p.m.

LEEDS.—Heed-street: Mr. Frederick Holmes, on Tuesday, at 2.30 p.m.

LIVERPOOL.—St. Mary's School-room, Edgehill, West Derby: Mr. Roger Parker, on Thursday, at 2.30 p.m.

MANCHESTER.—72, Rochdale-road: Mr. Ellis Southern Guest, on Monday, at 2 p.m.

NEWCASTLE-UPON-TYNE.—The Central Vaccination Station, 21, Nun-street: Mr. John Hawthorn, on Wednesday, at 3 p.m.

SHEFFIELD.—The Public Vaccination Station, Townhead-street: Mr. William Skinner, on Tuesday, at 3 p.m.

EDINBURGH.—Royal Dispensary: Dr. William Husband, on Wednesday



and Saturday, at 12. The New Town Dispensary: Dr. James O. Affleck, on Wednesday and Saturday, at 1.

GLASGOW.—The Hall of the Faculty of Physicians and Surgeons: Dr. Hugh Thomson, on Monday, at 12. The Royal Infirmary: Dr. Robert Dunlop Tannahill, on Monday and Thursday, at 12. The Western Infirmary: Dr. David Caldwell McVail, on Monday, at 1 p.m.

Candidates for the Certificate by Examination are recommended to communicate some days beforehand with the Examiner at whose station they propose to attend.

## SPECIAL INSTRUCTION.

### SCHOOLS AND OTHER PLACES OF GENERAL AND SPECIAL INSTRUCTION.

BESIDES the regular Schools with their various departments, there are many other institutions—devoted, some of them, to special purposes—where students and practitioners may acquire a sound knowledge of various subjects which hardly enter into the ordinary curriculum. We have already indicated that in the plan of studies the student may avail himself of a year at the beginning or at the end for such purposes. If at the beginning, we could not do better than advise him to take a session at the Royal School of Mines (now the Natural Science Department at South Kensington), studying especially Chemistry and Natural History, the value of which we have already inculcated. If he takes the year at the end, then such special studies as Eye Diseases, Skin Diseases, Lunacy, Diseases of Women and Children, may well engage his attention. These may, as a rule, be studied in connexion with his school; or, if a wider field is desired, in some one or other of the following institutions:—

#### Preliminary.

#### NORMAL SCHOOL OF SCIENCE AND ROYAL SCHOOL OF MINES.

Department of Science and Art.

During the session 1883-84, which will commence on October 1, the following courses of lectures and practical demonstrations will be given:

Mechanics—Mr. Goodeve.	Metallurgy—Mr. W. Chandler Roberts.
Chemistry—Dr. E. Frankland.	Biology—Professor T. H. Huxley.
Geology—Mr. John W. Judd.	Physics—Dr. Frederick Guthrie.

The lecture and laboratory fees are as follows:—Chemistry, Part I, lectures £4, laboratory £13; Part II, lectures and laboratory, £15; Part III, lectures and laboratory, £15. Physics, Part I, lectures £5, laboratory £12; Part II, lectures and laboratory, £12; Part III, lectures and laboratory, £12. Biology with Botany, Part I, lectures £4, laboratory £8; Part II, lectures and laboratory, £8; Part III, lectures and laboratory, £4; Part IV, lectures and laboratory, £8. Geology (Parts I, II, and III) with Mineralogy, Part I, lectures £4, (a) laboratory £8; (a) Part IV, lectures and laboratory, £8. Mechanics, Part I, lectures £4, laboratory £6; Part II, lectures and laboratory, £8; Part III, lectures and laboratory, £8. Metallurgy, Part I, lectures £2, laboratory £13; Part II, lectures and laboratory, £15.

Students who do not wish to attend the lectures are admitted for short periods to the laboratories, at the discretion of the Professors. The fees for the laboratories are £4 per month. Admission is granted to persons desirous of attending certain courses of the lectures without the laboratory instruction, on payment of the lecture fees.

#### SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY,

325, Kennington-road, and Central Public Laboratory, Kennington-cross, S.E.—Director—Dr. Muter.

FOURTEENTH SESSION—1883-84.

Daily lectures in Classics, Chemistry, Physics, Botany, Materia Medica, and Pharmacy. Laboratory open for Practical Chemistry from ten till five. Special instruction for Medical Officers of Health in Water, Air, Gas, and Food Analysis. For fees, etc., apply to W. Baxter, Secretary, Laboratory, Kennington-cross, S.E.

#### LONDON SCHOOL OF MEDICINE FOR WOMEN,

30, Henrietta-street, Brunswick-square, W.C.

(In Association with the Royal Free Hospital, Gray's-inn-road.)

#### LECTURERS.

Anatomy—Mr. Stanley Boyd.	Clinical Medicine—Dr. Cockle and Dr. Buchanan Baxter.
Physiology—Dr. Augustus Waller.	Hygiene—Dr. Sophia Jex Blake and Dr. Edith Pechey.
Chemistry—Mr. Heaton.	Clinical Surgery—Mr. F. J. Gant and Mr. W. Rose.
Botany—Dr. P. H. Stokoe.	Ophthalmic Surgery—Mr. J. Adams.
Materia Medica—Dr. Samuel West.	Minor Surgery—Mr. James Shuter, M.B.
Practice of Medicine—Dr. H. Donkin and Mrs. Garrett-Anderson, M.D.	Tutorial Class for Auscultation and Percussion—Dr. Samuel West.
Midwifery and Diseases of Women—Dr. Ford Anderson and Dr. Louisa Atkins.	Pathology—Dr. Allen Sturge.
Forensic Medicine—Dr. Dupré, F.R.S., and Mr. Bond.	Mental Pathology—Dr. Sankey.
Surgery—Mr. A. T. Norton.	Comparative Anatomy—Dr. Murie.
Dean of the School—Mrs. Garrett-Anderson, M.D.	

(a) These fees include also those for Parts II. and III. of Geology.

The Winter Session of 1883-84 will commence on October 1, and will comprise classes in Anatomy, Physiology, Chemistry, Practice of Medicine, Midwifery and Diseases of Women, and Practical Anatomy with Demonstrations. Clinical instruction will be given at the Royal Free Hospital, and will include lectures on Clinical Medicine, Clinical Surgery, Hospital Attendance, and Pathological Demonstrations. Separate clinics are held for the treatment of the Diseases of Women under Dr. W. Hayes, and for Ophthalmic Surgery under Mr. Grosvenor Mackinlay. Dressers, Clinical Clerks, and a Pathological Registrar will be selected from among the senior students.

The Royal Free Hospital contains 150 beds. The staff are—Physicians, Dr. Cockle and Dr. B. Baxter; Assistant-Physician, Dr. Samuel West; Surgeons, Mr. Gant and Mr. W. Rose; Assistant-Surgeon, Mr. J. Shuter; Physician for Diseases of Women, Dr. T. C. Hayes; Ophthalmic Surgeon, Mr. G. Mackinlay; Pathological Demonstrator, Dr. S. West.

An Entrance Scholarship, value £30, is competed for annually.

Fees for ordinary curriculum of non-clinical lectures £80, or £40 the first year, £30 the second, and £15 the third. Fees for clinical instruction and lectures for four years £45, or £20 the first year, £15 the second year, and £15 the third, the fourth being free. Apply for information to the Dean, or to the Hon. Sec., Mrs. Thorne.

#### MR THOMAS COOKE'S SCHOOL OF ANATOMY, PHYSIOLOGY AND SURGERY.

This School is intended to meet the requirements of two distinct classes of students—i.e. (1) advanced students and qualified practitioners, who may wish either to extend their knowledge of the foregoing subjects, or to recall to mind what they once knew and have since forgotten, (2) beginners entering upon their medical studies by a short term of apprenticeship. For the former, rapid advanced classes, complete in three months, but still thoroughly practical, are provided; and for the latter, when required, more elementary classes of six months' duration. For prospectus of particulars and terms, apply to Mr. Thomas Cooke's private address, 16, Woburn-place, Russell-square, W.

#### THE MASON SCIENCE COLLEGE, BIRMINGHAM.

This College has been appointed a local centre for the following examinations required by the University of London: viz., for the Intermediate Examinations in Arts and Science, and the Preliminary Scientific (M.B.).

#### SCIENCE DEPARTMENT.

Pure and Applied Mathematics.—The subjects taught in the several classes will meet the requirements of the Matriculation, the Intermediate Pass Examination in Science, and the B.Sc. (Branches 1 and 2) Examination of the University of London.

Also in Physics, Chemistry, Organic Chemistry, Zoology, Comparative Anatomy and Botany, candidates for the Intermediate Examination in Science, Preliminary Scientific (M.B.), and B.Sc. Examination of the University of London will be able to obtain the instruction necessary. Courses of lectures are given on Human Physiology, including Microscopic Anatomy. Practical Physiology is taught in the summer term. Each student tests for the most important constituents of the blood, bile, urine, milk, etc.; and is taught the practical use of some of the more important physiological apparatus, such as the cardiograph, sphygmograph, ophthalmoscope, and laryngoscope.

All information as to classes, fees, etc., can be obtained by application to the Secretary at the College.

#### LONDON.

##### General Hospitals.

##### GREAT NORTHERN HOSPITAL,

Caledonian-road.

Consulting Surgeon—Mr. F. Le Gros Clark, F.R.S.

Physicians—Dr. Cholmeley, Dr. R. Bridges, Dr. Cook, Dr. Buruet, Dr. Clifford Beale.

Obstetric Physician—Dr. Gustavus C. P. Murray.

Assistant Obstetric Physician—Dr. Fancourt Barnes.

Diseases of the Eye—Mr. R. Jennings Miles.

Surgeons—Mr. Gay, Mr. W. Adams, Mr. W. Spencer Watson,

Mr. J. Macready, Mr. C. B. Lockwood.

Aural Surgeon—Mr. A. E. Cumberbatch.

Dental Surgeon—Mr. E. Keeu.

Chloroformist—Mr. G. Eastes. House-Surgeon—Mr. H. G. Ashwell.

Junior Resident Medical Officer—Mr. Gandevia.

Dispenser—Mr. Marks.

##### WEST LONDON HOSPITAL,

Hammersmith-road, W.

By a recent enlargement has now 100 beds. In 1882 (47 beds), 678 in-patients, 13,503 out-patients. There are two appointments of House-Surgeon, each tenable for six months, salary £80 per annum (no board); a new one of Registrar, honorarium £25 per annum; also appointment for a limited number of Clinical Assistants.

Consulting Physician—Dr. Henry Maudsley.

Consulting Physician Accoucheur—Dr. W. O. Priestley.

Consulting Surgeons—Mr. Samuel Armstrong Lane, Mr. William Bird,

Mr. William F. Teevan.

Physicians—Dr. G. Goddard Rogers, Dr. J. C. Thorowgood,

Dr. D. W. C. Hood.

Physician for Diseases of Women—Dr. Alfred Wiltshire.

Surgeons—Mr. Alfred Cooper, Mr. C. B. Keetley, Mr. F. Swinford Edwards.

Surgeon for Diseases of the Eye—Mr. B. J. Vernou.

Assistant-Physicians—Dr. F. D. Drewitt, Dr. W. P. Herringham. (b)

Assistant-Physician for Diseases of Women—Dr. A. J. Veun.

Assistant-Surgeons—Mr. W. Bruce Clarke, Mr. A. Boyce Barrow,

Mr. C. A. Ballance.

Surgeon-Dentist—Mr. A. S. Underwood.

Administrator of Anæsthetics—Mr. T. Gunton Alderton.

Resident Medical Officers—Mr. Harold Hendley, Mr. H. H. Tayler.

Secretary—Mr. R. J. Gilbert.

(b) An election for one Assistant-Physicianship, now vacant, will take place on October 1.



**SEAMEN'S HOSPITAL (late *Dreadnought*), GREENWICH, S.E.**

Consulting Physicians—Dr. Robert Barnes, F.R.C.P.,  
and Dr. Richard Quain, F.R.C.P.  
Visiting Physicians—Drs. John Curnow, F.R.C.P.,  
and R. E. Carrington, M.R.C.P.  
Consulting Surgeon—Mr. George Busk, F.R.C.S., F.R.S.  
Visiting Surgeon—Mr. G. Robertson Turner, F.R.C.S.  
Medical Officer, Well-street Dispensary—Mr. E. Muirhead Little.  
Principal Medical Officer—Mr. W. Johnson Smith, F.R.C.S.  
Secretary—Mr. W. Thomas Evans.

**Special Hospitals.****CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,**  
Victoria-park.

Honorary Consulting Physician—Sir J. Risdon Bennett, M.D., F.R.S.  
Consulting Physicians—Dr. E. L. Birkett, Dr. J. Andrew, and  
Dr. J. C. Thorowgood.  
Consulting Surgeon—Mr. John Eric Erichsen.  
Physicians—Dr. Eustace Smith, Dr. J. B. Berkart, Dr. J. M. Fothergill,  
and Dr. Samuel West.  
Assistant-Physicians—Dr. G. A. Heron, Dr. V. D. Harris, Dr. J. A. Ormerod,  
Dr. E. Clifford Beale, Dr. Jas. Anderson, and Dr. B. Fenwick.  
Resident Medical Officer—Mr. Theodore H. Waller, M.R.C.S., L.R.C.P.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,**  
BROMPTON.

(Number of beds, 192; and 137 in new Extension Building.)

Consulting Physicians—Dr. C. J. B. Williams, Dr. W. H. Walshe,  
Dr. Richard Quain, and Dr. James E. Pollock.  
Consulting Surgeon—Prof. John Marshall  
Physicians—Dr. E. Symes Thompson, Dr. C. Theodore Williams,  
Dr. R. Douglas Powell, Dr. John Tatham, Dr. Reginald E. Thompson, and  
Dr. Frederick T. Roberts.  
Assistant-Physicians—Dr. T. H. Green, Dr. J. M. Bruce, Dr. J. Kingston  
Fowler, Dr. Percy Kidd, Dr. Cecil Y. Biss, and Dr. David King.  
Pathologist—Dr. Percy Kidd.  
Dental Surgeon—Mr. Charles J. Noble.  
Resident Medical Officer—Mr. Frederick J. Hicks, M.B., M.A., F.C.S.  
Secretary—Mr. Henry Dobbin.

The clinical practice of this Hospital is open to students of Medicine  
and practitioners. Fee for three months, £3 3s.; six months, £5 5s.;  
perpetual, £10 10s.

A course of clinical instruction in Auscultation will be given by the  
medical officers.

Certificates of attendance on the medical practice of this Hospital are  
recognised by the University of London, the Apothecaries' Society, and by  
the Army, Navy, and Indian Boards.

**HOSPITAL FOR DISEASES OF THE THROAT AND CHEST,**  
32, Golden-square, W.

Outpost—7, Newington-butts, S.E.  
Physicians—Dr. Morell-Mackenzie, Dr. Semple, Dr. Prosser James,  
and Dr. W. MacNeill Whistler.  
Surgeons—Mr. Edward Woakes and Mr. T. Mark Hovell.  
Dental Surgeon—Mr. Oakley Coles.  
Resident Medical Officer—Mr. Edward Law.  
Secretary—G. C. Witherby.

**CENTRAL LONDON THROAT AND EAR HOSPITAL,**  
Gray's-inn-road, W.C.

Consulting Surgeon—Mr. Sydney Jones, F.R.C.S.  
Surgeons—Mr. Lennox Browne, Dr. Llewelyn Thomas,  
Mr. Francis Hamilton.  
Assistant-Surgeons—Dr. Arthur Orwin, Dr. Dundas Grant.  
Defects of Speech—Mr. William Van Praagh.  
Dental Surgeon—Mr. George Wallis.  
Chloroformist—Dr. James Murray.  
Registrar and Pathologist—Mr. Percy Jakins.  
Secretary—Mr. Richard Kershaw.

**THE HOSPITAL FOR SICK CHILDREN,**

48 and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.

Physicians—Dr. Dickinson, Dr. Geo, and Dr. W. B. Cheadle.  
Assistant-Physicians—Dr. R. J. Lee, Dr. O. Sturges, Dr. Thomas Barlow, Dr. D. B. Lees, Dr. Lubbock.  
Surgeons—Mr. Thomas Smith and Mr. Howard Marsh.  
Assistant-Surgeons—Mr. Edmund Owen and Mr. J. H. Morgan.  
Ophthalmic Surgeon—Mr. R. Marcus Gunu.  
Surgeon-Dentist—Mr. Alex. Cartwright.  
Secretary—Samuel Whitford.

125 beds. In-patients, 1882, 1025. Out-patients attending, 12,900. The  
practice of the Hospital, in both in- and out-patient departments, is open  
at nine every morning.

**EVELINA HOSPITAL FOR SICK CHILDREN,**  
Southwark-bridge-road.

Consulting Physician—Dr. W. S. Playfair.  
Consulting Surgeons—Sir Prescott G. Hewett and Mr. W. Marrant Baker.  
Physicians—Dr. Frederick Taylor and Dr. Jas. F. Goodhart.  
Physicians to Out-Patients—Dr. Nestor Tirard and Dr. Frederick Willcocks.  
Surgeons—Mr. H. G. Howse and Mr. R. Clement Lucas.  
Dental Surgeon—Mr. Isidore Lyons.  
Surgeons to Out-Patients—Mr. R. Clement Lucas and Mr. Charters J. Symonds.  
Ophthalmic Surgeon—Dr. W. A. Brailey.  
House-Surgeon—Mr. W. H. C. Newnham, B.A.  
Secretary—Mr. T. Sands Chapman.

**VICTORIA HOSPITAL FOR CHILDREN,**

Queen's-road, Chelsea; and Churchfields, Margate.

Physicians—Dr. Julian Evans and Dr. T. Ridge Jones.  
Physicians to Out-Patients—Dr. Grigg, Dr. A. Venn, Dr. T. Colcott Fox, Dr. F. Dawtrey Drewett.  
Surgeon—Mr. George Cowell.  
Surgeons to Out-Patients—Mr. F. Churchill, Mr. Walter Pye.  
Dental-Surgeon—Mr. Francis Fox.  
Registrar—Mr. T. F. Hugh Smith.  
House-Surgeon—Mr. J. Alexander Shaw.

Secretary—Captain Blount, R.N.

**BELGRAVE HOSPITAL FOR CHILDREN**

79, Gloucester-street, Warwick-square, S.W.

**HONORARY MEDICAL STAFF.**

Consulting Physician—Sir W. W. Gull, Bart., M.D.  
Physicians—Dr. W. Hope and Dr. W. Ewart.  
Surgeons—Mr. W. Bennett and Mr. C. Dent.  
House-Surgeon—Mr. A. Grayling.

**EAST LONDON HOSPITAL FOR CHILDREN AND**  
DISPENSARY FOR WOMEN,

Shadwell, E.

Consulting Physicians—Dr. Barues and Sir Andrew Clark, Bart., M.D.  
Physicians—Dr. Eustace Smith and Dr. Horatio B. Donkin.  
Assistant-Physicians—Dr. Warner and Dr. Crocker.  
Administrator of Anæsthetics—Mr. Thomas Bird.  
Consulting Surgeon—Mr. B. Shillitoe.  
Consulting Ophthalmic Surgeon—Mr. George Cowell.  
Surgeons—Mr. A. Caesar, Mr. H. A. Reeves, and Mr. R. W. Parker.  
House-Surgeon—Mr. J. Scott Battams.  
Secretary—Ashton Warner.

The Hospital contains 92 beds, besides 10 beds in an Infirmary for  
nurses and children who require isolation. The Hospital is open free to  
patients.

**THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN,**  
Waterloo-bridge-road.

Consulting Physicians—Dr. Samuel Wilks, Dr. John Williams, and  
Dr. G. Vivian Poore.  
Consulting Surgeons—Mr. J. Cooper Forster and Mr. Edwin Canton.  
Physicians—Dr. William Park, Dr. George Roper, and Dr. George Gulliver.  
Surgeon—Mr. W. H. A. Jacobson.  
Assistant-Surgeon—Mr. E. Overman Day.  
Surgeon-Dentist—Mr. Walter Whitehouse.  
Resident Medical Officer—Mr. J. F. Briscoe.

Secretary—Mr. R. G. Kestin.

**THE HOSPITAL FOR WOMEN,**  
Soho-square, W.

Physicians—Dr. Protheroe Smith, Dr. Heywood Smith, Dr. Carter,  
Dr. R. T. Smith.  
Surgeon—Mr. Henry A. Reeves.  
Assistant-Physicians—Dr. Holland, Dr. Mansell-Moullin,  
Dr. Bedford Fenwick.  
Surgeon-Dentist—Mr. Frederic Canton.  
Administrator of Anæsthetics—Mr. Thomas Bird.  
Pathologist and Curator of Museum—Dr. Bedford Fenwick.  
Secretary—David Cannon.

**QUEEN CHARLOTTE'S LYING-IN HOSPITAL,(c)**  
191, Marylebone-road, London, N.W.

Physicians to the In-patients—Dr. Wm. Hope and Dr. W. C. Grigg.  
Physician to the Out-patients—Dr. Percy Boulton.  
House-Physician—Mr. Norman Dalton.

**BRITISH LYING-IN HOSPITAL,**  
Endell-street, St. Giles's, W.C.

Consulting Physician—Dr. Priestley.  
Consulting Surgeon—Sir T. Spencer Wells, Bart., F.R.C.S.  
Physicians—Dr. Heywood Smith, Dr. Fancourt Barnes, and Dr. J. Phillips.  
Matron—Miss Freeman.  
Secretary—FitzRoy Gardner, Esq.

**ROYAL LONDON OPHTHALMIC HOSPITAL,**  
Blomfield-street, Moorfields, E.C.

Consulting Surgeons—Mr. J. Dixon, Mr. G. Critchett, Mr. W. Bowman,  
Mr. J. Hutchinson, and Mr. J. C. Wordsworth.  
Surgeons—Messrs. Wordsworth, Streatfeild, J. W. Hulke, G. Lawson,  
J. Couper, Waren Tay, J. Adams, J. Tweedy, E. Nettleship, and R. M. Gunn.  
House-Surgeons—Messrs. M. A. Symons and W. O. Maher.  
Operations daily at 11 o'clock. In-patients in 1882, 1863; Out-patients,  
22,150. Students' fee—six months, £3 3s.; perpetual, £5 5s.

**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL,**  
King William-street, Charing-cross.

The Hospital contains thirteen wards with fifty beds, and the patients  
(10,000 new cases annually) are seen daily at 1 p.m., and operations per-  
formed at 2 p.m. The following are the days of attendance of the Surgical  
Staff:—Monday and Friday, Mr. Power; Monday and Thursday, Mr.  
Macnamara; Tuesday and Saturday, Mr. Rouse; Wednesday and Satur-  
day, Mr. Cowell. Assistant-Surgeons: Wednesday and Saturday, Mr.  
Henry Juler; Tuesday and Saturday, Mr. Hartridge; Monday and  
Thursday, Mr. Frost.  
The practice of the Hospital is open to students. Fees—for six months,  
£3 3s.; perpetual, £5 5s.

Secretary—Mr. Geo. C. Farraut.

(c) No return.



## HOSPITAL FOR DISEASES OF THE SKIN,

52, Stamford-street, Blackfriars, S.E.

Surgeons—Mr. Jonathan Hutchinson and Mr. Warren Tay.  
 Assistant-Surgeons—Mr. Wyndham Cottle and Dr. J. F. Payne.  
 Secretary—Samuel Hayman.

## BRITISH HOSPITAL FOR DISEASES OF THE SKIN,

West Branch, 61, Great Marlborough-st., W.; East Branch, 12A, Finsbury-square, E.C.; and South Branch, 5, Newington-butts, S.E.

Surgeons—Mr. Balmanno Squire and Mr. George Gaskoin.  
 Honorary Secretary—E. Morton Daniel, Esq.

## ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES,

Henrietta-street, Covent-garden, W.C.

Surgeons—Mr. Walter J. Coulson and Mr. W. F. Teevan.  
 Surgeons to the Out-Patient Department—Mr. F. R. Heycock,  
 Mr. F. S. Edwards, and Mr. W. Bruce Clarke.  
 House-Surgeon—Mr. Hugh Macnamara.  
 Secretary—Mr. Walter E. Scott.

## LONDON FEVER HOSPITAL, ISLINGTON.

Consulting Physicians—Dr. A. Tweedie, Dr. Broadbent, and Dr. G. Buchanan.

Physicians—Dr. Cayley and Dr. F. A. Mahomed.  
 Assistant-Physicians—Dr. Thomas Barlow and Dr. George Gulliver.  
 Consulting Surgeon—Mr. W. S. Savory.  
 Surgeon—Mr. A. J. Pepper.

Resident Medical Officer—Dr. E. O. Hopwood;  
 Assistant, Mr. R. M. O. C. Owen Fowler.  
 Secretary—Mr. E. Burn Callander.

This Hospital is recognised by the Royal University of Ireland, and certificates of attendance given by the Resident Medical Officers are accepted. These certificates are also accepted by the King and Queen's College of Physicians, Ireland.

ST. LUKE'S HOSPITAL FOR LUNATICS,  
Old-street, E.C.

Honorary Consulting Physician—Dr. Henry Mayo.  
 Physician—Dr. William Wood.  
 Surgeon—Mr. Alfred Willett.  
 Resident Medical Superintendent—Dr. George Mickley.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC,  
Queen-square, Bloomsbury.

Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, Buzzard.  
 Physicians for Out-patients—Drs. Charlton Bastian, Gowers, Ferrier.  
 Assistant-Physicians—Drs. Ormerod and Beevor.  
 Surgeon—W. Adams, F.R.C.S.  
 Resident Medical Officer and Registrar—N. Rushworth, M.R.C.S., L.R.C.P.

## PROVINCIAL.

## BATH ROYAL UNITED HOSPITAL.

Honorary Consulting Physicians—Dr. Davies and Dr. Coates.  
 Physicians—Dr. Goodridge, Dr. Cole, and Dr. Fox.  
 Surgeons—Mr. Stockwell, Mr. Fowler, and Mr. Freeman.  
 Assistant-Surgeons—Mr. Green, Mr. Scott, and Mr. Ransford.  
 Honorary Medical Officers for Out-Patients—Dr. Field, Mr. Cowan, and Mr. Craddock.  
 Dental Surgeon—Mr. Gaine.  
 Pathological Registrar and Curator—Mr. H. Culliford Hopkins.

The Hospital contains 120 beds, is recognised by the General Medical Council, and licensed for dissection. It has a good library, and an excellent museum containing a large number of interesting specimens, both in Pathology and Comparative Anatomy.

A year spent at the Hospital counts as one out of the four required before qualifying for practice.

Fees for attending the hospital practice—Six months, £5 5s.; twelve months, £10 10s. Instruction in Pharmacy, £5 5s.

Pupils entering in October can, if desired, be instructed in the subjects required for the First Professional Examination of the Royal College of Physicians, which can be passed during the year spent at the Hospital. The subjects are—Chemistry and Chemical Physics, Materia Medica and Pharmacy, Medical Botany, and Osteology.

For further particulars, apply to the Registrar and Curator.

## NORFOLK AND NORWICH HOSPITAL.

Physicians—Dr. Eade, Dr. Bateman, and Dr. Taylor.  
 Surgeons—Mr. Cadge, Mr. Crosse, and Mr. Williams.  
 Assistant-Surgeons—Dr. Beverley and Mr. Robinson.  
 Resident Medical Officer—Mr. D. D. Day.

## WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

Medical Officers—Dr. Millington, Dr. Totherick, Mr. Vincent Jackson,  
 Mr. J. O'B. Kough, Mr. F. E. Manby.  
 Physician to Out-Patients—Dr. H. Malet.

Fees for hospital practice—For six months, £6 6s.; for one year, £10 10s.; perpetual, £22 1s. Some members of the honorary staff receive resident pupils.

## GENERAL INFIRMARY, NORTHAMPTON.

Physician—Dr. Buszard.  
 Surgeons—Mr. Kirby Smith and Mr. G. H. Percival.  
 House-Surgeon—Mr. J. Oswald Lane.  
 Assistant House-Surgeon—W. Winworth Smith.

## ROYAL DISPENSARY, EDINBURGH. (d)

Consulting Physician-Accoucheurs—Dr. Keiller and Dr. Bell.  
 Medical Officers—Dr. W. Husband, Dr. James Andrew, Dr. D. Wilson,  
 Dr. F. W. Moinet, Dr. A. J. Sinclair, Dr. Cotterill, Dr. Waller,  
 Dr. Jamieson, Dr. Spence, Dr. Peter Young, Dr. Dyce Fraser, and Dr. Black.

Midwifery Department—Dr. Andrew and Dr. Young.

Vaccination—Dr. Husband.

Apothecary—Mr. J. Nicol.

Secretary to Medical Officers—Dr. Andrew.

## ROYAL HOSPITAL FOR SICK CHILDREN, MEADOWSIDE HOUSE, EDINBURGH.

Consulting Physicians—Drs. Charles Wilson, Graham Weir,  
 George W. Balfour, and R. Peel Ritchie.  
 Consulting Surgeon—Professor Annandale.

Pathologist—Dr. Woodhead.

Ordinary Physicians—Drs. Dunsmure, Andrew, Underhill, Carmichael.

Surgeon-Dentist—Dr. Smith.

Ophthalmic Surgeon—Dr. Argyll Robertson.

Resident Physician—Dr. Spence.

Honorary Secretaries—Messrs. Henry and Scott, 20, St. Andrew-square.  
 Treasurer—Mr. W. H. Cook, 1, Albyn-place.

EDINBURGH DISPENSARY FOR DISEASES OF THE EAR,  
6, Cambridge-street, Lothian-road.

Surgeon—Dr. J. J. Kirk Duncanson.

Annual patients, upwards of 600. Open Mondays, Thursdays, and Saturdays, 12 noon.

## GLASGOW HOSPITAL AND DISPENSARY FOR DISEASES OF THE EAR,

239 and 241, Buchanan-street.

HONORARY MEDICAL STAFF.

Senior Consulting Physician—Dr. P. Stewart.

Senior Consulting Surgeon—Dr. James Morton.

Consulting Dental Surgeon—Dr. J. Edwin Woodburn.

Physicians—Dr. A. K. Irvine, Dr. A. L. Kelly, Dr. J. Gardner.

Aural Surgeon and Lecturer on Aural Surgery—Dr. James P. Cassells.

Clinical Assistant—Dr. James Erskine.

## GLASGOW EYE INFIRMARY,

170, Berkeley-street, and 76, Charlotte-street.

Senior Surgeon—Dr. Thomas Reid.

Surgeons—Dr. T. S. Meighan, Mr. H. E. Clark, Dr. J. Crawford Renton.

Assistant-Surgeons—Mr. D. N. Knox, Dr. Johnston Macfie, and

Mr. A. Freeland Fergus.

House Surgeon—Dr. A. Maitland Ramsay.

Consulting Surgeon—Dr. George Buchanan.

Secretary—George Black, 88, West Regent-street.

## ST. MARK'S OPHTHALMIC HOSPITAL AND DISPENSARY FOR DISEASES OF THE EYE AND EAR,

Lincoln-place, Dublin.

Surgeon—John B. Story, M.B., M.Ch., F.R.C.S.I.

Assistant-Surgeon—Arthur H. Benson, M.B., F.R.C.S.I.

Resident Surgeon—Sayer Hasbrouck, M.D. Boston.

## APPOINTMENTS FOR THE WEEK.

## September 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

## 17. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

## 18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

## 19. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

## 20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

## 21. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

(d) No return.



## THE PUBLIC SERVICES.

## ARMY MEDICAL DEPARTMENT.

No candidate to exceed the age of twenty-eight years on appointment as a Surgeon on probation.

He must be registered under the Medical Act in force at the time of his appointment, as possessing two diplomas or licences recognised by the General Medical Council—one to practise Medicine, and the other Surgery—in Great Britain and Ireland.

Candidates will be examined by the Examining Board in Anatomy and Physiology; Surgery; Medicine, including therapeutics, and the diseases of women and children; Chemistry and Pharmacy, and a practical knowledge of drugs.

The ranks and rates of pay of Officers will be as follows:—

	£	s.	d.
Surgeon-General . . . . . daily	2	15	0
After 25 years' service . . . . . "	—	—	—
" 30 years' service . . . . . "	—	—	—
" 35 years' service . . . . . "	—	—	—
At Head-quarters . . . . . yearly	1,300	0	0
Deputy Surgeon-General . . . . . daily	2	0	0
After 25 years' service . . . . . "	—	—	—
" 30 years' service . . . . . "	—	—	—
" 35 years' service . . . . . "	—	—	—
At Head-quarters . . . . . yearly	900	0	0
Brigade Surgeon . . . . . daily	1	10	0
After 5 years in the rank . . . . . "	1	13	0
At Head-quarters . . . . . yearly	750	0	0
Surgeon-Major . . . . . daily	1	0	0
After 15 years' service . . . . . "	1	2	6
" 5 years' service as such . . . . . "	—	—	—
" 20 years' service . . . . . "	1	5	0
" 25 years' service . . . . . "	1	7	6
At Head-quarters . . . . . yearly	650	0	0
Surgeon . . . . . "	200	0	0
After 5 years' service . . . . . "	250	0	0
" 10 years' service . . . . . daily	0	15	0
Surgeon on probation . . . . . "	0	8	0

The rates of gratuity, retired pay, or half-pay, for Medical Officers of the Army will be as follows:—

	£	s.	d.
Surgeon and Surgeon-Major :			
After 10 years' service . . . . . gratuity	1,250	0	0
" 15 years' service . . . . . "	1,800	0	0
" 18 years' service . . . . . "	2,500	0	0
Surgeon-Major :			
After 12 years' service . . . . . daily	—	—	—
" 15 years' service . . . . . "	—	—	—
" 20 years' service . . . . . "	1	0	0
" 25 years' service . . . . . "	1	2	6
" 30 years' service . . . . . "	1	5	0
Brigade-Surgeon :			
After 20 years' service . . . . . "	1	7	6
" 30 years' service . . . . . "	1	10	0
Deputy Surgeon-General . . . . . "	1	15	0
After 20 years' service . . . . . "	—	—	—
" 25 years' service . . . . . "	—	—	—
" 30 years' service . . . . . "	—	—	—
Surgeon-General . . . . . "	2	0	0
After 20 years' service . . . . . "	—	—	—
" 25 years' service . . . . . "	—	—	—
" 30 years' service . . . . . "	—	—	—

## Temporary Half-pay.

A Medical Officer, under 5 years' service . . . . . "	0	6	0
" " after 5 years' service . . . . . "	0	8	0
" " " 10 years' service . . . . . "	0	10	0
" " " 15 years' service . . . . . "	0	13	6

Candidates for commissions in the Army proceed to the Army Medical School at Netley to go through a course of study after passing the examination in London.

## INDIAN MEDICAL DEPARTMENT.

The rules for admission to the above department are identical with those for the Army Medical Department. The rates of pay are as follows:—

	Years' service.	Per mensem.
		R. A. P.
Brigade-Surgeon. (Not yet fixed.)		
Surgeon-Major . . . . . 25 . . . . .	25	888 12 0
" " . . . . . 20 . . . . .	20	852 3 7
" " . . . . . 15 . . . . .	15	677 6 11
" " . . . . . 12 . . . . .	12	640 14 6
Surgeon . . . . . 10 . . . . .	10	410 9 5
" . . . . . 6 . . . . .	6	392 5 2
" . . . . . 5 . . . . .	5	304 14 2
" . . . . . under 5 . . . . .	under 5	286 10 0

The salaries of the principal administrative and military appointments are:—

	Rs. per mensem.
Surgeon-General, Bengal . . . . .	2700
" " Madras . . . . .	2500
" " Bombay . . . . .	2500
Deputy Surgeon-General { two at . . . . .	2250
{others at . . . . .	1800
Brigade-Surgeon. (Not yet fixed.)	
Surgeon-Major of 20 years' service and upwards in charge of Native Regiments . . . . .	1000
Surgeon-Major in charge of ditto . . . . .	800
Surgeon above 5 years' full-pay service in charge of ditto . . . . .	600
Surgeon under 5 years' ditto . . . . .	450

Candidates for commissions in the Indian Medical Service proceed to the Medical School at Netley to go through a course of study after passing the examination in London.

The following are the regulations for the examination of candidates for the appointment of Surgeon in Her Majesty's Service, in the Indian Medical Service, and in the Navy:—

All natural-born subjects of Her Majesty, between twenty-one and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a diploma in Surgery, or a licence to practise it, as well as a degree in Medicine, or a licence to practise it, in Great Britain or Ireland, as well as a certificate of registration in the Medical Register. Candidates for the British Army and the Naval Medical Services must also declare that their parents are of unmixed European blood. And candidates for the Indian Service must have attained the age of twenty-two. All candidates are examined as to physical fitness by a Board of Medical Officers. All these conditions being satisfied, candidates are admitted to a competitive examination.

Candidates are examined in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a.* Anatomy and Physiology, 1000 marks; *b.* Surgery, 1000; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1000; *d.* Chemistry and Pharmacy, and a practical knowledge of drugs, 100 marks.

(The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.)

The eligibility of each candidate for the Indian Medical Service will be determined by the result of the examinations in these subjects only.

Candidates, who desire it, will be examined in French, German (and Hindustani for the Indian Service), Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*.

The number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences.

The maximum number of marks allotted to the voluntary subjects will be as follows:—French, German, and Hindustani (150 each), 450; Natural Science, 300.

After passing the preliminary examination, candidates will be required to attend one entire course of practical instruction at the Army Medical School, before being admitted to examination for a commission, on—(1) Hygiene, (2) Clinical and Military Medicine, (3) Clinical and Military Surgery, (4) Pathology of Diseases and Injuries incident to Military Service.

(These courses are to be of not less than four months' dura-







her escape from the burning house, they added the following rider:—"And the jury unanimously record their opinion that the laws which give power to confine lunatics should provide efficient means for their protection from fire; and that the Commissioners in Lunacy should have exercised greater vigilance in causing adequate provision to be made at the Southall Park Asylum." We shall have more to say on this subject next week.

#### THE INTERNATIONAL MEDICAL CONGRESS, AMSTERDAM.

THE International Medical Congress at Amsterdam opened its proceedings on the 6th inst. The attendance was very large, comprising delegates from almost every civilised country in the world. The representatives of this country included Sir Joseph Fayrer, Dr. Barclay, Dr. Duckworth, and Dr. Scriven, of London; Professors De Chaumont and Lewis, of the Army Medical School, Netley; Dr. Ewart, of Brighton; Dr. Sydney Jones, of New South Wales; and Professor Norman Chevers. The Congress was opened by Professor Stockvis, of Amsterdam University, and the Burgomaster of Amsterdam, who heartily welcomed the Congress on its assembly in the Dutch capital. Amongst the Honorary Presidents of the Congress are Sir Joseph Fayrer, Professors De Chaumont and Lewis, and Dr. Sydney Jones. The inaugural address was delivered by Professor Stockvis, after which the Congress proceeded to its more special work under its appointed sections.

#### THE POLLUTION OF THE MEDWAY.

THE pollution of the river Medway at Maidstone by the paper manufacturers on its banks is just now exciting considerable attention, and it is asserted that never since the pollution began (twenty years since) has it been so bad and so continuous as it now is. Twenty years ago the water of the Medway was noted for its purity: it was so clear that frequently it was possible to see the bed of the river; and barge captains were accustomed, before sailing, to secure a supply of it for drinking purposes. Even at the present time, after a cessation of the pollution for two or three days the stream becomes remarkably clear. The pollution complained of is of a twofold character. The less harmful is that which turns the water of a coffee colour for two or three miles, and covers the surface with floating patches of filthy froth. The more objectionable discharges are those of alkaline liquid, which kill the fish, and cause them to become a great nuisance when floating on the top of the water in an advanced stage of decomposition. It is contended that, if proper precautions were taken, the system of converting a remarkably pure river into a common sewer might be avoided; and the complaints have at length become so serious that the Corporation have appointed a committee to confer with the mill-owners, and to report on the legal remedies which it may become necessary to invoke.

#### TO CORRESPONDENTS.

WE beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools, for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

As this number is almost entirely devoted to matter mainly concerning Students, many important communications and contributions unavoidably stand over.

We have here given everything of importance for the entering Student to know; for any further details he should apply for a prospectus to the authorities of the School he may select.

## VITAL STATISTICS OF LONDON.

Week ending Saturday, September 8, 1883.

#### BIRTHS.

Births of Boys, 1214; Girls, 1220; Total, 2434.  
Corrected weekly average in the 10 years 1873-82, 2627·8.

#### DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	653	604	1257
Weekly average of the ten years 1873-82, } corrected to increased population ...	754·2	663·0	1417·2
Deaths of people aged 80 and upwards ...	...	...	34

#### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	1	...	...	...	2	...	1	...	11
North ...	905947	1	3	10	4	1	...	27	...	21
Central ...	252238	1	1	6	3	2	1	1	...	...
East ...	692738	...	4	14	2	4	...	1	...	14
South ...	1265927	...	10	13	5	13	...	5	...	41
Total ...	3816483	1	19	43	14	22	1	35	...	87

#### METEOROLOGY.

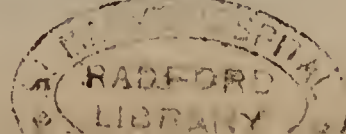
From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·508 in.
Mean temperature ...	...	...	...	...	...	54·7°
Highest point of thermometer ...	...	...	...	...	...	67·1°
Lowest point of thermometer ...	...	...	...	...	...	41·5°
Mean dew-point temperature ...	...	...	...	...	...	51·2°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·81 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 8, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Sept. 8.	Deaths Registered during the week ending Sept. 8.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2434	1257	16·6	67·1	41·5	54·7	12·61	0·81	2·06
Brighton ...	111262	57	65	30·5	67·0	44·0	55·9	13·28	0·76	1·93
Portsmouth ...	131478	95	58	23·0	...	...	...	...	...	...
Norwich ...	89612	60	38	22·1	...	...	...	...	...	...
Plymouth ...	74977	47	38	26·4	64·1	46·8	55·4	13·00	1·69	4·29
Bristol ...	212779	139	73	17·9	67·0	45·4	54·8	12·67	1·08	2·74
Wolverhampton ...	77557	62	36	24·2	61·8	40·1	51·8	11·01	0·43	1·09
Birmingham ...	414846	271	207	26·0	...	...	...	...	...	...
Leicester ...	129483	84	52	21·0	...	...	...	...	...	...
Nottingham ...	199349	143	75	19·6	66·1	42·0	54·2	12·33	0·96	2·44
Derby ...	85574	51	23	14·0	...	...	...	...	...	...
Birkenhead ...	88700	50	30	17·6	...	...	...	...	...	...
Liverpool ...	566753	344	238	21·9	60·2	46·5	52·9	11·61	1·52	3·86
Bolton ...	107862	84	59	28·5	60·1	41·6	51·1	10·62	1·61	4·09
Manchester ...	339252	231	152	28·0	...	...	...	...	...	...
Salford ...	190465	127	84	23·0	...	...	...	...	...	...
Oldham ...	119071	83	32	14·0	...	...	...	...	...	...
Blackburn ...	108460	83	47	22·6	...	...	...	...	...	...
Preston ...	98564	71	54	28·6	64·0	47·0	54·5	12·50	1·74	4·42
Huddersfield ...	84701	47	32	19·7	...	...	...	...	...	...
Halifax ...	75591	41	32	22·1	...	...	...	...	...	...
Bradford ...	204807	111	78	19·4	63·9	46·2	53·6	12·01	0·58	1·47
Leeds ...	321611	223	151	24·5	65·0	47·0	54·9	12·72	0·91	2·31
Sheffield ...	295497	182	129	22·8	64·0	43·0	53·6	12·01	0·62	1·57
Hull ...	176296	108	64	18·9	...	...	...	...	...	...
Sunderland ...	121117	101	65	28·0	...	...	...	...	...	...
Newcastle ...	149464	94	78	27·2	...	...	...	...	...	...
Cardiff ...	90033	69	30	17·4	...	...	...	...	...	...
For 28 towns ...	8620915	5495	3305	20·0	67·1	40·1	54·0	12·22	1·06	2·69
Edinburgh ...	235946	113	75	16·6	...	...	...	...	...	...
Glasgow ...	515589	361	231	23·4	61·8	43·0	55·0	12·78	0·49	1·24
Dublin ...	349685	176	164	24·5	62·8	39·7	53·3	11·84	0·69	1·75

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·51 in.; the lowest reading was 28·62 in. on Sunday afternoon, and the highest 29·91 in. at the end of the week.





LECTURES  
ON  
THE PROTECTIVE AND LACRIMAL  
APPARATUS OF THE EYE.

*Delivered at the Royal College of Surgeons.*

By HENRY POWER, M.B. Lond., F.R.C.S. Eng.,

Arris and Gale Lecturer at the College; Senior Ophthalmic Surgeon, and  
Lecturer on Ophthalmic Surgery, St. Bartholomew's Hospital.

LECTURE I.

THE Arris and Gale Lectureship, which I have the honour of holding, was instituted for the advancement of anatomical and physiological knowledge.

I purpose in this and the two following lectures to give an account of the protective and especially of the lacrimal apparatus in animals and man, and I have been induced to take up this subject, first, on account of the great interest that attaches to it in that department of surgery which I practise; secondly, because the lacrimal apparatus is not well represented in this museum, of which we are all so proud; and, thirdly, because it is a subject which, alike in regard to its anatomy, histology, and physiology, has been rather neglected in this country, as may be seen by anyone who will take the trouble to turn to our best treatises—to Gray, Quain and Sharpey, and Ellis, to Foster, Carpenter, and Mr. Baker's edition of "Kirkes' Physiology"; for these give, in the compass of a single page or a little more, all that it is thought requisite the student should learn.

In treatises devoted to histology, the statement is generally made, that the lacrimal gland belongs to the type of acinous glands, and little or no mention is made of the gland of Harder, or of the structure of the canaliculi or naso-lacrimal tube. And this is somewhat remarkable when we reflect how large a space the pathology of the lacrimal apparatus occupies in every treatise on ophthalmic surgery. How frequently abnormal conditions of this apparatus occur in practice, amounting to at least 5 per cent. of all cases, and how difficult they are to treat! yet it would, I imagine, be acknowledged on all hands that sound treatment must depend on accurate anatomical and physiological knowledge. Cases of obstruction of the lacrimal passages seem indeed to be the despair of many ophthalmic surgeons, when we remember that they have led to the suggestion, and even to the adoption in practice, of such formidable operations as the excision of the lacrimal gland, the obliteration of the lacrimal sac by the glowing iron, and the preposterous proceeding of punching a hole through skin and bone and mucous membrane from the eye to the nose with an instrument like a shoemaker's punch. If Mr. Bowman had no other claim to the esteem of the profession than that which is due to him for the simple and scientific method of treating these cases which he has proposed, even though it may not in all instances be attended with perfect success, he would still take high rank amongst those who have done most to advance and improve the surgical treatment of diseases of the eye.

But if the information to be gained from English works is somewhat bald and imperfect, in France and Germany many monographs have been written—some dealing with the lacrimal gland and the lacrimal passages in man; others with the special gland associated with the nictitating membrane in animals; others with the process of development of the whole apparatus; and others again with the physiology both of the secretions themselves, and with the mechanism of the apparatus by which these secretions are conveyed away. These original papers form collectively rather a large literature, and I venture to hope that in these lectures I may have collected from various sources and be able to place before you information that is otherwise widely scattered and is not familiar to the ordinary English reader. Most of the dissections which will illustrate the remarks I have to make have been executed by William Pearson, whose skill in this direction is known to all of us by the

beautiful dissections in the museum, and without whose aid it would have been impossible for me to have added so many specimens to the museum. I have to thank him also, as well as my son and some other friends, for many sections.

In considering how I could best deal with the materials in my possession, it seemed to me that it would be advisable to consider the lacrimal apparatus in Amphibia, Reptiles, and Birds in my first lecture; in my second to describe its characters in detail in Mammals and in Man; and in my third lecture to discuss the physiology of the secretion of tears and the functional significance of the several parts, adding, if time is sufficient, a few observations of a practical nature.

There are no lacrimal glands in any of the Invertebrata. In the highest Arthropods the faceted corneal surface of the eyes is hard, horny, bright, and polished, and particles of dust are removed by a brushing movement of the fore legs—an action that is familiar to all in the fly, bee, ant, and beetle, which carefully clean their eyes. The higher Mollusca live in water, and the surface of the eyes is kept clean by the currents of this fluid; or if, as in the case of the snail, they are terrestrial, they are carefully protected by being retracted in the long tentacles. In the cuttle-fish a glandular apparatus surrounds the eye, and there is a circular fold in the species brought home by Ross, with a sphincter which can cover the cornea and protect it from spicula of ice.

Amongst the Vertebrata the presence of lids and of a glandular apparatus connected with them is limited to the Amphibia, Reptiles, Birds, and Mammals. Eyelids and their associated glands are absent amongst Fishes. Living in water, the surface of their eyes is continually washed with the circumambient fluid, and it is only in the highest forms, as the Sharks, that some rudiments of the lids appear, with, in one family, the Carchariidæ, sharks chiefly inhabiting the warmer seas of the tropics, a nictitating membrane. The nictitating muscle is stated by von Carus not to lie, as in the higher classes, upon the eye, but behind the orbit, and to arise from the side of the skull. In the orbit of one Fish alone, according to Günther—*Chorismodontex*—an organ has been found which can be compared to a saccus lacrimalis. It is a round, blind, wide sac of the size of a pea, situated below the anterior corner of the orbit, between the maxillary bone and the muscles of the cheek, communicating by a rather wide foramen with the orbital cavity. The membrane by which it is formed is continuous with that lining the orbit.

In the lower division of the Amphibia, represented by the Urodela or tailed Amphibia, of which the Newt or Eft, the Salamander, and Proteus, are typical examples, it is found that in the Proteus, which inhabits the waters of the dark underground caves of Styria and Carinthia, the eyes, no longer required, with all their accessory apparatus, have (apparently from disuse) undergone degeneration, have become extremely small, and are covered by a prolongation of the skin, which either presents no eyelids at all, or at most only a rudimentary circular fold.

In the Salamander, however, the eyes are large, and there are valve-like folds of the skin which present some approximation to true eyelids; yet even here the skin, after forming the lid-folds, is continued over the eye, becoming transparent at its central part. No lacrimal apparatus is known to exist in these creatures, and there do not appear to be any channels by which the products of their secretion, if present, could be conveyed away.

In the higher division, or Anoura, represented by the various genera of Frogs and Toads, and which spend much of their time out of water, the presence of lids and a lacrimal apparatus becomes a necessity for their protection. There is only one genus in which no lids exist—that is in the Pipa, or Surinam toad, so interesting on account of the female incubating the eggs on her back, and in which the eyes are very small and placed quite in the fore part of the head. In all the rest of the Anoura there is an upper and lower eyelid, which has a free border that resembles a membrana nictitans. In the Bufonidæ, but not in the other genera, a rudimentary lower eyelid exists. The upper eyelid is always adherent to the globe of the eye, and follows its movements. According to Ecker, it contains no muscular tissue. The cleansing of the surface of the eye is essentially effected by a kind of membrana nictitans, which is of considerable size, and appears here for the first time with its own proper



or Harderian gland. It is a transparent membrane, destitute of pigment except at its free border, and presenting the characters of skin, with nerves, vessels, and cutaneous glands, though the latter are more sparsely scattered than in the skin itself. It can be rapidly drawn up over the anterior surface of the eye by the action of a special muscle. When retracted, its free border embraces the lower segment of the globe; but when the muscle contracts, it rises and covers the greater part of the surface of the eye. It is essentially the free border of the lower lid in the Frogs, but in Bufonidæ there is a rudiment of a special lower lid.

The precise mode in which the movement of this membrane is accomplished is, however, not very perfectly known. Dugés has described (a) two muscles amongst the extrinsic muscles of the eye, having for their function the elevation of the lower eyelid. These, he believes, constitute portions of the strong retractor bulbi, from which they are only separated and prolonged anteriorly. The outer, which he names the oculo-palpebral postérieure, is somewhat more completely separated, or is separated to a rather greater extent backwards, than the inner, which he names the oculo-palpebral antérieure. These two slips, he thinks, draw the eyelid over the eye, at the same time that the retractor bulbi draws the eye backwards and downwards.

Manz, (b) however, believes that he is able to demonstrate that the free border of the membrana nictitans, which is usually characterised by a special deposit of pigment, passes on either side into a thin tendinous band, which runs through a pulley attached to the periosteum of the orbit, and is then joined by connective tissue to the retractor muscle, so that a ring is formed, having the membrana nictitans in front, whilst the posterior half, crossing the fibres of the retractor bulbi at right angles, is intimately connected with them. The inner part of the tendinous band lies beneath the gland of Harder, and the disposition of the whole is such, that as the globe of the eye is retracted the membrana nictitans rises, the tendon rolling through the pulley. The depression of the membrana nictitans is effected, according to Manz, by a small special muscle arising near the external angle of the eye, which he has named the musculus palpebræ inferioris. The whole length of the tendinous ring in frogs of moderate size is estimated at about nine to ten millimetres, or nearly half an inch. Nuhn simply says the muscular apparatus of the nictitating membrane resembles that of Birds, except that the musculus quadratus is absent, and a tendinous fasciculus of the musculus pyriformis passes to the outer extremity of the upper eyelid.

There is no true lacrimal gland in Frogs and Toads; that is, there is no gland situated at the upper and outer part of the orbit discharging a clear watery fluid, though they possess a well-developed naso-lacrimal duct. A gland, however, is found at the inner canthus, which pours its secretion into the space between the nictitating membrane and the globe of the eye. This is the first appearance of the Harderian gland—a gland that we shall hereafter see is constantly associated with the nictitating membrane. It is particularly well developed in the Toad. It is of pyriform shape, and is composed of a number of acini united into lobules and lobes by fine fibrillar connective tissue, which forms a strong investment to the whole gland. The alveoli have a diameter of 1-300th or 1-400th of an inch, and they present a canal and a wall. The canal of the acinus becomes smaller as it runs towards the excretory duct. The wall is composed of a layer of columnar and finely granular cells, with ill-defined cell-walls, resting on a delicate and homogeneous membrana propria. In preparations macerated in Müller's fluid, the nuclei are spherical and pale, and lie near the membrana propria, like the cells of the salivary glands. The excretory ducts are lined by a single layer of columnar cells, which are shorter and smaller than those lining the alveoli, and the walls of the larger ducts are strengthened by connective tissue. The gland, as a whole, is very vascular, every alveolus being surrounded by a plexus of bloodvessels. The secretion is oily, and resembles that of the Meibomian follicles.

No eyelids exist in Ophidia, which gives the stony aspect to their physiognomy, and contributes to the fascination of their steady gaze.

(a) Bronn, "Thier Reich," vol. vi., page 302.

(b) "Ueber den Mechanismus der Nickhautbewegung beim Frosch." Ber. üb. die Verhand. der Naturf. Gesells. zu Freiberg, vol. i., page 391. 1862.

In Snakes, the lacrimal apparatus consists of a lacrimal gland, the conjunctival sac, and the lacrimal duct or passage. The lacrimal gland is of remarkable size, being at least as large as the globe of the eye. It is situated behind the eye and the post-orbital ligament, and is often prolonged posteriorly to a considerable distance beneath the anterior temporal muscle. It attains its greatest size in the Colubers, Pythons, and other Constrictors, and in these contributes its secretion to that of other sources of lubrication of the mouth during the long and difficult act of deglutition. It is generally less developed in the venomous snakes. It is in contact anteriorly with the conjunctiva, through which membrane its numerous excretory ducts pass. It presents the characters of an acinous gland, and is invested by a delicate layer of connective tissue. Its secretion is poured into the conjunctival sac, which is large, extends far back into the orbit, and has no opening corresponding to the palpebral fissure of the higher animals. It has, however, at its anterior and lower part a small single opening or pore—the *punctum lacrimale*,—which in the Python is large enough to admit a bristle. The punctum leads to a delicate membranous duct, which is the *lacrimal canal*, and which communicates with the mouth behind the premaxillary bone. The canal runs downwards and forwards, grooves the lacrimal bone, and arrives at the outer wall of the nasal fossa, where it forms a large pouch, named by Cloquet the intermaxillary sac. In the Viper and other venomous serpents the lacrimal sac opens into the nasal meatus. But in the non-venomous serpents the intermaxillary sac is situated on each side of the head, between the maxillary and palatine branches of the superior maxillary bone. The walls of the sac are very thin, and those of opposite sides communicate in front. Behind, it is prolonged between the skin and the muscles, and terminates in a *cul-de-sac*. Lastly, it communicates below with the cavity of the mouth by a narrow orifice. In some venomous snakes the mouth communicates directly with an analogous reservoir, but this sac does not appear to have any communication with the lacrimal sac. (c)

Many Saurians, as the Gecko, have no eyelids; others, as the Lizards, possess them; and we are indebted to Leydig and Weber for the best account of the lacrimal and accessory apparatus of the eye in Lizards and their allies. In these animals the eyelids are fairly well developed, and by their apposition can close the conjunctival cavity. The upper lid is supported by a dermal ossicle, the lamina superciliaris, which may be compared with the so-called tarsal cartilage of Man. The lower lid is strengthened by cartilage, which was first noticed by Dugés. The corium of each lid presents a curiously laminated structure. The cells of the cartilage are small, pointed, and resemble connective-tissue corpuscles. The lymph-like tissue is very peculiar. It exists not only in the upper and lower lids, but beneath the conjunctiva. The spaces are filled with finely granular material, making the whole resemble gland tissue. Leydig dwells upon the oedematous character that the lid presents in Man, and suggests that lymphatic spaces of a similar character may exist there. The cartilage which succeeds to the lymphoid tissue is covered with epithelium which rests directly on the cartilage. There is a large quantity of unstriated muscular tissue arising circumferentially, and running towards the lids, just beneath the skin. These fibres form a strong band at the anterior angle of the eye. Here also there is a smooth muscle which arises from the cartilaginous septum of the orbits, and is lost in front of the superior oblique muscle in the upper lid, the membrana nictitans, and the gland of Harder. A strong band of this smooth musculature runs from below into the third lid. I have mentioned these muscular fibres because Leydig is of opinion they have nothing to do with the movements of the lids, but have for their function the evacuation of the glandular secretions.

Leydig gives a good description of the *membrana nictitans* in Lizards. He points out that the external surface presents two ridges of semilunar form, which are not mere folds, but persistent formations. The first belongs to the anterior border of the lid, and is a strong two-lipped ridge, rather darkly pigmented. The second is placed further back, but is likewise arched and equally darkly pigmented. Quite different from these are a number of

(c) Milne Edwards, vol. xii., pages 115 to 119; vol. vi., page 224.



little wrinkles which occur near the posterior portion of the membrane, where it passes into the connective tissue around the eye in the retracted condition. The membrana nictitans possesses also a cartilage which, both in its form and in its histological characters, differs greatly from that of the lower lid. It is a hook or clasp-like rod which supports the lid like the rod of a curtain. Its structure is that of pure hyaline cartilage. It extends from the membrana nictitans into the gland of Harder. It is free at its two extremities. The inner surface of the nictitating membrane is lined with epithelium, characterised by the presence of a large number of goblet-cells. The fundamental connective tissue is very rich in fine elastic fibres. The membrana nictitans is connected at its lower border with a long cord-like tendon, which winds round the posterior part of the globe of the eye, close to the optic nerve. Where this tendon is continuous with the membrana nictitans it loses its cord-like character, expands into a kind of hollow cone, and runs into the two arched ridges just described, which constitute the real points of attachment of the tendon. Posteriorly, near the optic nerve it passes through a muscular loop resembling the quadratus muscle of Birds, and which is named by Weber (*Archiv f. Naturgeschichte*, 1877) the musculus bursalis, and then passes on to be attached to the wall of the orbit on its inner or nasal side, and indeed to the frontal bone. It surrounds three-fourths of the circumference of the globe. It is supplied by the sixth nerve.

The musculus bursalis of Weber arises just above the groove for the retractor oculi, or musculus choanoides, and forming a long, flat belly, proceeds towards the eyeball parallel with the fibres of the retractor, but, instead of being wholly inserted into the globe, a part of its fibres, amounting to about two-thirds, suddenly curve round the tendon of the nictitator muscle, forming a complete loop, through which that tendon passes. The bursalis muscle is therefore quite different from the musculus quadratus of Birds. Huxley, examining, probably, another species, describes a fibrous lamina as existing at this spot; and Weber says there is a connective-tissue cushion within the loop. The fasciculus of muscle which becomes detached, which is about one-third of the whole muscle, runs upwards over the tendon of the nictitator, and acts as a retractor, compensating for the unilateral action of the retractor proper. The two actions of protraction of the nictitating membrane and retraction of the globe are necessarily coincident.

Two glands are present in Lizards, a lacrimal and an Harderian gland.

The lacrimal gland lies, as usual, at the external or posterior angle of the eye, and is very small as compared with the Harderian gland. It consists of short tubes bifurcated at their extremity, which do not unite to form a single duct, but form groups discharging themselves by several openings. The conjunctiva in the vicinity of the lacrimal gland contains layers of smooth muscle. It is supplied, according to Weber (*Archiv für Naturgeschichte*, 1877), by the fifth nerve, and not by the first, but by the second branch to the upper lid.

The Harderian gland, or gland of the nictitating membrane, is situated at the anterior or inner angle of the eye, and is very large. It embraces the lower and posterior segment of the globe, the major portion of the gland forming its upper and back part. This gland has only one excretory duct, which Leydig states that he has followed for some distance towards the nasal cavity, but without being able to satisfy himself of the precise spot where it terminates. Weber states that it is supplied by the branch of the fifth to the lower lid, which also comes from the second branch of the fifth.

Two canaliculi exist in Lizards at the inner angle of the eye. They may be best exposed by sharply and cleanly excising the nictitating membrane, by which means their lumina are exposed lying in juxtaposition. They are lined with epithelium, which is rich in goblet-cells, and in this respect resembles that of the conjunctiva. The canaliculi are surrounded with bloodvessels, and a bristle inserted into either of them may be passed into the nose.

In regard to the lacrimo-nasal canal, an opening exists in the os lacrimale, which dilates into a wide lacrimal canal, formed by the lacrimal and prefrontal bones, and then by the superior maxillary, which forms the outer wall, situated externally to the cartilaginous framework, and bounded by

the upper jaw, which opens into the external wall of the nasal passage near its communication with the throat. These bony ducts contain the proper tear-ducts. The puncta are slit-like, and open into canaliculi, which lie close together, and run parallel to the bony opening, separated by connective tissue, and lined by goblet-cells. The superior canaliculus is the largest. After uniting they form the ductus lacrimo-nasalis, which is short and does not exhibit any sac.

The superior rectus is a flat muscle, arising from the floor of the orbit by a musculo-tendinous origin, and, running forward, is partly inserted into the sclerotic, and partly passes into the substance of the upper eyelid, blending with the fibres of the internal oblique muscle.

The internal oblique muscle, also flat, arises from the floor of the orbit by a muscular origin, and after running obliquely forwards for about the space of three-quarters of an inch, also divides into two parts—one, more internal or anterior and superficial than the other, joins with the superficial part of the superior rectus, and is apparently partly, like it, inserted into the sclerotic, and partly runs into the substance of the upper eyelid; the other, more external and deeper, passes beneath the superior rectus, and is inserted into the upper and outer quadrant of the eyeball.

The internal rectus is a round muscle. It arises from the back of the orbit at a point intermediate to the superior rectus and internal oblique, and running forwards between the globe and Harderian gland, appears, like the superior rectus, to be partly inserted into the sclerotic, and partly into the dense tissue of the eyelid near the inner canthus, upon which the Harderian gland rests.

Now turning the eye half-way round, so as to obtain a view from below, a second oblique muscle is seen, which may be termed the external oblique; it arises from the floor of the orbit, below the Harderian gland, and is inserted into the sclerotic at its inferior part, about one-third of an inch from the cornea, in company with the inferior rectus.

The inferior rectus arises from the same groove, but a little posterior to the internal oblique, and just external to the superior rectus, and is inserted with the external oblique.

The external rectus is thin, round, and small; it arises from a deep groove at the back of the orbit, and is inserted into the external part of the sclerotic.

And now there is a large retractor bulbi, which, arising again from the floor of the orbit, covers the outer and upper and lower parts of the optic nerve, around the entrance of which into the globe it is inserted. Below and in front of this is a singular thin muscle, which runs forwards between the retractor and the external rectus. This muscle divides into two portions anteriorly—one joins the external rectus at its insertion: the other runs to the external canthus of the eyelid, which it must serve to pull outwards, and perhaps to raise a little.

The nictitator arises from the inferior and inner part of the globe, just beneath the Harderian gland, and runs upwards and outwards close to the globe till it reaches the upper border of the optic nerve, from which it is separated by the retractor. It here divides: the nictitator proper runs downwards and then upwards to the inferior border of the nictitating membrane; the other part ascends suddenly, and passes to the outer canthus of the eye. The relation of this to the duct of the large lacrimal gland is very peculiar.

The eyelids of the Turtle are heavy folds of skin, the inner surface of which is lined by a mucous membrane. The lower lid is the larger of the two, and its general structure is that it presents a corium with subjacent lymph spaces.

There is also a membrana nictitans, which advances from the inner corner of the eye at the same time that the inferior eyelid rises and the globe of the eye is retracted. This triple movement is provided for by the very remarkable arrangements of the muscles. Besides the usual six muscles attached to the globe of the eye, there is a large and powerful muscle which arises more anteriorly than the retractor muscle, and to the inner side of the optic nerve by a broad origin. The fibres run outwards above the optic nerve, and almost immediately form two fasciculi, which diverge from each other. One of these curves sharply round the optic nerve, and then, widening beneath it, runs to the inner extremity of the membrana nictitans; when it contracts, the membrana nictitans rises. The other fasciculus runs outwards and somewhat upwards, then curves downwards, and is attached to the outer border of the lower lid; when it contracts, the



lower lid rises. When the protractor membrana nictitantis acts, it is probable that the retractor bulbi also contracts, and prevents injurious pressure on the eye, whilst it still aids in shielding the eye from injury.

A short but good account of the lacrimal gland of the Common Turtle has been furnished by C. Stewart,<sup>(d)</sup> who observes that, in dissecting the head of the common turtle (*Chelone midas*), it is impossible not to be struck by the great relative and absolute size of the lacrimal gland. The large size of this organ is the more remarkable since, in the water-dwelling animals, it is, as we have seen, either altogether absent or but slightly developed, the surrounding fluid answering the purposes of its secretion in protecting the eye from dust, desiccation, or loss of the transparency of the conjunctiva and cornea. He further remarks that the necessity for at least an occasional abundant lacrimal secretion in these animals is perhaps found in the fact that at certain times, especially during the breeding season, they leave the water, and remain for some time on the hot sandy banks on which their eggs are laid.

In the Turtle the gland occupies the outer or posterior part of the base of the orbit, and is covered and protected by the posterior frontal bone, which forms so large a part of the false roof of the cranium that exists in this genus and in *Chelydra*. The gland is about three times the size of the globe of the eye. It is composed of numerous closely packed lobules, which are irregularly flattened and cleft, and surround a central cone of connective tissue. Each lobule is conical in form, the apices of the various lobuli converging to a central duct. This duct is lined by columnar epithelium, with a layer of smaller cells. Tubular acini proceed directly outwards, which repeatedly branch and become reduced in size as they pass to the surface of the lobules. These acini are lined by a layer of a remarkable variety of columnar epithelium, the cells being in no place in contact with each other, but being separated by a clear space. Each cell has also deep grooves running along its sides, and at its attached end presents numerous delicate root-like processes. A section which grazes the surface of an acinus accordingly shows a number of dots corresponding with the transverse sections of these root-like processes. If it be a little deeper, each cell appears like a minute star; whereas, if the centre of the acinus be struck, a true side-view of the cells will be obtained.

Each of the lobules of the lacrimal gland of the Turtle presents the character of a tubuliferous gland. The tubules commence at the periphery of the gland-lobule by a slightly dilated extremity, which abuts upon the surrounding connective tissue investment of the lobule. It runs without changing its diameter as a cylindrical tubule for some distance, then gradually widens, and then, without anastomosing, appears to open into wider tubes.

Many irregular pigment corpuscles may be seen in the intermediate connective tissue.

The gland of Harder in the Turtle is not nearly so perfectly developed a gland as the lacrimal; it consists of a large quantity of connective tissue with acini sparingly scattered amongst them. It gives one the idea of a gland undergoing degeneration from disuse.

In the Crocodile, the structure of the eyelids, according to Hoffmann,<sup>(e)</sup> differs considerably from that of the Lizard. There is no tarsal cartilage, the lamination of the corium is not perceptible, and the large lymphatic sinuses are absent. There is a depressor of the lower lid. The upper eyelid is supported at its base by the superciliary bone and its own levator muscle. The membrana nictitans is strongly developed, but in *C. porosus* it is not provided with a cartilaginous rod. The muscle moving it arises above and in front of the optic nerve by a broad and very thin origin, then courses round the posterior part of the globe of the eye lying in close apposition to it, and then, descending slightly, terminates by a short aponeurosis in the lower extremity of the posterior border of the membrana nictitans.

The lacrimal gland is small, narrow, and elongated, with its long diameter in the axis of the orbit. It is so closely united with connective tissue that it is not easily discoverable.

The Harderian gland is large, and can be easily dissected out. It is triangular in form, with rounded angles, and concavo-

convex surfaces fitting on the globe. From its forward and outward directed basis issue a few serially arranged ducts, which open in the sinus between the membrana nictitans and the globe of the eye. The puncta lacrimalia are remarkable. Hoffmann found only one in *C. porosus*, but they vary, according to Rathke, from three to eight in different species of Crocodiles and Alligators. Thus, there are three in *Alligator lucius*, four in *Crocodylus vulgaris*, five in *Gavialis Schlegelii*, six in *Alligator punctulatus*, and six to eight in *Alligator sclerops*. They are situated on the inner surface of the lower lid, near the anterior canthus of the eye. Each leads into a small elongated oval sac, lying just beneath the connective tissue, which is again continuous with a narrow membranous tube. These tubes run forwards and downwards, and open successively into a far wider canal which runs close to, and nearly parallel with, the free border of the lid, and then inclines away from it to enter the opening which is situated at the posterior part of the lacrimal bone. Rathke was unable to find any puncta in the upper eyelid, nor was Hoffmann more successful in *C. porosus*. As soon as it has entered the lacrimal bone it expands, and then forms what Rathke terms the saccus naso-lacrimalis, which appears to be a special organ of secretion. It is composed of mucous membrane and a strong connective tissue investment, which contains pigment-cells and is vascular. Between the mucous membrane and the fibrous tissue is a closely arranged layer of glandular cauliflower-like follicles, which have a yellowish colour, and resemble in their glistening aspect fat-cells, but which yet contain no fat.

Besides these there is still a third kind of gland in Crocodiles, situated at the fold of the inferior palpebral sinus, namely, scattered acinous glands.

The necessity that exists in Birds for extremely clear and distinct vision, in order that they may obtain their food, has occasioned their eyes to be highly developed, and they have all the accessory organs that are required to keep the surface of the cornea bright and polished, and in the highest state of efficiency. They have, therefore, well-developed upper and lower lids, both of which are movable, and a nictitating membrane, and they possess both a lacrimal and a Harderian gland. No Bird is destitute of eyes or has even imperfectly developed eyes.

The lacrimal gland in Birds is smaller than the Harderian. It lies in its usual position at the upper and outer or posterior and external part of the globe. According to Owen,<sup>(f)</sup> in the Goose it is of flattened form, about the size of a pea, and discharges its secretion by a short wide duct upon the inside of the outer canthus of the eyelids. In the Vulture it appears as a small pale pink- or rose-coloured body, situated at the upper or outer part of the globe, granular in aspect, oval in form, and running off to a point towards the outer canthus of the eye, where it terminates by becoming continuous with a single duct. Its structure does not appear to present any remarkable features.

The gland of Harder in Birds presents peculiarities of structure, which have been carefully observed and described by Jules McCleod in the Duck.<sup>(g)</sup>

In this animal the gland measures 1.5 ctm. in length, and 1.6 to 1.8 ctm. in width, with a thickness of 0.2 to 5 ctm., and is therefore of considerable size. The gland is flattened between the globe of the eye and the osseous wall of the orbit, and is, so to speak, moulded on these two parts. The osseous surface is convex, the bulbar concave. The general form of the gland is crescentic, the concavity being in front and the convexity behind. The bulbar face presents near its middle a deep transverse fissure, slightly oblique from above downwards and from before backwards. The orbital face presents an analogous fissure, nearly vertical in direction, which runs upwards from the central part of the concave border. The bulbar face presents a number of small fissures limiting polygonal eminences. The orbital face presents analogous fissures, but much less marked. The difference is perhaps due to the surface on which it is moulded.

This gland discharges its product at the internal angle of the eye at the base of the nictitating membrane, and the duct is accompanied nearly to its orifice by glandular elements.

In structure the Harderian gland of the Bird differs

(d) *Monthly Microscopical Journal*, 1877, page 241.

(e) Bronn, "Thier Reichs," vol. vi., page 799.

(f) "Anatomy of Vertebrates," vol. ii., page 144.

(g) *Archives de Biologie*, 1880, page 45.



remarkably from the same gland in Mammals. In the latter it is a compound acinous gland, but in Birds, as in the Duck and Rook, it is a compound tubular gland, presenting this character in a remarkably typical manner in the Duck. It is, in fact, here formed of a number of small glandular tubes, opening by groups into common excretory ducts, around which they are disposed in whorls.

McCleod applies the term *primary* tube to each of the small simple tubes, and *secondary* tube to each of the tubes around which the primary tubes are arranged, and into which they discharge their products. These terms correspond to those of acini, primary lobuli, etc., ordinarily employed in the description of the acinous glands.

The entire gland is invested by a layer of connective tissue, which is sometimes of considerable thickness, which sends septa between the secondary tubes. These septa, in their turn, give off others of less thickness between the primary lobules.

The arrangement of the primary and secondary tubes varies somewhat according to the part of the gland examined, so that two regions may be distinguished in the gland, between which there is no well-defined limit, but which pass gradually into each other.

The *primary* tubes are arranged in a radiating manner around a common excretory duct, into which they open at a right angle, and are so numerous that from forty to fifty are seen in a single section.

The form of the tubes presents some variations, according to whether the upper or the lower portion of the gland is examined. In the lower region, which is the largest, the tubes have a straight direction; when they bifurcate, the divisions remain parallel; they only to a slight extent overlap or interlace, and are only slightly tortuous. In proportion as they reach the point of discharge they become more and more sinuous and interlace more and more. The tubes are rendered prismatic by mutual pressure, and measure on the average 25 to 35  $\mu$  in diameter; their length varies too much to allow of any average being stated. The tubes are very closely connected together. Their wall is formed of a layer of connective tissue common to two adjacent tubes. They are lined by glandular epithelium, which presents different characters according to the part of the primary tube that is examined, and these differences are associated with differences in the connective tissue of the wall.

In the *deep part* the connective tissue of the wall is much reduced. The gland cells are cylindroid; the free extremity, or that turned towards the lumen of the tube, is generally a little enlarged, so as to resemble the form of cell sometimes termed calyciform. The deep or attached extremity of the cell is usually single, but occasionally double. It may be as long as the cell, and usually forms an angle with it. These processes are imbricated. They may even interlace so that they give more surface of adhesion for the cell, and more strength and solidity to the wall. Similar cells have been found by Ranvier in the cells of the stomach of the Frog, and in the cells of the lacrimal glands of Mammals. These cells are inserted obliquely in or on the connective tissue wall, and are inclined towards the end of the tube in the secondary tube.

The limits of the cells are well defined in the deeper or attached part, but are much less distinct on the free surface. When seen *en face*, the gland epithelium presents itself under the form of a pretty regular mosaic; and on lowering the focus, polygonal areas are first seen, which correspond to the limits of the cells; and at a still lower point the cell boundaries disappear, and nuclei are only seen distributed through a mass of protoplasm. The nuclei are sometimes so closely approximated as to become flattened, and then present a polygonal or hexagonal optical section. Usually, however, they have a rounded form. When treated with 1-10th per cent. of chromic acid, the contents of the cells present a large number of large, highly refracting granulations, with some smaller ones. With absolute alcohol the contents are finely granular.

When treated with a 1 per cent. solution of osmic acid, the cells seem to contain a network with large meshes, the matter composing which is refractile; though the appearances might also be explained on the theory of their being corpuscles rendered polyhedral by mutual pressure, and placed at a little distance from each other in a refracting medium. Treatment with osmic acid also renders the cell

contour crenulated, the projections or the grooves being few in number, and most distinctly marked in the deep part of the cell. Near its free extremity they gradually but completely disappear.

The nucleus is situated in the deepest part of the cell, which is often at this point a little swollen. It is rounded or oval in form, and in some instances fills the whole cavity of the cell at this point. In this case the nuclei are flattened by mutual pressure, which explains the appearances above alluded to. The nucleus sometimes occupies the axis of the cell and is sometimes excentric. When treated with absolute alcohol, the nucleus appears finely granular, and when with chromic acid of 1-10th per cent., it presents one or several granules larger than the others, which may be termed nucleoli. Under the influence of a 1 per cent. solution of osmic acid, the nuclei present great diversities of aspect, some being homogeneous, others granular, perhaps corresponding to different phases of a process of division, or to variations in the activity of the secretory process, or to their age.

Near the point where the primary tubes open into the secondary, the connective tissue is much thicker than in the deep region of the tube. It attains its maximum thickness at its embouchure, and the cells differ from those already described in the following points:—Their transverse diameter is less. Their contours are better defined, especially at the free surface. They are arranged more vertically to the membrane. They stain more deeply with colouring agents, especially with hæmatoxylin.

*Secondary Tubes.*—In the lower part of the gland eight or ten of these tubes may be met with in one section. They are disposed in two layers. They are separated by connective-tissue septa proceeding from the envelope of the gland. This separation is complete and very well marked. But at the upper part of the organ the number of these tubes is considerably reduced—in fact, they unite to form two or three. At the same time the connective-tissue septa have become much less conspicuous, and no longer *completely* separate the several secondary tubes from each other. The lumina of the secondary tubes almost deserve the name of sinuses or confluent rather than of ducts, since these walls are made up of the walls of the primary tubes modified at their embouchure as above stated, and presenting a very irregular form; on section they present septa, which are prolongations of the walls of the primary tubes. The secondary tubes unite ultimately to form a single tube, which opens at the superior and anterior part of the gland.

Harder's gland in Birds, then, according to McCleod, is typically a compound tubular gland, even more so than the poison-glands of some snakes, for these do not present such regularity of structure.

The gland of Harder in the Duck is a compound tubular gland formed of gland-tubes disposed in whorls around common trunks, which thus form secondary tubes. The form of the primary tubes and the disposition of the secondary tubes permits the discrimination of two regions in this organ—a *superior* region, in which the primary tubes are convoluted, the secondary few in number and incompletely separated; and an *inferior*, in which the primary tubes are straight, the secondary numerous and completely separated by septa of connective tissue.

In the primary tubes two regions can be distinguished owing to differences in the characters of the gland-cells.

The gland of Harder in Birds resembles that of Reptiles in its structure, but differs completely from that of Mammals, which is an acinous gland.

In some instances transitional forms of gland are found.

In the Vulture the lacrimal gland is a small pale pink- or rose-coloured body situated at the upper and outer part of the globe. It is granulated on the surface, oval in form, running down to a point towards the outer canthus, where it terminates by becoming continuous with the duct, which opens apparently by a single aperture in the conjunctival fold at this part.

The gland of Harder is nearly circular in form, occupies the usual position below the inferior oblique muscle, and has a deep fissure running along it from before backwards, from which secondary fissures run at right angles. It is flattened, of purplish tint, and the duct opens between the nictitating membrane and the globe.

The nictitating membrane of Birds, by the neatness of the mechanism in operation when it is drawn across the eye, has



been carefully described by several authors who have written upon this class of animals, and has been a favourite example of design when naturalists adopted the teleological mode of explaining adaptation of structure to function; and it is difficult to give a satisfactory solution of its mode of development on the theory of evolution. Two muscles are engaged, the musculus quadratus and the pyramidalis; the object of the former being clearly to prevent the tendon of the pyramidalis from pressing on the optic nerve during its contraction. The arrangement of the parts is the following: A pyramidal muscle arises from the sclerotic, below and to the outer side of the entrance of the optic nerve. It ends in a long tendon, which terminates in the membrana nictitans. The position of the tendon is such, that, on contraction of the pyramidalis, the tendon would compress the optic nerve. To avoid this contingency a second muscle—the quadratus—is developed above, which, arising from the sclerotic above, descends towards the tendon and ends in a loop. Through this loop the tendon of the pyramidalis passes; and it is obvious that, by the coincident contraction of the two muscles, the membrana nictitans is drawn up and across the eye, and, on the other hand, that its tendon is prevented from pressing on the optic nerve. We may suppose, on the doctrine of evolution, how many sports or efforts of nature must have been made before this ingenious piece of mechanism can have been perfected.

The membrana nictitans in Birds—as in the Sparrow—is stated by Leydig to be composed of elastic fibres rather than of connective tissue. Some bloodvessels and nerves are also, though sparingly, distributed to it. The black pigmented border is due to the presence of pigment-cells.

It may just be remarked that there are no Meibomian follicles in Birds, or, if any—as possibly in Strix,—they are very small.

The fluids excreted by the lacrimal and Harderian glands are conveyed away from the conjunctiva by two small openings which lead into a common duct that opens into the nasal cavity.

**A MODEL MEDICAL WITNESS.**—In an excellent lecture “On Medical Evidence and Medical Witnesses” (*Boston Medical Journal*, July 26), Dr. Draper, Lecturer on Forensic Medicine at the Harvard Medical School, thus sums up the “qualities of a successful and creditable medical witness”:—“He possesses (1) the faculty of accurately observing all things about him, (2) a retentive memory, (3) sincerity of purpose and a mind unprejudiced, (4) a well-balanced temperament that will remain unmoved under circumstances of great provocation, and (5) skill in expressing tersely and intelligibly what his mind desires to impart.

**ABSENCE OF THE UTERUS.**—The *St. Petersburg Med. Woch.*, August 25, refers to an account given in a Russian journal by Dr. Tschernogubow of a woman in good health, aged twenty-four, in whom the breasts and labia were well developed, but in whom the clitoris was exceedingly small. The urethra was so dilated that the forefinger could be easily passed into the bladder, but the vagina consisted of a blind sac half a centimetre in length. An examination made through the abdominal walls and the bladder and rectum proved that no trace of a uterus could be found. Neither menses nor vicarious hæmorrhage had ever occurred, and the woman was devoid of sexual passion. She had been married six years, and her husband had often tried to introduce the penis into the urethra, causing much pain. In all other respects the woman was quite well.

**MACROGLOSSA TREATED BY PAQUELIN'S CAUTERY.**—Helferich, in 1879, employed ignipuncture with successful results in the treatment of macroglossa, and now Dr. Weizsäcker relates an equally successful case which occurred in Brun's clinic at Tübingen. The greatly enlarged tongue of a girl, five years of age, projected constantly out of the mouth, and greatly embarrassed respiration. Fourteen punctures were made with a Paquelin, from above downwards, at about a centimetre from each other, and five in a transverse direction, without a drop of blood being lost. On the third day, secondary hæmorrhage occurred from the intercommunication of three of the punctures, but this was arrested by chloride of iron. The tongue gradually diminished in size, was withdrawn within the mouth, and all embarrassment of respiration ceased.—*Centralb. f. Chirurgie*, August 18.

## A NEW SERIES OF CASES OF FILARIA SANGUINIS PARASITISM OBSERVED IN EGYPT;

WITH THE RESULTS OF EXPERIMENTS ON FILARIATED  
SUCTORIAL INSECTS.(a)

By PROSPERO SONSINO, M.D. (Pisa).

### PART I.

SINCE my previous paper on *Filaria sanguinis hominis*(b) was sent to the London Epidemiological Society, last year, I have collected a certain number of new cases, and made other observations about the passage of the embryos into gnats and other suctorial insects, so as to allow me to send another note on a subject which, as it is said by Dr. Manson in his last “Notes on *Filaria Disease*,” “is a new and an expanding one, and one concerning which fresh information, no matter how crude and imperfect, may therefore prove useful and suggestive.”

As with the previous paper, I begin by giving a synopsis of the new cases observed from March of last year to the present time.

Taking together the 22 cases observed till now,(c) it appears that in not less than 13 individuals lymphuria was observed actually (Cases 3, 4, 7, 8, 9, 14, 16, 18, 20), or was reported to have existed previously (Cases 12, 15, 17, 19). The new series shows even more clearly the frequent connexion that exists between lymphuria and the presence of *Filaria sanguinis* in the human body.

*Cases of Hæmorrhage associated with Filaria.*—In my previous communication I concluded that the principal characteristic of the disorders produced by filaria consisted in an obstruction of the lymphatics giving place to a kind of extravasation of lymph, or to external lymphorrhagia. It is true that in my first series of cases with lymphous urine it happened to me to observe some cases in which there was some blood mixed with it, viz., cases of hæmatolymphuria, but the presence of the blood was not the principal disorder, nor a constant one. If I had two cases (1st and 10th) of simple hæmaturia, these were to be referred to another parasite equally detected—I mean bilharzia. But in the new series I have had cases of hæmaturia that could not be referred to bilharzial origin. Thus, I wish now to dwell on the fact of hæmaturia or other kinds of hæmorrhage as a consequence of filaria without bilharzial disease. However, such cases are more rare than those of lymphuria, and may be considered as exceptions, yet from their importance cannot pass unnoticed. I will refer particularly to Cases 11 and 15, which illustrate better than any other such a fact.

*Case 11.*—A woman of Maltese origin, about fifty-five years of age, who had lived for a long time in Egypt, had been always careless about the water she drank. She had suffered for many months from abundant hæmaturia of unknown origin, and without relief from the remedies given her, when, in March of last year, Dr. Ambron, who was treating her, sent to me her bloody urine to be examined microscopically for the purpose of searching for bilharzia eggs. The first examination gave a negative result as to parasitism; the urine, which, when examined, was beginning to putrefy, had an alkaline reaction, and I could only ascertain a phosphatic deposit. But in the second examination, made on March 23, the urine being fresh, I found, indeed, no bilharzia eggs, but, instead, many embryonal filariæ, several of which, still living, were detected especially in the bloody clot deposited by the urine. In a third examination (March 28) the urine was still bloody, with alkaline reaction. I found again living filariæ both in the bloody clots and in the liquid. On April 5 the urine gave no microscopical appearance of blood; it was yellow, but a little smoky; reaction feebly acid. Crystals of phosphates, and other rectangular crystals (uric acid?), were found in small flocculi, with a brown matter like pigmental matter. The urine gave afterwards a deposit in which were found leucocytes, red corpuscles, but no filarial embryos. After this examination I received no more urine, as the hæmaturia had ceased entirely. At

(a) Communicated to the Epidemiological Society.

(b) “On *Filaria Sanguinis Hominis*, Lymphocæle, Lymphuria, and other Associated Morbid Disorders, etc.” Published in the *Medical Times and Gazette*, May, 1882: abstract in the *Transactions of the Epidemiological Society*, new series, vol. i.

(c) See also the Synop. is appended to the previous paper at page 149 of the above-cited *Transactions*, etc.



the end of June, 1882, having been called in by the same patient, I found that after the cessation of the hæmaturia she had suffered from dysentery, which was at an end, although she was still in a state of great weakness, with anæmia, but no functional disorder or pain in any part to indicate disease of any viscus, except a certain sensibility in the epigastrium. I gave her ethereal tincture of perchloride of iron and quinquina, and I asked for an examination of the blood with a view of ascertaining the presence or no of the filarial embryos. This examination was made about 9 p.m. on the evening of July 1, with a drop taken from a finger and spread on six slides, and several (not many) embryo filariæ were detected. Thus I myself ascertained that the parasitism was still present. After some days my patient left Cairo and Egypt, and lived many months abroad, during the general exodus caused by the insurrection; and when she had returned, being in pretty good condition, I thought it not advisable to ask for another examination of her blood.

*Case 15.*—In the following case the origin of hæmaturia was not well ascertained, and the absence of other causes led me to suspect that it was due to the filarial parasitism. A native Jew, thirty-two years of age; lymphuria many years ago, latterly ventral hæmatocelc. This very interesting case deserves to be related with every particular. On September 3 of last year I was called to visit this man, who lay in bed with fever, and pain in the belly. I found the presence of a swelling in the middle hypogastric region, extending more to the right than to the left side. On inspection, the abdomen presented just the appearance of the abdomen of a woman at her fifth month of pregnancy. There was dulness on percussion, but the swelling gave neither the resistance of a solid tumour nor the sense of fluctuation. The pain extended to all the circumference of the belly, as in the case of peritonitis. The percussion at the lower sides of the belly was tympanitic. No connexion of the swelling with the liver. There was some enlargement of the glands in the groins. It was a case that puzzled me much at the first examination. On inquiry, the patient told me that he was well till about three months before, when he began to suffer with the present illness, consisting principally of pain in the belly with recurrent attacks of fever. Then he began to perceive something wrong in the belly, and at the same time to lose flesh and to grow pale. Asking for a further history, he assured me he had in past time enjoyed pretty good health, save that many years ago (he could not say precisely) he for some time passed urine like milk, which soon became solid. When I got this last information I began to suspect I had discovered the clue to the present rather puzzling form of disease. I asked the patient to allow me to examine his blood, to which he agreed; and on September 6, at 6.30 a.m., I drew a drop of blood from a finger and spread it on seven slides, in which were found several living embryonal filariæ. I then inferred that probably this man had a disease caused by parasitism, arguing that an internal lymphorrhagia, whether from a mesenteric gland or from some other obstructed lymphatic vessel, had taken place into or behind the peritoneal cavity, giving rise to an inflammatory process, and forming as a final result an encysted morbid collection. To prove my diagnosis it would have been necessary to examine the contents of the swelling, but having said to the patient that it was necessary to examine the contents by aspiration, he refused, and preferred to recur to a native medical man, who contented himself with treating him by ointments and purgatives. The man continued in the same bad state until about the end of January last, when he called in Dr. Ahmet Bey Hamdy, the Inspector of Health in Cairo, who proposed tapping. I was sent for to be present, and on January 30 I found that the swelling in the belly was much more voluminous, but it did not offer such prominence and definite form as it had in September. The parietal veins were very visible, and two rather large ones were seen through the skin going towards the epigastrium. No fluctuation. Tapping was performed at the middle point of the line between the navel and the iliac spine; but only blood coming by the canula, the latter was at once withdrawn. Another tapping on the other side gave a like result. The few ounces of blood extracted had the appearance of common venous blood, and showed some white specks which turned out to be only fibrinous clots. At the microscopical examination, a large part of the blood corpuscles were unaltered, and I found some filariæ still living

and in full activity. I detected also some oval, pale, granulated corpuscles, with their breadth of the diameter of the blood corpuscles, and the outlines well marked but not regular. I could not ascertain what they were if not lymphatic corpuscles, or cells resulting from the disintegration of the dead filariæ. To finish with the history of the case, I will add that I have seen this man several times more lately. He has not suffered from the tapping, but his condition is rather worse, as the belly is still enlarging, and the dulness reaches now to the epigastrium. He gets thinner and thinner, and more feeble, and often has attacks of fever. Notwithstanding, he still can attend to his business a little, he has a good appetite, and the digestive functions are not much interfered with. In this case it seems to me that there is no doubt that there is an encysted collection of blood into or behind the peritoneal cavity; that this collection has formed slowly, so to say, drop by drop, and still continues to grow, from rupture of some small vessels, if not capillary ones. That the collection was constituted only of blood was shown by the tapping, that gave exit to pure blood only. The hæmorrhage has taken place slowly, otherwise it would not have happened without giving rise to symptoms of acute anæmia and its consequences. That there is still bleeding I argue from the blood not being much modified, as it is in old collections, and from the embryo filariæ being still living. It is true that the presence of filariæ in the blood extracted from the belly is not sufficient of itself to justify the conclusion that the extravasation must be ascribed to the filarial parasitism, as any hæmorrhage in a filarious individual must contain filariæ, if it happen at a time when the embryos circulate with the blood. But in this case there had been no traumatism, and the want of any other cause to which to ascribe a dropping hæmorrhage renders it likely that the parasitism is the only true one. Thus I am led to think that the filarial parasitism may in some circumstances give rise to hæmaturia or to some other hæmorrhage, just as in more frequent cases it gives rise to lymphuria or some other kind of lymphorrhagia. But what the exact condition is that gives rise to hæmorrhage rather than to lymphorrhagia will be elucidated in future time only, when the anatomo-pathological lesions consequent on filarial infections have come to be better known. It is permissible to argue, however, that in some cases, though not frequently, the adult filariæ may emigrate to some blood-vessel instead of continuing to abide in the lymphatic system. This supposition is the more likely if we refer to Dr. Lewis's first detection of the adult worm in a blood-clot(d) from a lymph-scrutum which had been removed by operation.

It is surprising that Dr. Lewis, who has observed so many individuals with filarial parasitism, has not yet met with cases of filarial hæmaturia. From this he is inclined to suspect that there is a difference between the parasite as observed by him in India, and that observed in Brazil and Africa, since the parasite in India has been observed by him to give rise only to lymphuria.(e)

*Other Cases with Hæmaturia.*—For the sake of brevity, I will not give the full history of the other cases, it being sufficient to note only some interesting features of them. In Case 12 the hæmaturia had probably been caused by bilharzia, the appearance of an old egg being found in the deposit, and symptoms of alteration of the bladder being present, as are often associated with the bilharzial disease. Hæmaturia from bilharzial disease had existed previously in Case 13, having been witnessed by myself in 1874; and even in this year (1883), though the hæmaturia has apparently ceased, I have detected once in a little deposit of the urine a bilharzia egg with the embryo still living. In Case 21 hæmaturia had existed long ago, and from the story of the patient, whom I had not visited during the presence of that complaint, I argue that it originated from bilharzia rather than from filaria, the blood being present only in the last drops of urine. In Case 22 I could not find any eggs of bilharzia in the deposit of bloody urine; but this case having only recently come under my observation, I have not yet well ascertained if there is filarial parasitism only, or

(d) See the *Lancet*, September 29, 1877: "Filaria Sanguinis Hominis (Mature Form) found in Blood-Clot in Nævoid Elephantiasis of the Scrotum," by T. Lewis, M.B.

(e) See "The Nematoid Hæmatozoæ of Man," by T. R. Lewis, M.B., in the *Quarterly Journal of Microscopical Sciences*, vol. xix., new series, page 2,6.



filarial and bilharzial combined, though the character of the hæmaturia was at the beginning that of bilharzial disease. Indeed, from what I saw, I can say that the exit of blood with the last drops of urine only is a sign rather of bilharzia than of filaria, and the abundant and abrupt hæmaturia is rather a reason for suspecting its filarial origin.

*Other Leading Particulars about the Cases of the New Series.*—As for the cases associated with lymphuria, in Case 12 lymphuria had preceded, and the patient assured me that he had suffered from it or from hæmaturia intermittently for twenty years. But when I visited the man at the Diaconess Hospital in Alexandria in April, 1882, there was present only hæmaturia with a largely developed elephantiasis scrotalis. In this case the embryo filariæ had already been detected by Dr. Murison (then assistant-physician in that hospital, now surgeon of the Victoria Hospital in Cairo) in the blood from the scrotum, and I found them, in a new examination made at 7.45 a.m., both in the blood from the scrotum and from the finger, and in another examination, at 9.30 p.m., in the blood from the finger only. The bad condition of the patient did not allow Dr. Varenhorst Bey to remove the big scrotum. Notwithstanding, I hear that the man is still living and can attend to his business. In Case 14, lymphuria had appeared about a month before the patient came to me, as a second attack; the first having happened only some months before. It is important to note that in Case 15 the man with ventral hæmatocele assured me he had suffered many years before from lymphuria without relapse. In Case 16, a man thin and emaciated, the attack of lymphuria observed by me in last October had begun in the summer before, when the man was at Malta during the insurrection, and was the first attack. In Case 17 the deposition of the man is that he had suffered only once from lymphuria, many years ago, while afterwards he enjoyed good health, as he does now, notwithstanding that in an examination of his blood made in last October at 9.30 p.m., when he came up to me with his cousin attacked with lymphuria, I found a great number of living filariæ. In Case 18, according to the patient's account, he had suffered from several attacks within these last three years. He told me he had used copaiba with some advantage. But in the last attack he was cured by me with yellow santhal oil (from twenty to twenty-five drops three times a day), and the man says that he was never cured so quickly as this time with the last medicine. But although the attack of lymphuria has ceased and his general health has a little improved, the filarial infection is still persisting, as I ascertained by an examination of his blood performed at 10 p.m. of May 20. Case 19 (the mother of the man of the preceding case) is singular, in that she asserts that she has suffered from lymphuria only once, about twenty-five years ago. The great distance in time from the attack of lymphuria to the date of the detection of the embryo filariæ leads me to think that the adult filaria can live a very long time. But we cannot be sure that in some cases successive infections of new worms may not have happened, and to judge better of the possible length of the filaria's life it would be necessary to observe how long an infected individual offered the embryo filariæ after having emigrated to a country where a new infection was not possible. Case 20 would be interesting if I could be sure of what is asserted by the father of the girl, that the lymphuria began seven years ago, and that there has been perhaps not an interval of a week in which the girl has not presented the milky urine. But I must give the account of this case with much circumspection, as I could not visit and interrogate the patient herself, her urine only having been handed to me by her father, who assures me that the girl is much attenuated and that she suffers from menorrhagia. Another assertion of the father would be very singular, and not in accordance with the generality of the cases observed by me; it is that her urine is generally more milky in the morning hours, and that strong milky urine is passed in the afternoon only when the girl has been at rest in the morning. Is it possible that the recumbent position may in this case facilitate the escape of the lymph from the ruptured lymphatics?

(To be continued.)

A COLLECTING-BOX of the Hospital Saturday Fund, from the Minories, was found to contain no fewer than 385 farthings.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,

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(Continued from page 261.)

### CHOLERA ASIATICA MALIGNA—Continued.

THOSE European and Indian observers who contend that a Cholera patient is a focus whence the disease will radiate by the admixture of Cholera dejecta with drinking-water or with dust, urge that seamen and pilgrims, coming from Cholera-impested places, convey the disease to healthy localities, having "followed the great routes of trade," which, they consider, Cholera especially besets. This opinion is assailable on various grounds. Take the following. We know that the Cholera endemic becomes very grave in Calcutta at about the middle of February. Let us, for the sake of argument, assume the possible case that epidemic Cholera will begin to prevail in England at precisely the same time. John Smith, sailor, arrives from Alexandria, which is impèsted by Cholera, at Southampton, or at any other English port, on February 12. Wherever he arrives, he will be said to have "followed one of the great routes of trade," as probably ships from Alexandria arrive every week at several English ports. His brother, Thomas Smith, sailor, arrives, also from Alexandria, on the same day, in the port of Calcutta. Both men drink and knock about on shore, are attacked with Cholera, and die. On the following day, Cholera breaks out at both ports. Now, we of Indian experience can trace perfectly the sequence of events in the case of Thomas. He also "followed one of the great routes of trade." But no Calcutta medical man will dream of asserting that he brought the endemic pestilence into that city. All will immediately agree in declaring that he fell a victim to the Cholera poison, which he found there, just as a dog dies when he is thrown into the Grotto del Cane and is choked by its gas. Why does his death precede by a day or two any Cholera death among the fixed inhabitants of Calcutta? He falls a victim to the law, illustrated by a multitude of facts like those of the cases of Colonel R —, and of the persons attacked in the Circular-road house (given in last chapter), that, in India, *the gravest and speediest incidence of a Cholera outbreak is always upon those newly arrived in the Cholera area*, especially if, as is generally the case, they be exhausted by fatigue, or be very imprudent, immediately upon arrival. Our opponents will unhesitatingly declare that John Smith brought the epidemic Cholera from Egypt to England. We "non-propagationists" will reply, as steadfastly, that it awaited his arrival in England, and that both men died under one and the same law of disease.

In the February of any year, a Calcutta medical man, addressing the sailors newly arrived, would say, "Some of you will be attacked with Cholera before this month is out, unless you are unusually prudent and careful." At a time like the present, our port authorities ought to have all recently arrived sailors duly warned and instructed where they can, with the utmost ease and readiness, obtain medicine gratis, whenever they are attacked with bowel disorder.

### Exciting Causes of Cholera.

Principal among these are *all causes tending to produce nervous depression and exhaustion*—want, excess, exposure, fatigue, panic,—and *everything which, in popular language, "disagrees" with the stomach*. A circumstance which almost invariably attends cholera, dysentery, and the gravest forms of diarrhœa in India is that, immediately the morbid process sets in, the stomach signally fails in its power to digest, and that more or less suspension of digestive power frequently continues far into convalescence. Hence the fact that, in cases of subacute (commonly termed "chronic") dysentery, when the patients are imprudent, as they mostly are, nearly every kind of undigested food may be looked for in the stools. The Chaplain of Chittagong, whose attack I have already alluded to as having occurred soon after he had



dined and gone to bed on returning from a journey, while epidemic cholera was raging in the station, vomited his plentiful meal of beef and potatoes entirely undigested, although there had been quite time enough for digestion. I carefully examined the vomit: meat and vegetable, which had been bolted hungrily in great masses, appeared quite unchanged. It appeared astonishing that keen appetite could have existed in such a condition of the system. We generally dine late in India, but those who are prudent *never eat fruit at night*. This is best taken at breakfast. All experience shows that Europeans are generally attacked with Cholera at night or in the "small hours," and natives after a full meal.<sup>(a)</sup>

I have already alluded to the fact that most of the inmates of my cholera ward in Calcutta were strangers, attacked shortly after their arrival in Calcutta. It was believed that their disease was excited by *drinking foul water* from filthy tanks, in their ignorance of better sources of supply. The majority of European cases in that institution were sailors lately arrived in port, who had been imprudent on landing, and who were frequently known to have drunk Hooghly water, taken up over the ship's side, which is often brackish, and which is always contaminated with every kind of city filth, probably including *cholera excreta*. I have already mentioned that an officer told me that he and a brother officer, having duty in an Up-Country bazaar, became so much heated and fatigued that they went into the shop of a native dealer, and asked for two pint bottles of ale. His companion emptied his at a draught. That which was poured out for my friend was so horribly decomposed that he rejected it, and asked the other how he could swallow such stuff. The reply was, "I was so thirsty that I could have swallowed anything." The poor fellow was attacked with cholera on his return to quarters, and died. An administrative medical officer, when travelling from the plains to a hill station, suffered much from thirst and, unguardedly, drank milk not long after drinking beer. He was, soon afterwards, fatally attacked with cholera. A very healthy gentleman and his wife, friends of mine, were, during part of the Mutiny, shut up in the fort at Allahabad, the sanitary condition of which was then most evil, where they endured considerable privation. As the danger lessened, the refugees were removed to neighbouring places in detachments. Mr. H.—and his wife were separated, and died of cholera in a few days, neither hearing of the other's fate. Here this disease, which prevailed sadly among the refugees, was attributed to too great freedom in eating meat, fruit, and vegetables, of which they obtained large supplies. One of the few cases of European ladies who were attacked with cholera in Calcutta during my long residence there, was one who lived in a distant suburb, Alipore, and whose seizure followed a rather fatiguing morning shopping in the town, after which mangoes were eaten freely.

I attended with a brother officer the fatal case of an English lady attacked during her first cholera season in Calcutta, after having breakfasted upon corned ox-tongue. A European man recovered, in my ward, from cholera caused, as he believed, by eating corned beef. It was thought that the lower class of butchers employ arsenic in "curing" tainted meat. *Strong purgatives, especially Epsom Salts or other hydrogogue cathartic salines*, are so notorious as exciting causes of cholera, that I, throughout my career, never gave salts or seidlitz powder. According to Indian usage, *I never gave any purgative at night*. I was called by a medical man to visit his mother, who was attacked with cholera after taking a dose of sulphate of magnesia. One of my last fatal cases in the country was that of a poor European woman, in whom the attack was excited by a dose of well-known "antibilious" pills.

#### *Variation in the Types of Cholera.*

It is needless in the present day, with the works of such observers as Macpherson, Goodeve, and Macnamara before us, to enter into a description of the common and unmistakable symptoms of Malignant Cholera—the stage of Premonitory Diarrhoea, when it is present; the Stage of Algide Collapse; and the stage of Reaction, with its perils from arrest of hepatic and renal excretion. As I emphatically observed of Indian Fevers that *the type changes incessantly*, so it is with Cholera. I always noticed a distinctly marked variation, not

only in the type of each outbreak, but also in the condition of each patient—every man's case has its own distinct individuality. Consequently, no disease stands more in need than Cholera does of special treatment according to the peculiarities and exigencies of every case.

This is a law which every observant man will be able to read clearly soon after the disease comes before him, and which is laid down by Dr. Macpherson in the following pithy words:—"In all essentials the disease is the same as when it first broke out"; but then "all observers are agreed that the cholera of one season varies from that of another, just as the character of fever changes. Some of the most striking variations are the degree of blueness of the skin, the early occurrence of collapse, the amount of vomiting and purging, or of cramps, the frequency of consecutive fever, the degree in which the disease is amenable to treatment." To these variations may be added an appearance of bile or blood in the stools, great differences in the condition of the mucous membrane and follicles of the ileum, especially as regards vascularity and exudation, a tendency to the formation of ante-mortem clots in the right heart. In one outbreak there will be a prevalence, as we begin to hope that our patients are safe, of sloughing of the cornea, which first becomes dull and sunken, evidently from arrest of nutrition. On another occasion there will be a tendency to sloughing of the scrotum. We cannot, at first, judge whether the occurrence of the stage of reaction will be early or late. In one autumnal outbreak, patients remained collapsed for three days. The tendency to serious head-complication in the stage of consecutive fever varies greatly; so also does the disposition to retention of the first urine when the bladder is full. Cholera spasm or cramp is not very common or excessive in the weak-muscle natives of Lower Bengal (who endure tetanus much better and longer than Europeans generally do) or in women. I have often thought that the fatal result was determined, in strong European sailors, by the severity of the cramps. I had two sailors lying side by side—one a perfect picture of healthy athletic muscularity; the other sickly-looking and meagre. I could only account for the death of the finer man and the recovery of his comrade upon this ground. I did not see, in Bengal, that muscle-tearing cramp which has occurred in England.

I cannot quite understand with what view the authorities, in 1840, added to the Bengal Medical Return the disease *Cholera Biliosa*. By this they may have intended to designate a form of malignant Cholera in which the stools are bile-tinged. I saw one of these fatal cases in Calcutta, and heard of another—the two examples occurring more than twenty years apart. Dr. Morehead found these cases rare. I do not think, however, that it was intended to set apart this very exceptional form of the disease, because, I repeat, it is, self-evidently, true algide Cholera wherever it occurs.

The separate heading was, doubtless, intended for those cases of violent—but, in my experience, always safe and transient—*Bilious Flux*, perhaps attended with vomiting, which are frequent among Europeans at the end of the Cold Weather, just as the Cholera Season is setting in. The liver, having been rather congested during the cold weather, suddenly relieves itself by an enormous flow of bile, which produces considerable prostration, and still more alarm. The first case I saw was treated by a native Sub-Assistant-Surgeon, who gave a scruple of calomel and the same quantity of soda. After taking this, the patient went to sleep, and was nearly well in the morning. After this I used to give the soda without the calomel;—indeed, the disease relieves itself. I used to notice that one of these thorough purgations generally left a peculiarly clean tongue, not raw, but perfectly moist and healthy. Many, when I first went to India, called this "Bilious Cholera," and I suspect that many of these cases—all of which were "cured"—were included under the head of "Cholera" in the old returns, previous to 1840, with serious detriment to the accuracy of their Cholera death-rate.

Cholera is often, but not always, ushered in by *Premonitory Diarrhoea*. This can generally be arrested and an attack of cholera prevented by the timely use of opium. Wherever cholera was prevalent in an out-district, we used to send to all the police *thannas* large stocks of "Cholera Pills" of which my friend Dr. Waring gives the prescription in his excellent work on "Bazaar Medicines"—opium, black pepper, and assafœtida, of each twenty grains; beat them well together and divide into twelve pills: of these one was the

(a) Macpherson.



dose, repeated every hour if required. With a view to speedy solution, we used to give these broken up in a tablespoonful of brandy-and-water. These pills used to be in high repute. I generally gave twenty minims of laudanum in a draught with chloric ether, sesquicarbonate of soda, chalk mixture, and cinnamon-water. Omum Water, distilled from the seeds of *Carum* (*Ptychotis*) *Ajowan*—(Waring),—is much used as a carminative vehicle in the Madras Presidency.

#### *Cholera Simplex*

Is readily distinguishable in a country like England, where malignant cholera does not appear except as an epidemic, save when a not unquestionable sporadic case occurs once or twice in a lifetime; but in Bengal, where true Cholera is constantly endemic, it is sometimes hard to differentiate the two maladies save upon a retrospective view. We are told that a patient is dying of cholera, and we find him with or without vomiting, and passing thin, copious, and almost colourless stools. He is greatly alarmed, nearly algid, and very low; has a thread-like pulse, and complains of spasms. At first sight, this may be a case of cholera. We give a dose of opium—the patient sleeps, and does well. It is noticed in these cases that there are never the characteristic rice-water evacuations of cholera. The radial pulse is not arrested for hours, and there is never true collapse. An elderly man of great scientific eminence, retired from long and very arduous service in India, suffered from most intractable chronic white diarrhoea, which was probably true Hill Diarrhoea. He remained for upwards of two years and a half in a healthy midland English town, very slowly but decidedly losing strength. He was certainly not careful as regarded his diet, and he travelled a good deal. In his second summer at home, the weather being very hot, I received a telegram saying that he was dangerously ill. I could not reach his house until after midnight. He was lying on his side, as those about him thought, in calm sleep, but was dead. I was convinced, upon inquiry, that he had been attacked with English cholera, under which his exhausted powers sank.

Persons subject to chronic diarrhoea and subacute ("chronic") dysentery, and those who are said to have "irritable bowels," are especially liable to be attacked with cholera.

*The History of Cholera, in India and elsewhere*, has found a most able illustrator in my friend Dr. John Macpherson. Here it will be sufficient to mention that its first great epidemic outbreak, in modern times, commenced at Jessore, in Lower Bengal, in the year 1817, which, as I have already shown, (b) was a season of singular zymotic activity throughout the Peninsula of India. Thenceforward it has been constantly endemic in the Gangetic Delta, rarely, but distinctly, appearing as an epidemic in that locality, as in 1849. As I have shown in a previous work, (c) the Endemic Cholera of Calcutta is most severe in the Hot Season, which extends from about the middle of February until the commencement of the Rains (about June 20). But the statistical data which I have there cited show that the disease is very destructive throughout the year in Lower Bengal. I believe that Calcutta never has a day unmarked by a Cholera death. Now and then there is a rather severe outbreak at about the close of the Rains, and another very marked but less extensive one at Christmas time. In the North-Western Provinces, Cholera begins to prevail when it is on the decline in Bengal. In the former, the disease prevails most in June, July, August, and September,—July and August being the worst months. In the N.W. Provinces the disease can scarcely be said to be endemic. There a severe epidemic is to be looked for about once in three years.

It is well known that the late Dr. James Lumsdaine Bryden devoted many years of most careful observation to the investigation of the habits of Indian Cholera. In pursuing his inquiry, he had the singular advantage of being able to trace, in the office of the Sanitary Commissioner, every movement made by Cholera in India during the lengthened period of his quest; and there cannot be a doubt that one placed as he was, with the whole of the past history of the movements of epidemic Cholera tabulated before him, and in constant receipt of official intimation of every outbreak of the disease throughout the wide field of his supervision, would be able, as he was, to predicate with considerable accuracy the probability of the appearance of the disease, at a stated

period, in any given locality, and thus to afford valid advice with regard to timing the movement of troops, the necessity for special sanitary precautions, etc.

Bryden's views, as far as he had endeavoured to lay them before the profession when his valued life was brought to a premature close, may be studied in the Annual Reports of the Sanitary Commissioner with the Government of India; in a Blue Book by Brigade-Surgeon J. Marston, 1878, Appendix No. 12, page 300; and in his own "Suggestions for the Systematic Study of the History and Relations of Cholera," in the *Indian Medical Gazette* for October 1, 1866.

Next to Fever, Cholera is the most destructive of all Indian diseases. Sir Joseph Fayrer shows that, in the year 1879, there were 270,552 deaths from this cause, out of 4,975,042 registered deaths from all causes.

I have said that in Lower Bengal the great endemic season is from the beginning of the hot weather in February until the setting-in of the Rains in the third week of June. There is generally stormy weather at about the end of the second week of March; this almost always sends in a batch of cholera cases, *palkee* (palanquin) bearers and other poor creatures whom the rough weather has chilled; then there are a few days of cool weather, in which there are very few cholera admissions; and then great heat sets in, and with it come a crowd of cholera patients. My cholera ward held twelve beds, and the cases usually came in so fast during the epidemic season that it occurred to me nearly every year that I should have to find extra accommodation; but the necessity for this always happened to be prevented by the rapidity with which patients died and left beds vacant.

When, during the very hottest weather, and when the prevalence of cholera is at its height, a storm cools the atmosphere, it, as I have already said, chills and endangers those who are most exposed; but such a change almost certainly abates, for a little time, the severity of the outbreak. Thus, I have before me a report in which it is stated that, not long since, (d) the population of Manilla was being decimated by cholera, when at the end of October (1882?) a tremendous hurricane swept over the island, almost entirely destroying the town. In less than an hour from the commencement of the storm not a single native house was left standing. But on the following day not a single case of cholera occurred, and not one had been reported since. Here we inquire—how long since? In Calcutta the *chota bursat* (little rains) occur at the height of the cholera season, at about the beginning of the last week in May. They influence the endemic in the manner which I have described; but, during the twenty days of intense heat which generally follow them, cholera is very prevalent. When the Rainy Season sets in steadily, about June 20, we almost invariably have reason to consider that "the Cholera Season" is over.

With regard to *Measures of Prevention*, I am in accord with the believers in the communicability of Cholera, in maintaining that, on the arrival of Cholera cases in ships, they ought to be treated apart. But I would do this not as a sanitary precaution, but as a means of testing the question—did these people bring Cholera into the country? I think it is certain that the segregation of those members of a household who may be attacked ought to be strongly recommended, but ought not to be made compulsory when the other members of the family are energetic and courageous, or when due assistance is obtainable. When such removal is voluntary, it is advisable, not as a means of preventing the spread of Cholera, but upon the consideration that a well-managed Cholera hospital is the best place; as, there, due attendance is available night and day. In a private house, the services of four persons—a day and a night nurse, duly instructed, and two strong men to apply friction—would be absolutely needful. (e) Soiled clothing and bedding should be burnt, because they are hopelessly nasty; not because they are fomites of propagation. Cholera excreta should be promptly removed and buried—for the same reason. The very best drinking-water, procurable at any cost, should be filtered and boiled and drunk as weak tea, not because we

(d) I have not the precise date.

(e) A European officer, attacked with Cholera, had, what is very unusual in India, three adult and active ladies constant in their attendance. I said, "If each of you will alone attend him for a given time, you will be most useful; but, if you all continue to surround his bed night and day, you will all break down in a few hours." They positively would continue to attend in this manner, and all speedily failed. One of the chief uses of a cholera hospital is the service afforded to the sick by its competent body of resolute trained attendants.

(b) "Annals of Cholera."

(c) "Means of Preserving the Health of European Soldiers in India."



have to fear the presence in it of a cholera germ, but because bad and dirty water is a powerful *exciting* cause of cholera. So are all purgative and aperient medicines, especially salines. At most, two drachms of castor oil with the same quantity of compound tincture of rhubarb, in cinnamon-water—*taken in the morning*—will suffice. Fruits and jams containing fruit-seeds should be avoided. So also should potatoes, which are certainly hurtful, almost poisonous, in dysentery. The diet should be plain, but very good. Roast and boiled and broiled fresh beef, mutton, and chicken—nothing corned or salted or smoked; well-cooked cruciferous vegetables; stale white bread (home-made if possible) and really genuine fresh butter; cold tea or, in great moderation, weak spirit-and-water. All the generally accepted rules of good sanitation, Civic, Household, and Personal, should be observed with absolute strictness.

Every member of the community may be bold in the confidence that his chances of suffering from the disease are small; and are only, if he be courageous and prudent, those which he shares with everyone else; and that his danger is not, in the very least, increased by the occurrence of cases in his household, or by visitation or attendance upon the sick. To-day (August 17), as I write this, I see it announced in the papers that, yesterday, the Khedive inspected all the Alexandrian Hospitals—sure evidence that his advisers did not consider that this humane act was attended with danger.

(To be continued.)

**KEEPING HYPODERMIC SYRINGES IN ORDER.**—In answer to the question how this is to be done, a correspondent of the *New York Medical Record* (September 1) observes:—"Of course the best way with any and all instruments is to use them. Next to that, *inspect them regularly*, once a month—not only look at them, but look at them with an oiled rag and piece of chamois skin, more carefully in summer than in winter. In considering hypodermic syringes, aspirators, etc., the instruments should be regarded in two parts—the barrels and pistons, which require the *wet* treatment; and the needles and wire, the trocar and canula, which require the *dry* treatment. If the piston-leather is old and worn out, it should be renewed; but if only dried and loose from non-use, draw a little warm water into the syringe, then, placing the finger over its end, slowly press the piston downwards through the water, which will be seen to pass between the piston and sides of the syringe. The water will now be both above and below the piston, and will cause its leather to swell quickly and make a tight joint. In order to keep it so, discharge the water from both ends of the syringe, and treat in the same manner with glycerine, which, being hygroscopic, keeps the piston-leather in good condition. Moreover, pure glycerine will not become rancid, as will oil, etc., nor will it interfere with any chemicals used hypodermically. In the larger syringes a harder fat like mutton-tallow will often cause the piston to work better than oil or glycerine. If the piston should have become so tight that it is impossible to make the glycerine pass above it, invert the syringe in glycerine, or put a few drops around the piston-rod, and then press it slowly downwards. The glycerine will follow into the upper chamber, and will ply back and forth with the piston, and keep it in order. The test for a tight piston is to put the finger over the end of the syringe and quickly pull up the piston-rod, when, if tight, a vacuum will be formed, and the piston return to fill it. The *dry* treatment for the needle consists in blowing out all liquid by several quick strokes of the piston while the needle points upwards, so that no fluid from the syringe enters it. If used but seldom, let this be done in the hot, dry air just above the lamp or gas. After removing the needle from the syringe, replace the wire. Should the morphia gradually form a crust upon the inside of the needles, hot water may be drawn through them; or a quicker and more thorough way is to get a yard of uncut hypodermic wire, fasten one end, thread the needle upon the other, and then with a few long strokes it is quickly cleansed. When one allows his patient to suffer ten or fifteen minutes' extreme pain while fixing his hypodermic syringe, or, as I have seen, a patient almost lose his life because his physician's stomach-pump would not work, it seems a duty, and but little trouble, to *inspect* for a few minutes, the first day of each month, those instruments which ought to be kept in order."

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### LIVERPOOL ROYAL INFIRMARY.

#### SERIES OF BONE AND JOINT CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Continued from page 38.)

*Case 6.—Fracture of Leg, Thigh, and Clavicle, Sprained Wrist, and Scalp Wound stripping the Bone.*

GEORGE W., aged thirty-eight, a brewer's drayman, was admitted on June 10, 1881, shortly after having been run over. The left tibia and fibula were broken about the middle, and the shaft of the left femur in its lower third—all oblique fractures, between which the leg was much contused. The right clavicle was broken about the middle, and there was on the left side a scalp wound two or three inches long, flap-shaped, and partly stripping the bone. The fractured lower limb was put up in Thomas's long knee-splint, as used ordinarily in bed; and the scalp wound well carbolicised, and treated from the bottom with boracic ointment and boracic lint, without sutures, eventually healing without complication.

After a day or two the leg fracture was separately fixed between two sheet-iron lateral splints, padded with boiler felt and boracic lint (next the skin), in addition to the splints of the same material enveloping the thigh. Around the leg a stout bandage was thus safely hitched without directly compressing the injured tissues, and extension made upon the thigh fracture as the whole limb lay in Thomas's splint, the counter-pressure being made upon the perineum by the padded ring of the splint. Previously side plasters had been fixed to the ankle and lower half of the leg, but had to give place to the above modification which worked much better.

Over the extensive ecchymosis a few bullæ formed, that were covered with boracic lint, into which some of their fluid escaped, with the effect of simple eventual healing under perfectly aseptic conditions. After the ecchymosis was gone a subcutaneous fluid collection remained about the front tibial edge, feeling and looking like a flaccid abscess. It was aspirated and found to be serous. The fractured clavicle was let alone, the patient lying on his back, and the arm of that side being confined to his side by a draw-sheet used as a binder, but the hand and forearm left free for his use.

The left wrist being found, at the first visit, to be quite disabled and painful, was kept straight and still in a splint composed of two daily newspapers folded together and applied closely as a trough, and bandaged to the hand and forearm. This injury was thus at once rendered painless, and continued so during the week or ten days required for its complete recovery. The fractured clavicle united well and speedily, though not without obvious deformity, which it was not convenient to take energetic precautions to prevent, owing to the very helpless situation that the entire confinement of that limb would have imposed.

Before July 31 sound union was found to exist in all the fractures, and the patient was now permitted to get up, wearing a Thomas's walking knee-splint, to which the weight of the body (that would otherwise have been borne on the recently fractured limb) was thus transferred during the hardening of the osseous union, for several subsequent months.

During the first week or two the patient was necessarily rather helpless, having only the right lower limb entirely free from injury. But the arms were partly available—the left above the elbow, and the right below that joint,—so that he was not entirely debarred from righting and assisting himself as he lay on his back. After the preliminary soreness and tenderness had passed off, he was able to be propped up in bed in the sitting posture—a position permitted by this method of treating fractured femur without interfering in the least with the proper position of the knee, and a great addition to the patient's liberty.

There was only about an inch of shortening on the recovery of the patient, who resumed his occupation as drayman. He was seen one day in the following year, busily engaged



outside a public-house, delivering barrels of beer from his dray, and said he was none the worse for his injuries.

*Case 7.—Fracture of Pelvis and Thigh (Upper Third)—Union—Return to Work, and Second Fracture of same Thigh (Middle Third) four months after previous Accident, etc.*

Anthony K., aged fifty-six, a bricklayer's labourer, was injured in some building operations on January 27, 1883, and was brought to hospital during the visit. He complained of his hip and thigh, chiefly, on the left side, where, on examination, there was found much tenderness, with moderate swelling, and complete disablement of the lower limb. Further manipulation of the pelvis revealed distinct mobility and crepitus at the back of the left ilium and in the ilio-pubic region in front. The thigh, moreover, did not seem all right, and was found (not without some little difficulty under the circumstances) to be also broken at or just below the great trochanter. The limb lay everted and a little shortened, but could be placed in the normal anatomical position, from which, however, it fell away when unsupported. There was also a scalp wound, which healed without need of further comment. The patient was put up in Thomas's hip-splint, and the pelvis was bound up in a draw-sheet firmly pinned. After a day or two, side plasters were put upon the thigh, and tied to the lower end of the hip-splint, after pulling the limb out to its fullest length. The shoulder-brace was removed to permit of the dead-weight extension thus promoted; for under most circumstances the absence of the shoulder-brace is followed by a gradual slipping of the hip-splint towards the foot. This tendency can thus be utilised in resisting shortening in fracture of the upper third of the femur, and even of the neck when unimpacted. It had at first been also intended to actively keep up, by additional means, such extension as might at first be necessary to counteract the shortening; but the intention was abandoned for fear of delaying the union in either pelvis or thigh, though the fear appeared afterwards to have been groundless.

So the shortening was accepted, and the case got well without complication. There was loss of movement, too, in the anterior muscles of the leg, shown by persistent drop of the foot in the pointed-down extended position. This eventually, though very slowly, disappeared. By the beginning of March he was allowed to get up, still wearing the splint, bearing his weight on the uninjured leg, elongated by a simple wooden clog about two inches thick on his boot, and using a pair of crutches. The patient was kept as long as practicable in hospital and in the convalescent institution, eventually returning to work at the end of May, having a shortening of an inch and a half or less. On May 29 he fell off a scaffold, and was admitted into hospital with a fracture of the same thigh. This time the middle of the shaft was affected, and all found sound at the sites of the previous accident. He was at once put up in Thomas's knee-splint, with hollow sheet-iron splints padded with boiler-felt and covered with boracic lint (next the skin) well surrounding the thigh. An uninterrupted recovery took place, and by the end of June good union had resulted, without any shortening in the last fracture. He was then allowed up, wearing a knee-splint a little longer than the limb. This was discarded in August, in the last week of which he was again sent to the convalescent institution, still using crutches, but no splint.

*Remarks.*—It is impossible to exaggerate the comfort and convenience, combined with an extreme degree of liberty of motion, procured to patients treated in the manner above described. They can be rolled over in bed, can place themselves upon the bed-pan, and in the case of the knee-splint can even sit up in bed, while a fracture of the femoral shaft is still proceeding, without impairing the mechanical efficiency of the treatment.

(For further particulars and illustrations see the second volume of "Transactions of the International Medical Congress," 1881, or "Surgical Cases and Essays," by the same writer.)

**VAGINITIS IN AGED WOMEN.**—Dr. Desprès drew the attention of his class to some cases of vaginitis in old women which are not referred to in books. These he has found to depend upon the urine, highly charged with urates, obtaining access to the vagina, owing to incontinence from partial paralysis of the neck of the bladder.—*Gaz. des Hop.*

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# Medical Times and Gazette.

SATURDAY, SEPTEMBER 22, 1883.

## THE WALTHAMSTOW MURDER.

THE facts of this case are very simple. The convict, William Gouldstone, who is now lying under sentence of death, has been a sober, steady workman, a good husband, and an affectionate father. He is but twenty-six years of age, and his wife had already borne him three children, when on August 1 last she gave birth to twins. After this event—a very serious one to a man whose earnings were only 25s. a week—his disposition and habits underwent a change. He left his work, at which he had always been extremely regular, and remained at home in a lethargic state. He would sit still, and when spoken to would not answer. He complained of pains in his head. On one occasion he was seen crying. Several times he talked about committing suicide. A week after the birth of the twins, he came home earlier than usual, went into his wife's bedroom and conversed quietly with her, took one of his children out of bed, went into the kitchen, and drowned the lad in a cistern. He then drowned his two other sons in the same way, went back into his wife's bedroom, and struck each of the twins on the head with a hammer, so that they died a few hours afterwards. He made no attempt at secrecy or concealment. There were several other people in the house at the time; and the midwife was actually in the bedroom when he entered, but left it in the belief that the husband wished to have some private conversation with his wife. After the murders, the convict expressed no concern, no regret, was unaffected by the distress of his wife, the reproaches of the nurse, and the presence of the policeman, but seemed to experience a feeling of relief. His expressions all convey the same notion—that he had now at length got eased from a load that he had been suffering under and had found too hard to bear. To his wife he said, "I have killed the children; I am happy now." To the policeman who arrested him he said, "I have done it; now I am happy." In the cell he said, "I have had an extra drop of drink to-day to accomplish the job. There are five of them gone to glory, and a



good job too." Not knowing whether the twins were dead or not, he said to a constable while in the cell, "I wish I had killed the little ones out of the way. I don't know if I hit them once or twice. I have had this playing [preying?] on my mind for a long time." It was further adduced in evidence at the trial that there was insanity in the families of both his parents. His mother has been insane for eighteen years, and was so at the time of the convict's birth. Her sister also is insane. A second cousin of the convict, on the father's side, likewise is insane.

The man is mad, of course. No one who has any acquaintance with insanity will have a shadow of a doubt, after reading the foregoing account, that he was suffering from an attack of acute melancholia at the time that he committed the murders. The matter is clear and certain beyond all question. The case would be an excellent typical example to quote in a text-book for students. To argue the matter would be as superfluous as to argue whether the sun is shining or not. It will be useful, however, in view of the fact that the jury arrived at a different conclusion, to point out how abundant and incontrovertible are the proofs of his insanity. The family history we may leave out of consideration. The facts that the convict's mother and mother's sister are both at the present time insane, that the former was insane at the time of his birth, and that there is a taint of insanity on the father's side also, are of course facts of the highest significance. They show that the convict must necessarily have inherited a tendency to insanity, which was likely to be called into activity by any adverse circumstances in his life; and if the direct evidence of insanity were doubtful or imperfect, it would be proper to bear this tendency in mind, and to attach to it very considerable significance. In the present case, however, evidence of this character is not needed, save as it renders more irrefragable a conclusion that, even without it, is sure; and as it gives to the case a certain academic rotundity and completeness. The conduct and demeanour of the convict before the crime may also be put on one side, and left out of account, although, had the crime never been committed, a competent alienist would have found no difficulty from these circumstances alone in certificating the unfortunate man and sending him to an asylum. When a man who has always been cheerful, industrious, sober, and regular in his habits, leaves his work without assigning any reason, sits moping all day, not answering when spoken to, crying at times, complaining of pains in his head, and repeatedly speaks of his death—wishes he were dead, mentions several ways in which he might kill himself, and shows by numerous expressions of this nature what is passing in his mind,—the merest tyro in psychiatric practice knows that there is but one safe place for such a man, and that that place is a lunatic asylum. It scarcely needs a knowledge of insanity to predict that such a man is on the brink of a terrible disaster, and that nothing but promptly placing him under supervision will save him from a speedy end. Putting aside, however, all considerations of this kind, leaving out of account the ominous family history and the unmistakable symptoms of insanity that preceded the crime, ignoring every consideration but the circumstances of the crime itself, and the demeanour and expressions of the patient after its completion, we say positively that the act itself was an insane act, and that the whole conduct of the convict on the day of the murder is abundant and superabundant evidence that he was insane. A sober and previously well-conducted man, who has had no quarrel with his wife, or with anyone else, comes home one afternoon, and, after a few minutes of quiet conversation with his wife upon indifferent matters, he kills his five children. There is no anger, no passion. He was not such a father as Francesco Cenci; on the contrary, he was

very fond of his wife, and used to be happy playing with and amusing his children. He does not benefit in any way by their death; on the contrary, he says immediately afterwards that he shall be hanged. There is no attempt at concealment; the midwife is passing to and fro between the two rooms, and the twins are killed in the very sight of the wife he so dearly loved. If this is a sane act, there is no such thing as insanity. The learned counsel for the Crown laid stress upon the contention that the prisoner had an adequate motive for the act, and the existence of an adequate motive is *primâ facie* evidence of sanity. The prisoner, according to his own confession, was appalled at the additional burden thrown upon him. Five children in three and a half years was an accumulation of responsibilities that he was unable to bear. There were three courses open to him. He might have struggled bravely with the world, and laboured to support them, as many a man under similar circumstances has done before; but this he felt he could not do. He gave up the struggle in despair; he was certain that he could never support them. What would a sane man do under the circumstances? What do many sane but unprincipled men do on like occasions? They elude their responsibilities by flight, and leave their wife and children to the tender mercies of the workhouse. Such a course never occurred to Gouldstone. His children were more than he could support. If they were dead, they would not need to be supported, and he would be free from the responsibility. He would kill them, then, and his mind would be at ease. This is the motive that the counsel for the Crown imputed to him, and imputed correctly, there is no doubt. And because the motive was clear and unmistakable, and the act was done with deliberation, and with full knowledge of the consequences, therefore, said Mr. Poland, the prisoner is sane. But is it not manifest that the motive was an insane motive, and was itself sufficient proof of insanity? The man feared that he would not be able to support his children. He feared they would starve; and he killed them to escape the responsibility of letting them die! Is this a sane motive? He knew that he would be hanged, and said so repeatedly, but the dread of the doom impending over him, and the awful responsibility that he had incurred, were nothing in comparison with the inexpressible relief he felt at the comparatively trifling responsibility that he had eluded. That he knew "the nature and quality of the act" that he was committing is certain. He knew he was killing his children, he knew it was legally wrong to do so, and he knew the penalty that inevitably awaited him. So far his reasoning carried him. What he was not able to do was to balance the responsibility that he was incurring against the responsibility that he was escaping, and to realise how enormously the former outweighed the latter. And this inability to reach this plain, patent, and obvious conclusion—the absorption of his whole mind in the contemplation of the one set of circumstances, so that the other set, although known and of almost infinitely greater importance, were utterly unappreciated—this it was that constituted his insanity. When a man has several courses open to him, and deliberately chooses that which is palpably, and manifestly, and far beyond all comparison, the worst for himself, and for all that he loves, the universal practice of mankind is to regard him as insane; and this was the action of the convict Gouldstone. Whether he had a delusion; whether he knew right from wrong; whether he could appreciate the nature and quality of his act: these are questions which have a certain speculative interest; but they fade into insignificance beside the practical question—Was he or was he not insane? To this question there can be, it seems to us, but one answer, and we anticipate with confidence that the Home Secretary will modify the sentence accordingly.



## ENTHUSIASM AND QUACKERY.

WHEN a new means of combating disease is introduced it is almost always the case that its benefits are at first over-estimated. It is unavoidable that it should be used in a great many cases for which it is not suited; for it is impossible that its limits of utility should be ascertained except by largely employing it in an experimental fashion. It is obvious also that the man who urges upon patients the use of treatment which turns out to be useless or injurious, may lay himself open to the imputation of having been actuated by motives not wholly unselfish. It is true that the system of gratuitous medical relief enables those attached to hospitals to test new plans of treatment under conditions which do not give colour to the imputation of pecuniary motives. But the value of treatment cannot be always settled by observations upon hospital patients; and too often patients and their friends—sometimes even their medical advisers—are ungenerous enough not to give credit for good intentions to the man who has advised a costly and prolonged, and to all appearance useless, treatment. There is in this point little apparent difference between honest enthusiasts and quacks; it is sometimes exactly the same for the patient, whether he fall into the hands of the one or the other: the treatment is alike useless and expensive. The difference lies in the motive; and the motive imputed will depend largely upon the charity of the critic, guided partly, no doubt, by the reputation already enjoyed by the person whose conduct is the subject of censure. Useless new treatment is, after all, no worse than useless old treatment; so that a harsh judgment is not invariably deserved because treatment is unsuccessful. The quack lives by kindling hope. When patients learn from their more honest advisers the pitiful truth that their malady is one for which art does not afford a remedy, what wonder is it that when the quack promises with assurance of manner, boldness of speech, and a glib reference to similar cases cured after all ordinary doctors had pronounced them hopeless, the patient should say to himself—"This man promises relief; all others admit that they can do nothing. I will let this man try, and if he fail I shall be no worse off than I should have been had I not gone to him"? The quack, of course, professes to employ a novel means. The characteristic which distinguishes him from the honest enthusiast is, that he knows quite well that his remedy is worthless and that his patients do not get well, and that he uses the fears and hopes of the patient for his own enrichment. But, broad as is the difference between the cunning which uses the last hope of the despairing for its own ends, and the enthusiast whose sanguine spirit leads him to expect more than he attains, the broad result to the superficial observer is much the same. Too often the "long-necked geese of the world that are ever hissing dispraise" fling taunts of quackery at the honest enthusiast; while the public, credulous as well as generous, do not see in the most unblushing of medical pretenders anything more than too great self-confidence. The difference is the less easily perceived, because the quack imitates in his style, as much as he can, the genuine man of science. The cleverer and more dangerous the charlatan, the closer does he succeed in making the resemblance. The profession knows only too well that there are quacks on the Medical Register as well as off it, and the former do the more harm, because their proceedings impair public confidence in our profession. We are told that a certain person sometimes assumes the form of an angel of light; and we do not see how we can prevent the quack being sometimes mistaken for an honest man. But we think it a grievous thing that the honest enthusiast should, from his indiscreet but philanthropic haste, be suspected of charlatanry; and therefore we would offer some remarks on

the essential difference between the real and the sham pioneer of medicine.

This difference, to our mind, is a very broad and simple one. It is, that one tells the whole truth while the other does not. In the advertisements even of the most notorious quacks there is a grain of truth. Anyone who will look at the advertisement columns of most religious newspapers and magazines will see abounding in them the advertisements of quack doctors. These advertisements commonly consist, first, of a general statement, in more or less unctuous phraseology, of what the advertised nostrum will do, and then follow reports of a number of cases, with each of which is given a name, a date, and an address; the name being often that of a person occupying a prominent position in his own locality—very frequently that of a clergyman or a dissenting minister: and these cases report striking cures which the advertiser's treatment has wrought. Now, there is no reason whatever for supposing that these cases are untrue. We have no doubt that they are perfectly correct, being some of them cases in which the remedy was suitable and did good, others examples of mistakes in diagnosis, and consequently in prognosis, made by medical men—cases, for instance, of bronchitis taken for phthisis, and pronounced, in consequence, to be incurable and certainly fatal, but, under the influence of summer weather, recovering, notwithstanding the quack medicine. The falsehood of the quack's advertisement consists, not in his saying the thing which is not, but in his suppressing the thing which is. He trumpets abroad the few dozen cases that have improved, but he says nothing about the hundreds who took his stuff and remained ill or got worse. Statements of this kind, we are sorry to say, are not confined to the advertisement columns of religious newspapers. They sometimes appear as original communications in medical journals, and in books issued by respectable publishers. The promulgators of such statements are sometimes men essentially quacks, although shielded by a diploma, and, it may be, claiming confidence on the ground of high position in the profession, here, or—as has been more frequently the case—across the Atlantic. Sometimes they come from honest enthusiasts, lacking in judgment and in knowledge of scientific method, who believe and say what is not true only because they judge hastily, not understanding how difficult it is to decide correctly a question concerning the effect of remedies. It is because therapeutic literature by the last-mentioned class of authors is so common that we have thought it desirable to call attention to the close resemblance between the lying assertions of quacks, and the loose and exaggerated statements of well-meaning but injudicious enthusiasts. We ask attention to this that we may point out how to avoid any such discreditable resemblance. It is to bear in mind that in reporting upon a new means of treatment *every case* should be recorded. It must be remembered that patients who think themselves benefited like to go on with treatment which seems to do good, while those who are not often say nothing but go elsewhere. Hence, without the most scrupulous care in seeking out results—not merely taking those which are brought to his notice—the enthusiast is likely to go wrong, to make statements which others will subsequently show to be inaccurate, and which will therefore bring discredit upon the author, will certainly damage his reputation for sound judgment, and may lead to the imputation of dishonesty. There are no questions in medical science so difficult to solve as those of therapeutics. Those most conversant with pathology know how many fallacies beset the interpretation of morbid appearances: and yet the problems of morbid anatomy are simple compared with those of diagnosis and treatment, for the pathologist can take in his hand the subject of controversy, can weigh, dissect, test,



analyse, examine with microscope or spectroscope, and so on, the altered structure. The practitioner who has to pronounce on its nature while the patient is alive can do none of these things, and has to form his judgment without their help. If we go further, and attempt to define the effect of a remedy, the imperfections of pathology and the uncertainties of diagnosis are ever present to qualify our confidence in the therapeutic conclusions we think we have reached. Some diseases, of course, are simpler than others; but, as a general rule, we think it may be said that the value of any means of treatment can only be safely estimated by watching its results in a large number of cases. It is rare for one man to be able to treat, observe, and record a very large number of similar cases, and therefore rare that one man has it in his power to establish the value of a remedy. He may go a long way towards doing so, but he will only do it by taking scrupulous pains to avoid all unconscious bias in the selection of cases for report. He must publish the *whole* truth. If he thinks that in his seemingly unfavourable cases there were special features which explained the want of effect of the new cure, he should put candidly before the profession the cases and the explanation, and not, as is sometimes done, suppress them, and publish only those which turned out well. He may be sure of this—that disease is pretty much alike the whole world over. If he will plainly and without reserve publish the whole facts, he may be sure that, when others follow him on the same line, their observations will only corroborate his, strengthen his conclusions, and add to his reputation. “A lie which is half a truth is ever the worst of lies.” That it is told with an honest intention does not make it less mischievous; and those who do not know the author may possibly not give him credit even for this much.

#### THE FIRE AT SOUTHALL PARK: WHO IS TO BLAME?

Now that the inquest on the body of the unfortunate girl who perished from the effects of the fire at Southall Park is finished, it will be proper to make comments upon the occurrence which we have hitherto withheld. The mode of management, and therefore the persons responsible for failures in the management, of lunatic asylums, varies considerably with the kind of asylum and with the part of the country in which it is situated. County and borough asylums are managed by committees of visitors, who alone are responsible for the whole of the arrangements in these institutions, and the power of the Commissioners in Lunacy with respect to such asylums is limited to advice and suggestion and recommendation: if their advice is not followed, they are, however, powerless to enforce it. Licensed houses in all parts of the kingdom, save the Metropolitan District, are licensed by the justices at quarter sessions, a committee of whom are the Visitors of the house, and have power, not indeed directly to manage the house, but to make such recommendations as they see fit, and if these recommendations are not attended to they can refuse to renew the annual licence, or can even recommend the Lord Chancellor to revoke it. With respect to these houses the Commissioners in Lunacy have equal powers with the Visitors to recommend to the Lord Chancellor the revocation of the licence; and the responsibility for the management of such institutions lies therefore primarily on the licensee, but ultimately is pretty equally divided between the Visiting Justices and the Commissioners in Lunacy. Licensed houses which, like that at Southall Park, are within the Metropolitan District, stand upon a different footing. Such houses have no committee of visitors. They are licensed by the Commissioners in Lunacy, who alone, after the licensee, are responsible for their proper management, and whose power, backed as it may be by a

recommendation to the Lord Chancellor to revoke a licence, is plenary. It is enacted that every such house shall be visited by two of the Commissioners four times every year, and in addition by at least one Commissioner twice a year, making six visits in all. They have therefore ample opportunity of making themselves acquainted with the structure and management of these institutions; and they are invested by the Legislature with the special duty of seeing that the structure is appropriate for the reception and care of lunatics, and that the management is properly carried out. The destruction of Dr. Boyd's private asylum and the loss of seven lives is a frightfully forcible commentary upon the manner in which this duty has been performed. The evidence of Mr. Frere, who, we are glad to say, is not one of the Medical Commissioners, was remarkable, to say the least. Although the fire had occurred more than three weeks before Mr. Frere's appearance; although the inquest had been adjourned for seven days on purpose to secure the presence of a representative of the Commissioners; and although, therefore, Mr. Frere had ample time to acquaint himself with the facts of the case, yet when he appeared before the jury, he was unable to answer questions of the most elementary character, and such as he must have known would be put to him. When was Southall Park visited last? asked the Coroner.—I cannot answer that question. Was any special report made with regard to the provisions that should be taken against fire in that asylum?—There were certain regulations made in 1869 to guard against an outbreak of fire. Have you any copy of those regulations?—They were printed. *I have no copy of them at all. The Visitors would make an entry in the visitors' book, which was destroyed in the fire.* The italics are ours; and we ask, is it possible that Mr. Frere is ignorant of the duty imposed by statute on the proprietor or superintendent of every licensed house to forward to the Commissioners in Lunacy, within three days after their visit, copies of the entries made by the Visiting Commissioners in the visiting-book? Was such a copy of the regulations sent to the Commissioners, or was it not? If it was not, how came the Commissioners to overlook so gross a breach of the law? If it was, what is the value of Mr. Frere's statement that he had no copy of them at all; and that the visitors' book was destroyed in the fire? The foreman of the jury—evidently a man of intelligence, and of considerable pertinacity—complained that some of the questions put by him to the Commissioner were fenced. This does not seem at all too strong an expression to apply to such answers as the foregoing, when the fact, which the foreman was scarcely likely to know, that the Commissioner ought to have been in possession of a copy of the regulations in question, is taken into consideration. Another statement of Mr. Frere's attracts attention. “If a small bucket of water,” he is reported to have said, “will not put out a fire, the attendants have quite enough to do to get the patients to a place of safety. That is all we feel ourselves concerned in; the safety of the building matters very little.” If this be so we should have expected that the Commissioners, in their inspection of asylums, would have made a point of ascertaining what arrangements were in force—what regulations had been made—for removing the patients to a place of safety in the event of a fire, and that they would have regarded the integrity of the building as a secondary affair. But when we turn to their last Report, just issued, we do not find that this is the case. We find that they have inquired in many asylums as to the means of extinguishing fires, as to the disposition of the hydrants, the serviceableness of the engines, and the duties laid upon the attendants, and several times they have had the fire drill performed in their presence; but we do not find that the Commis-



sioners have ever alluded in the most distant way to the removal of the patients from the scene of the fire as forming a part of those duties, nor can we ascertain that a single question has ever been asked on this point, which Mr. Frere says is "all that the Commissioners feel themselves concerned in."

On the whole, Mr. Frere's evidence was decidedly unsatisfactory, and the same must be said of the state of affairs that it discloses as to the internal arrangements of the Commission. That such a dreadful occurrence as this fire at Southall Park should be possible in any asylum, and most of all in an asylum belonging to a class that is more than any other under the direct supervision and management of the Commissioners in Lunacy, must tend to produce a very uneasy state of feeling, not only as to the possibilities of such occurrences in other asylums, but as to the efficiency of the supervision that is exercised by the Board of Commissioners.

### THE WEEK.

#### TOPICS OF THE DAY.

THE Board of Works for the Wandsworth District recently addressed a complaint to the Local Government Board on the subject of the quality of the water supplied to that portion of the metropolis by the Southwark and Vauxhall Water Company. They have now received a reply, enclosing an explanation from the Company in question, stating that the water supplied to the district is of exceptionally good quality, and leaves little to be desired. It would appear that the absence of storage reservoirs, to which we have often called attention when dealing with the monthly reports of the Metropolitan Water Examiners, formed a portion of the complaint of the Wandsworth Board, since the Southwark and Vauxhall Company explain that, while in no way admitting that the want of these reservoirs has been detrimental to the quality of their supply, they have only deferred the construction of additional works until they could avail themselves of the experience of a system of underground filtration recently carried out by the Grand Junction Company, and they have now signed a contract for the construction of similar works, whereby they believe that they will be rendered independent of the conditions of the river, and have at all times an ample supply of pure water, without any risk of the filter-beds being affected by floods or any other contingency. This work, they state, has already been commenced.

Dr. Sutton, Medical Officer of Health for the parish of Shoreditch, recently reported to the Vestry of that parish that the death-rate of the district for the month of August had been 22.6 per 1000 of the population, which was above the average of the past five years. The death-rate for the corresponding period of last year was 19.6 per 1000, or 2.6 below the average of the preceding quinquennial period. Mr. Adams having called attention to what he termed the "unsavoury smells" of the parish, arising from the drains, Mr. Waynforth explained, on behalf of the Sanitary Committee, that every gully in the parish had been flushed, but what was really needed was a proper ventilation of the sewers. On this, Mr. Turner, the Shoreditch member of the Metropolitan Board of Works, urged that before the Vestry proceeded to take steps to ventilate the sewers, by means of air-shafts they should think twice. Sir Charles Dilke, the President of the Local Government Board, had stated distinctly that no competent engineer was satisfied with any plan that had as yet been proposed for the accomplishment of the better ventilation of the sewers of the metropolis. Mr. Waynforth further added that the sanitary staff of Shoreditch parish, which had been augmented for the summer work, had sedulously attended to the promotion

of the public health, and would be prepared with a satisfactory report, which would bear comparison with any other East-end parish.

The sanitary authorities of St. Pancras have lost no time in dealing with the outbreak of typhoid fever in Camden Town; a largely augmented staff of officers have been engaged for some days in making a partial house-to-house inspection. Their inquiries have elicited the fact that the epidemic has been more widely spread than was at first imagined, and that the published statements respecting it, instead of being exaggerated, have been considerably below the mark. At a special meeting recently held by the Sanitary Committee, Mr. Robinson, the chairman, said he was sorry to have to state that it was found that no less than 250 persons had been attacked by the epidemic in that parish, and, so far, the number of fatal cases had been thirty. Throughout the district, however, it might be said, he thought, that the epidemic had been successfully checked, and as within the last few days there had been no fresh cases, it was considered that there was now no danger of any renewed outbreak. Mr. Robinson further stated that it was the intention of the Medical Officer of Health, Mr. Shirley Murphy, when he had completed his inquiries and felt himself in a position to make a statement, to issue a report which would make the public acquainted with the course of the epidemic, and the source whence it had originated.

Mr. W. J. Payne, the Coroner for the Borough, has apparently taken upon himself to do away with the long-established custom of "viewing the body" in all cases of inquests. It must be assumed that he has assured himself of the legality of the innovation thus introduced; but if so, it is strange that he should have spoken of the custom as one "required by the law." Briefly, the circumstances were as follows:—At an inquest held on the body of Elizabeth Weller, aged thirty-eight, the husband stated that his wife had been ailing for some time past, and had been an out-patient at the Royal Free Hospital. A few days ago, witness, who had been in the country, returned home in consequence of a telegram informing him that his wife was dangerously ill. He found her in a dying state, and she expired a few hours after his arrival. A medical man deposed that he had seen the deceased shortly before her death, and considered that she died from an ulcer in the stomach. The Coroner remarked that in this case the husband had declined to allow the body to be removed to the mortuary, consequently the jury had been unable to view the remains as they were required to do by law. If they thought it necessary that they should see the body they would have to make a long journey to the house where the deceased was lying, and he (the Coroner) could see no occasion for that. It was quite time the absurd custom of viewing the body was dispensed with. Years ago, when medical evidence was not forthcoming, and the jury had to depend upon the state of the body for grounds upon which to base their verdict, the custom of viewing the body was likely to be productive of some good; but things were different now, and he had no hesitation in saying that the custom ought forthwith to be abolished. Eventually the jury decided to return a verdict in accordance with the medical evidence.

A case of reckless exposure of a person suffering from small-pox was recently brought to notice at the Chester Police-court. Job Moss, landlord of the "Blomfield Arms," Bishopsfield, Chester, was charged, under Section 126 of the Public Health Act, with extreme negligence by travelling with his son while the latter was suffering from small-pox. Dr. McCann, surgeon, of Liverpool, deposed that on August 6 last, defendant's son, whom he had been attending at Liverpool, was suffering from small-pox, and



witness advised the defendant to remove him to the Workhouse or to the Mill-road Hospital; but the defendant having made up his mind to take him home, brought him to Chester by train with other passengers, and from the station to his house in a cab. No special precautions whatever were taken to avoid infecting other passengers, the defendant simply stating that he smoked a pipe in the train. The son had since died, and the defendant's wife was now seriously ill, having caught the disease. It was stated that the cab in which defendant's son was taken from the station at Chester had been thoroughly disinfected, the lining having been taken out and burnt, and the cab removed off the stands. The presiding magistrate remarked on the gravity of the offence, and inflicted a fine of 20s. and costs—a punishment not likely to make either the culprit or the public believe that he had committed any very serious offence.

The return issued by the Registrar-General for the week ended on the 8th inst. shows that the annual rate of mortality in twenty-eight great towns of England and Wales averaged 20 per 1000 of their aggregate population. The six healthiest places were Oldham, Derby, London, Cardiff, Birkenhead, and Bristol. In London 2434 births and 1257 deaths were registered. The annual rate of mortality from all causes, which had been equal to 17.9 and 17 per 1000 in the two preceding weeks, further declined during the week under notice to 16.6, a lower rate than has prevailed in any week since the end of September, 1881. During the first ten weeks of the current quarter the death-rate averaged 19.5 per 1000, against 21.6 and 18.6 in the corresponding periods of 1881 and 1882. The 1257 deaths included 1 from small-pox, 19 from measles, 43 from scarlet fever, 14 from diphtheria, 22 from whooping-cough, 1 from typhus, 35 from enteric fever, 87 from diarrhoea and dysentery, and 2 from simple cholera; thus 224 deaths were referred to these diseases, being 72 below the corrected average number in the corresponding weeks of the last ten years. The deaths attributed to diarrhoea and dysentery, which had been 63 and 74 in the two previous weeks, further rose to 87 in this week, but were then no fewer than 57 below the corrected average; 81 were of infants and children under five years of age. For the week ending September 15 the annual rate of mortality in London was again 16.6 per 1000. There was no very marked difference in the number of deaths attributed to any one cause. No death was registered from typhus; 31 were attributed to enteric fever, and 62 to diarrhoea and dysentery, 58 of the 62 having been deaths of infants and children under five years of age.

It is authoritatively stated that there has been a rapid and remarkable increase of insanity in New York, and much consideration is being given to the treatment of lunatics in consequence. On the last day of December, 1871, there were 1535 insane persons confined in asylums in the city. In the course of eight years the number had doubled, and in the current year it has reached 3600. In seven months there has been an increase of 121 patients in the male asylum on Ward's Island, and of 110 patients in the female asylum on Blackwell's Island. There is one lunatic in every 360 inhabitants in the city, while in the whole nation the average is one to 770 of the population. The increase of insanity in the whole country has been 60 per cent. in ten years, the population having increased only 26 per cent. in the same time. The ratio of increase in the city is thus more than double what it is in the nation, but there are special reasons which partially account for this. Many lunatics in the neighbouring towns, and even states, are shipped into New York and abandoned in the streets, and as their former places of abode cannot be traced, it falls to the lot of the municipality to provide for them. Great com-

plaint is made of this, as the city not only cares for all its own insane, but at the same time is made to pay nearly one-half the expense of maintaining the State asylums, to the population of which it contributes not a single patient.

The twentieth annual meeting of the British Pharmaceutical Conference was opened at Southport on the 18th inst., under the second year's presidency of Professor Attfeld, F.R.S., by whom the address was delivered. It will be remembered that this Conference is usually held so as to terminate with the opening of the meeting of the British Association, by which means its members are enabled to attend the Chemical Section of the Association. The object of the Conference is to increase the common stock of pharmaceutical knowledge, and to promote a friendly intercourse among those engaged in pharmacy. Members are encouraged to make original investigations during the year, and to forward the results in the form of papers to the annual meeting. In some cases grants of money are made to assist in defraying the cost of materials used in making investigations. The proceedings of the Conference are printed in a year-book, which also contains reports on the progress of pharmacy, materia medica, therapeutics, and chemistry, notices of new preparations and processes, and useful formulæ published at home and abroad during the year.

At the Greenwich Police-court, recently, some occupiers of houses in Brandram-road, Lee, were summoned by the Plumstead Board of Works to show cause why an order should not be made upon them to stop up a certain well and accumulation of impure water, polluted with sewage and injurious to health. Previous to and in March last there was a prevalence of typhoid fever in the part of Lee where these houses are situated, and the daughter of one of the defendants died. Through their medical officer the Board were then able to trace the origin of the fever to a well used by the inhabitants of three houses in Brandram-road. Mr. Wigner, President of the Society of Public Analysts, had declared that the water contained organic impurity and was highly dangerous. The Board had endeavoured to get the landlords of the houses to have the public water-supply laid on, but they repudiated the liability. The magistrate made an order for the well to be closed within fourteen days, and advised the defendants, in the meantime, to have the water they drank boiled and filtered.

#### COMPLAINTS AGAINST THE DRAINAGE OF TWICKENHAM.

It is rumoured that, as a result of the recent visit of Sir Charles Dilke to the Twickenham Drainage Works, a preliminary communication from the Local Government Board has been forwarded to the Urban Authority of that town, inquiring the number of houses at present connected. The sudden visit of Sir Charles (which, it is understood, was made in consequence of serious complaints from influential residents), together with various extraordinary rumours which have since been in circulation, have created some uneasiness in the minds of the ratepayers. It has been alleged that the effluent water at present discharged into the Thames is either impure, or that sewage from the houses is still allowed to flow into the river to a considerable extent; also that sickness has broken out in the neighbourhood in consequence of the offensive smells arising from the drainage. These charges are, however, denied, and it is claimed for the sewage works that they are a thorough success. With regard to the purity, or otherwise, of the effluent water, it is stated that the inspector of the Thames Conservancy has inspected the same from time to time, and has expressed his satisfaction with the quality of the water. The whole matter is expected to be discussed at an early meeting of the Local Board.



## THE HOUSES OF THE LABOURING CLASSES.

IN connexion with the movement recently inaugurated by the Labourers' Union in favour of the appointment of a Royal Commission to inquire into the sanitary condition of the houses of the labouring classes of London, a meeting was held on Saturday last at the Mission Rooms, Manor-place, Walworth, for the purpose of forming a representative committee to co-operate with the Labourers' Association in their efforts to remedy the evils complained of. The chairman of the meeting pointed out that while much had been done in recent years to improve the dwellings of the working classes, the work was not half completed. A number of unhealthy houses had undoubtedly been removed, but sufficient accommodation had not been provided for the people dispossessed, and the result was that the evil of overcrowding had become intensified in other insanitary districts, where the poor might be found herding like cattle. A resolution was eventually adopted, approving the appointment of a committee to organise a deputation to the Home Secretary on the subject.

## SCHOOL BOARD SCHOOLS AND HOME LESSONS.

THERE has been an agitation lately, at Bradford, against the overworking of School Board children by means of home lessons, and a legal opinion has been taken on the subject. In the opinion thus obtained, it appears that from one of the sections of the Education Act of 1876 the inference is drawn that the several Acts do not interfere with the common-law right of a person to dispose of the time and occupation of his child between school hours as he may please; and that a teacher who punishes a child for neglecting to prepare home lessons by command of his father, is acting outside the scope of his authority, and would be liable to a civil action, or might be summoned before a magistrate and fined for an assault, or, in a flagrant case, an indictment might be prepared.

## THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-fifth and thirty-sixth weeks of 1883, terminating August 29 and September 6, were respectively 1040 (561 males and 479 females) and 929 (518 males and 411 females); and of these there were from typhoid fever 54 and 40, small-pox 3 and 2, measles 22 and 17, scarlatina none and 1, pertussis 25 and 15, diphtheria and croup 23 and 27, erysipelas 8 and 5, and puerperal infections 2 and 5. There were also 38 and 43 deaths from acute and tubercular meningitis, 206 and 175 from phthisis, 9 and 13 from bronchitis, 58 and 37 from pneumonia, 135 and 154 from infantile athrepsia (43 and 48 having been wholly or partially suckled), and 32 (29 males and 3 females) and 20 (15 males and 5 females) violent deaths. There is nothing remarkable in the return of deaths for the thirty-fifth week, while the numbers for the thirty-sixth week are exceptionally low; infantile athrepsia, however, furnishing in the latter a large number of deaths (154), being two and a half times greater than in January, when the mean number of deaths was 64 per week. This is, however, always observed to be so at the end of the summer in Paris, and it is yet more visible in the South of France. The births for the thirty-fifth week amounted to 1279, viz., 681 males (503 legitimate and 178 illegitimate) and 859 females (451 legitimate and 147 illegitimate); those for the thirty-sixth week amounted to 1147, viz., 583 males (439 legitimate and 144 illegitimate) and 564 females (413 legitimate and 151 illegitimate). During the thirty-fifth week 97 infants were either born dead or died within twenty-four hours, viz., 50 males (29 legitimate and 21 illegitimate) and 47 females (33 legitimate and 14 illegitimate); and during the thirty-sixth week there were 79 such births, viz., 47 males (34 legitimate and 13 illegitimate) and 32 females (23 legitimate and 9 illegitimate).

## IN MEMORIAM.—CANADA.

MR. GEORGE STEPHEN, President of the Canadian Pacific Railway, has presented the sum of \$50,000 to the General Hospital, in Montreal, to be expended in erecting one of the proposed new wings in memory of the late Dr. Campbell, Dean of the Medical Faculty of McGill University. The Medical Endowment Fund, or Campbell Memorial, of the University (which was set on foot at the semi-centennial banquet of the Medical Faculty last October by the generous offer of the Hon. D. A. Smith of \$50,000, provided an equal amount could be raised by subscription), has now become an actuality; and the sum named is stated to have been handed over to the University by the hon. gentleman.

## THE CHOLERA IN EGYPT.

WE have received from the Foreign Office a copy of the further report by Surgeon-General Hunter on the cholera epidemic in Egypt. Dr. Hunter speaks in no measured terms of the utter neglect of the commonest sanitary precautions which came under his notice in the towns and villages along the Damietta branch of the Nile. One place (Tanta) alone excepted, he found the hospitals "in a more or less tumble-down, dirty condition, impregnated with foul odours, and containing beds filthy in the extreme, . . . noisome places utterly unfit for the reception of human beings." Dr. Hunter has ascertained beyond all doubt that cases of cholera occurred in Damietta as early as April last, and that cases had occasionally been seen for many years past, but these were mostly called "cholérine" by the local practitioners—a distinction in the name without any corresponding difference in the disease. The report contains a letter from Dr. Sierra to Dr. Sonsino; the report of Dr. Dutrieux, who had been employed by Shereef Pacha to inquire into the cause and origin of the epidemic; and also the report of Ahmet Chaffey Bey and Salvatore Ferrari, who commenced their labours in the confident belief that they were going to prove that the disease had been imported from India by a stoker of the steamship *Timor*, and were compelled to accept the evidence that they themselves had compiled, that there was no need to seek outside Damietta for a cause of the outbreak. But we must defer to a future day any detailed consideration of the report itself and its enclosures.

## BRITISH PHARMACEUTICAL CONFERENCE.

ON Tuesday, the 18th inst., the twentieth annual meeting of the British Pharmaceutical Conference was opened at Southport, under the presidency (for the second year) of Professor J. Attfield, Ph.D., F.R.S. The President commenced the proceedings by an address on the future supply of drugs to the public. He contended that a crisis in pharmacy is fast approaching. The aim of the Act of 1868—viz., the proper supply of trustworthy drugs—was, he said, being seriously thwarted. The Act declared that no person should assume the title of "chemist and druggist" and practise under it unless, after satisfying State examiners that he was properly qualified, his name was duly enrolled on a State register. But it was nevertheless quite possible, and did happen, that unregistered, and even utterly unqualified persons, might act as chemists and druggists. Drugs of nearly all kinds, simple and compound, excepting the few more virulent scheduled in the Pharmacy Act, were being sold by shopkeepers of all sorts—by barbers, booksellers, chandlers, drapers, grocers, hairdressers, oilmen, publicans, etc.,—and to supply these retail tradesmen, wholesale houses had arisen of whose competence there was no guarantee. These unqualified drug dealers sell the drugs at a very small profit, or even at cost price, as bait to catch customers. But the educated and qualified chemist and druggist must charge not only the



fair price for the drugs, but also for his knowledge and skill, chemical, botanical, and pharmaceutical. The public could not protect themselves against bad drugs; they were not protected by the Food and Drugs Act, for nature yields drugs varying much in quality, and analysts, as such, could not be familiar with the conditions of their purity and strength; the public could not control the importers, growers, wholesale dealers, or the manipulators; and, finally, the Pharmacy Act is incomplete. Dr. Attfield dwelt very fully on his subject, showing the various and great evils arising to the public and to pharmacy from the existing state of things; and, in conclusion, pointed out the remedy for these evils, viz., an extension of the principle and letter of the Pharmacy Act. "A score of medicinal substances," he said, "were deemed poisons, and were to be sold retail, as a rule, only by registered chemists and druggists. Let that list be considerably extended, saving all rightful interests. Let the retail sale in open shop of most of the simple and compound medicines of the British Pharmacopœia be carried on only by registered chemists and druggists. The machinery of the Pharmacy Act is ample if inspectors be employed to see that unqualified traders do not infringe it. In sparsely populated districts let drugs be sold by unregistered persons in secured packages, but only as agents for responsible and registered chemists." Dr. Attfield's address contains a large amount of carefully gathered information, and deserves to be thoughtfully read by everyone. In the more part of what he says we entirely agree with him; but unless the public at large can be seriously aroused to a recognition of the evils he points out, it will be to the last degree improbable that the present Government will trouble themselves about the matter.

#### TYPHOID FEVER IN PARIS.

DR. BERTILLON has just communicated to the Commission for the Sanitary Improvement of Paris the annual number of deaths from typhoid fever, which have occurred in Paris during the years 1865-82 (with the exclusion of the abnormal years 1870 and 1871). There were in—

1865	...	...	1,161 or 64.5 per 100,000 inhabitants.		
1866	...	...	967 "	53	"
1867	...	...	925 "	50	"
1868	...	...	988 "	53	"
1869	...	...	1,080 "	57	"
1872	...	...	1,007 "	54	"
1873	...	...	1,021 "	54	"
1874	...	...	823 "	43	"
1875	...	...	1,048 "	53	"
1876	...	...	2,032 "	102	"
1877	...	...	1,201 "	59	"
1878	...	...	855 "	41	"
1879	...	...	1,119 "	52	"
1880	...	...	2,120 "	97	"
1881	...	...	2,121 "	96	"
1882	...	...	3,403 "	150	"

#### SANITARY EXHIBITION IN GLASGOW.

THE allocation of space in the Burnbank Drill Hall for the exhibition in connexion with the Congress of the Sanitary Institute of Great Britain was concluded on Saturday last week. In addition to the Hall itself, which is 190 ft. long by 83 ft. wide, a pavilion, 83 ft. by 27 ft., has been provided at one end, and an annexe, 100 ft. by 27 ft., in front. Considerable quantities of appliances have already been received from British and French exhibitors, and nearly all the others are expected to be forwarded during the course of the week. The judges are to make a preliminary inspection some time this week, and the opening ceremony will be performed by Lord Provost Ure on the 25th inst., and the Exhibition continued until the 20th prox.

#### THE INSANE AS WITNESSES.

THE United States Supreme Court have recently decided that—"A lunatic or person affected with insanity is admissible as a witness if he have sufficient understanding to apprehend the obligation of an oath, and to be capable of giving a correct account of the matters which he has seen or heard with reference to the questions at issue; and whether he have that understanding is a question to be determined by the Court upon examination of the party himself, and any competent witnesses who can speak to the nature and extent of his insanity."

#### PROFESSOR CHEVREUL.

THE *Union Médicale*, writing of this distinguished *savant* on September 4, observes:—"M. Chevreul, Member of the Académie des Sciences, and Director of the Muséum d'Histoire Naturelle, enters to-day on his ninety-eighth year. In spite of his great age he assumes the modest title of *doyen des étudiants*, in which he glories; but we may term him far more justly the *doyen des maîtres*, for sixty years of the exceptional labours and services which he has rendered constitute one of the highest renowns of France. Born at Angers in 1786, he entered the École Centrale of that town in his seventeenth year, having Bécлар as a fellow-student. In 1811, after some remarkable investigations, he was nominated *aide-naturaliste* at the Muséum, and in the course of some years he became Examiner at the École Polytechnique, Professor of Mathematics at the Lycée Charlemagne, and the Director of the Dye Works and Professor of Chemistry at the Gobelins. In 1826 he succeeded M. Proust in the Section of Chemistry in the Académie des Sciences, and his great reputation became confirmed by his work on fatty bodies of animal origin. This important work procured for him the Argenteuil Prize of 12,000 fr. He then became the Director of the Muséum, in which post he has rendered great services; and in 1875 he received the Grand Cross of the Legion of Honour. One of the most active members of the Institute and of the Society of Agriculture, M. Chevreul still delivers his lectures at the Jardin des Plantes, and directs a portion of the works at the Gobelins."

#### LESIONS OF PERIPHERAL NERVE-TRUNKS.

UNDER this heading Dr. Weir Mitchell describes some cases of considerable interest, especially with reference to treatment (*American Journal of Medical Science*, July, 1883). The most important is that of a woman, aged forty, who had noticed at first numbness in the palm of the right hand, which she attributed to milking, as it was only during this act that it was at first perceived. The numbness was succeeded by pain, and this gradually spread to the fingers, and the pain was so great as to prevent her doing anything with her hand. Later on (after the lapse of about two years) an herpetic eruption appeared on the back of the hand, but there were no other nutritive disturbances, e.g., muscular atrophy, joint affection, glossy skin, or marks on the nails. Ultimately a small abscess formed at the spot where the herpes came, leading to the formation of an open sore. Internal remedies having failed to give any permanent relief, the continuous current was tried, one pole being placed over the median or musculo-spiral nerve, the other over the sore on the hand, but without any marked benefit. The median nerve was then stretched, and finally a portion of the radial nerve excised, after which the eruption and sore disappeared and the pain was much relieved, but the area of impaired sensation was increased rather than otherwise. The case is illustrated by diagrams of the hand, showing the area of impaired sensation before operation,



after the stretching of the median nerve, and again after the division of the radial. After each operation there was an extension of the area of impaired sensation, which did not, however, follow the distribution of any one of the three nerves supplying the hand, but invaded the territory of each in part. As regards the exact nature of the nerve lesion in this case, Dr. Mitchell does not put forward any suggestions, and the omission is the more remarkable because he had the opportunity of carefully examining the portion of radial nerve excised—an opportunity which, it cannot be doubted, he availed himself of; but no mention is made of the results of that examination. Of the other cases, one was neuralgia of the fifth nerve, and another neuralgia of the inferior dental nerve. In this latter case he tried the experiment of plugging the inferior dental canal with dental cement, to prevent the possibility of reunion of the nerve after division.

THE EARL OF LEICESTER, as President, has just added to the permanent fund of the Norfolk and Norwich Hospital the princely donation of £15,000.

WE regret to learn that Dr. Louis Thuillier, one of the principal members of M. Pasteur's commission to investigate the pathology and etiology of cholera in Egypt, has fallen a victim to that disease. He was attacked in Alexandria on the 18th inst., and died next morning, at the age of twenty-seven.

THE examination for Certificates in Sanitary Science by the University of Cambridge will begin on Tuesday, October 2. The names of candidates, who must be on the Medical Register of the United Kingdom, should be sent to Professor Liveing, Cambridge, on or before September 28.

DR. HUGHES, Superintendent of the *Hamadryad* hospital-ship, Cardiff, has received a first-class gold medal of honour from the French Government, in recognition of his devoted services to French seamen who had been brought to that vessel from time to time.

THE Library and the Museum of the Royal College of Surgeons will both be reopened on Monday, October 1.

THE buildings of Dundee College are nearly ready for the opening ceremony, which takes place on October 5. Large numbers of inquiries are being made by students, and a good attendance is expected at the opening of the classes. The attendance at the chemistry classes, it is anticipated, will be a large one, as the chemical laboratory which is being erected will be the most complete in Scotland. With the view of interesting working men in the College, a popular scientific lecture will be delivered on the evening of the opening day.

At a quarterly meeting of the Governors of the Dundee Royal Infirmary, Dundee, held on the 18th inst., it was reported that Mr. Thomas Bell, manufacturer, had given 1000 guineas for the children's ward; and it was mentioned that arrangements were being made to have the children's ward opened as soon as possible.

THREE children living in Saltcoats, Ayr, after eating some pods of the laburnum tree, were attacked with symptoms of poisoning of rather a serious nature. Severe and persistent vomiting was succeeded by deep sleep. Steps were at once taken for their relief, which happily proved successful. The three cases recovered, although at one period the recovery of one of them appeared extremely doubtful.

THE Library of the Royal Medical and Chirurgical Society was reopened on Thursday, the 13th inst.

MRS. M. W. T. CUMBERLAND has given a donation of £700 to the Warneford Hospital, in memory of her late husband, Colonel Cumberland. The interest of this sum—which has been invested—is to be applied to the maintenance of one bed in the women's ward.

## FIRES IN LUNATIC ASYLUMS.

THE recent disaster at Southall Park has brought prominently before public notice the great risk that there is of the occurrence of fires in lunatic asylums, and the terrible consequences to which these institutions, more than any others, are liable. In addition to the risks to which all inhabited buildings are subject, there is one which is peculiar to lunatic asylums, and constitutes a constant source of danger to them; we refer to the mischievous, careless, or imbecile habits of their inmates. How easily the neglect of a servant may cause a fire in an ordinary dwelling-house is matter for common remark; but a very much less degree of carelessness—a momentary relaxation of the sleepless vigilance that is required from asylum attendants—may be the origin of a far more disastrous catastrophe than can occur in any ordinary dwelling-house. Many lunatics in public asylums are permitted, and very properly, to visit the neighbouring towns and make purchases for themselves. What could be more easy than for them to include a box of matches in their purchases? Now let a careless attendant neglect to make the customary search of clothing, etc., before the patient goes to bed, and the opportunity for a terrible disaster is ready to hand. Many and many a patient, either from ignorance, or curiosity, or an impish spirit of mischief, or from a desire to make a sensation, would rejoice in the opportunity of setting his curtains or bedclothes on fire; and, a fire once started, the risks to the inmates of an asylum is out of all comparison greater than that to the inmates of any other building or institution whatever. For, in the first place, the doors are all locked. Many patients are locked by themselves in single rooms; others in dormitories containing from three or four to, it may be, ninety or a hundred patients. Not only are the doors locked, but the windows also are secured. Either they are stopped by battens so that they will open only a few inches, or they are made in immovable iron frames whose interstices are purposely made too small to permit the passage of a human being. Add to this that when the patients are liberated (granting that they could be liberated) many of them are hopelessly incapable of understanding or following any directions, and must be “personally conducted” to a place of safety, at whatever loss of time and of opportunity of liberating others (for, if not so conducted, they might as well be left in durance, as they would perish with equal certainty). Add that, even if there has been, as there ought to be, a properly organised fire drill, a considerable number of the attendants will be drafted off to the special duties in connexion with the fire-engine, and a correspondingly diminished number left to take care of the patients and to see to their removal,—and it becomes evident that scarcely any accident contains within itself so many conditions for the production of a disaster of the very utmost gravity as a fire in a lunatic asylum.

When these considerations are realised it becomes the obvious duty of every committee of visitors and of every asylum superintendent to make it the object of their first care to provide precautions against fire, and means of coping with it should it unhappily occur. When, however, we examine the recently issued Report of the Commissioners in Lunacy, we find that arrangements for this purpose are lamentably and almost universally defective. In some asylums there are hydrants inside, but none outside the building; in others there are hydrants outside, but none inside; in others again there are hydrants, but no hose to attach to them—an arrangement which is about as efficient as a bucket without a bottom. In some asylums there is no fire drill; in others the attendants and patients are exercised in working a fire-



engine that is practically useless; in few is there an efficient fire-alarm. These things ought to be remedied, and remedied at once. We would urge it with the most earnest insistence upon every medical superintendent to investigate with the utmost thoroughness the precautions that are in existence in his asylum against fire, and the appliances for dealing with such an event. By so doing, and bringing the matter under the notice of his committee, he will at least relieve himself from a terrible load of responsibility, and will in the majority of cases bring about a most important and urgent reform. The appliances necessary are few and comparatively simple. They are no doubt expensive, but in such a matter expense ought not to be, must not be, reckoned. There are things that should be done at any cost, and this is one of them. The main requisites are as follows:—Hydrants, running from the ground floor to the highest floor, should be placed at frequent intervals—not greater than 100 feet—throughout the buildings. By preference they should be on or near staircases. Each hydrant should be tapped on every floor, and beside the tap should hang the spanner and enough hose to reach at least two-thirds of the distance between this hydrant and the next. A similar series of hydrants should also be placed at intervals outside the building, at a few yards distance from it; and in convenient places, but not necessarily at every hydrant, should be kept the spanners and a coil of hose wound on a reel upon wheels. So much for the distribution; but this is of little use if the head of water or motive power is insufficient. When this is obtained, as in the Metropolitan District Asylums, from a water-tower considerably higher than the highest roof of the buildings, gravity alone will be sufficient, but in all other cases it is necessary, and even in this it is advisable, that the hydrants should be served by a steam-pump. Such pumps are now made at a comparatively small cost, in which steam may be got up and a powerful stream of water obtained in a very few minutes; and no committee can be considered to have discharged its duty fully until it has added one of these engines to the asylum under its management. Of the advisability of securing abundance of staircase-exit from the upper floors of asylums, we need not speak, since this is a very serious item in construction, and can only be properly dealt with when a new asylum is to be built; but, in all asylums sufficiently large to employ an engineer, the provision of an ample supply of hydrants and an efficient steam-pump is so obviously and urgently necessary, and can be effected at a cost so moderate in proportion to the advantage gained, that we cannot too strongly advocate its adoption. In smaller establishments, and where no such officer is employed, a steam-pump would obviously be out of place; but the hydrants and a water-supply at high pressure ought to be provided; and an "Extincteur" on each floor is an admirable and very ready means of promptly extinguishing fire. Finally, in every asylum there ought to be a fire watch on duty every night.

**ALLOA COUNTY HOSPITAL.**—On the 10th inst. the annual meeting of the subscribers to this Hospital was held, and the Treasurer's and Committee's reports were submitted and approved. The Committee reported that the Hospital was free of debt, and at the close of 1882 there was a balance of over £100 in bank. At the close of the previous year there remained a debt of £120; but through the liberality of the executors of the late Mr. C. Miller, in handing over to the Hospital the sum of £200 out of a general bequest made by that gentleman towards local charities, that has been cleared off, and a substantial balance to the good remains.

**ARNISON MEMORIAL.**—A stained glass memorial window has just been erected in the parish church of Allandale, Northumberland, as a record of the life-labours of one of the oldest medical practitioners in the North of England, the late William Campbell Arnison, born 1797, died 1883. The inscription on the brass at the foot describes him as "for upwards of fifty years surgeon in this and the adjoining parishes." It also commemorates his fifty-two years' wife, Jane, and a deceased son who died in infancy. The window is in the decorated style, of two lights. The subjects illustrated are the journey of Abraham with Isaac to offer the required sacrifice on Mount Moriah (Gen. xxii.), and the burial of Sarah in the Cave of Machpelah. Messrs. Powell Brothers, of Leeds, are the artists of the memorial.

## FROM ABROAD.

LE COMTE DE CHAMBORD.

THE last number of the *Gazette Hebdomadaire* is almost entirely occupied by a narrative (extending over more than twenty columns) by Prof. Vulpian concerning the last illness of the Count of Chambord. He observes that it had been resolved between himself and Drs. Drasche and Mayr that no account of the illness should appear from them during the life of the illustrious patient; and he even confesses to a little subterfuge in characterising it. "It had been agreed," he says, "that we should designate it as acute catarrh of the stomach of extreme intensity, and this term has been reproduced in most of the journals. Now, this designation did not faithfully represent our manner of viewing the case. We readily admitted the existence of a catarrh of the stomach, but we were of opinion that to this was joined a far more serious condition of this organ, and in our opinion the disease would terminate fatally at no distant period. It is this view which we would not render public until the end, and we never departed from our reserve." And even after death had changed the situation entirely, Prof. Vulpian abstained from all publication until he had consulted the personages immediately surrounding the Count, and the Princes, his near relations. From them he received authority to make known all that can interest the medical public. "If there are any inexactitudes in the ensuing narration, these have arisen solely from a want of precision in some of the recollections. I should mention on this point that I only saw the Prince during a few days, from August 15 to 18, and that consequently I have only learned the various circumstances from the commencement to the termination of the disease from hearsay."

We must refer our readers to the minute narrative which follows, and have only to observe that the Countess de Chambord peremptorily forbade any autopsy being made, in conformity with the wishes of the deceased, several times expressed, so that the medical attendants who had watched the case with such prolonged anxiety were reduced to attain what knowledge they could get by the glimpses afforded them during the process of embalment, which was executed by Prof. Kundrat, of Vienna, fifty hours after death. It was found that the tumour, which had given rise to so much speculation during life, consisted of greatly thickened mesentery, loaded with fat, and containing in its substance a large number of hypertrophied lymphatic glands. On opening the œsophagus, its lower fifth was found to be occupied with numerous ulcers of a rounded form and varying size. The stomach exhibited the well-known appearance of gastric catarrh, and near the pylorus were several small ulcerations. The examination had to be performed, in the presence of servants of the Countess, with the greatest haste, so that it was impossible to investigate with the necessary attention the lesions observed. At all events, one thing was incontestable, that an error in diagnosis had been made, and the cancer expected to be found in the epigastric region had no existence; but all present at the examination agreed that the error was unavoidable, and in a similar case, having the same clinical characters, would be repeated. The ulcers of the œsophagus were never suspected during life, and consisted in simple loss of substance, several of the ulcers showing the commencement of cicatrization. After referring to the relapse of the symptoms, which he suspects may have been somewhat due to incautious feeding, Prof. Vulpian thus speculates upon a possible recovery:—

"Supposing this relapse of August 9 had not occurred, was recovery possible? That is a question to which no decided answer can be given, in the ignorance we are in as to the causes of these ulcerations of the œsophagus and stomach. First, we must admit that these lesions were perhaps due to a morbid process progressing slowly (arterial alterations), and that, if this was the case, relapse might necessarily occur at any moment. If the attack of acute catarrh of the stomach and œsophagus were only in question, a relative cure might take place; but under the state in which these portions of the digestive canal would in future be, and the conditions which the arteries, the heart, and the



kidneys presented, there could only be a short and miserable survival. The digestive functions would be carried on in a painful and probably an incomplete manner; strength would be recovered with great difficulty and very slowly; and, even supposing relapse did not occur, life could not last long, menaced as it would incessantly be by the accidents which atheroma of the arteries or fatty degeneration of the heart might give rise to.

"*En resumé*, the disease of the Comte de Chambord was characterised, in the anatomical point of view, by ulcerations of the mucous membrane of the stomach, and especially of the mucous membrane of the œsophagus, and, in the clinical point of view, by an assemblage of symptoms which must inevitably lead to the admission—at the very least, as highly probable—of the existence of cancer of the stomach. We have to do, therefore, with a case that is of extreme rarity, and, if I do not deceive myself, of great interest; and it is for this reason that I have thought fit to publish its narration."

### THE SANITARY CONDITION OF THE WANDSWORTH DISTRICT.

THE Wandsworth District comprises within its area several important parishes, notably East and West Battersea, Clapham, Putney, and Streatham—including Balham and Tooting,—with a population amounting to 212,492; its sanitary condition must consequently be of no mean importance and interest. The combined report of the medical officers of health for the year 1881 shows that during the greater part of that period the district was affected by the epidemic of small-pox which prevailed generally throughout the whole metropolis; scarlet fever, whooping-cough, and measles were also extensively prevalent, and the latter was attended with unusual fatality: yet, notwithstanding these adverse influences, the rate of mortality for 1881 is the lowest recorded since the Wandsworth Board of Works assumed jurisdiction over this extensive and important suburb. The average annual death-rate of the ten years 1871-80 was 18·06 per 1000; for 1881 it was 17·16, or 3·75 lower than the rate for all London, which, with the exception of that of the year 1850, was the lowest recorded within the annals of registration. Even adding the deaths of the sixty-three inhabitants of the district who died in public hospitals out of its confines, the rate would still be but 17·45 per 1000, or only 0·45 higher than the zero in Dr. Farr's health-scale, above which deaths are held to be preventable in urban districts. The report concludes by remarking that the facts disclosed by the statistical information it affords, whether considered in relation to the lowness of the death-rate, the high birth-rate, the diminution of the fatality from epidemic diseases, the resistance to the pressure of a severe epidemic, or the other exponents of the state of the public health, lead to the irresistible conclusion that the Wandsworth District enjoyed a high sanitary status during the year 1881. The medical officers further express a hope that the same measures which have been so successfully adopted in the repression of outbreaks of contagious disease (especially those which relate to the disinfection of houses, in which they have great confidence) may be continued, since it is scarcely to be expected that, in a constantly increasing population, so low a rate of mortality as that recorded in 1881 can be maintained without a persistent employment of such measures, together with a continuous and persevering application of all those minor details of preventive sanitation, which, in the aggregate, constitute the real sanitary defences of the public health.

**SOUTH LONDON SCHOOL OF PHARMACY.**—The following prizes were presented to the successful competitors at the last session, on Wednesday, the 12th instant:—Senior Chemistry—medal, Albert Ivatt; certificate, Herbert H. Presbury. Junior Chemistry—medal, C. M. Adams; certificate, John Dickson. *Materia Medica*—medal, David Jones; certificates, Messrs. Dickson and Atkinson. Botany—medal, John Dickie; certificates, Messrs. Atkinson and Adams. Pharmacy—medal, C. M. Adams; certificate, F. W. Doubleday. Extra certificates of merit—Messrs. Stafford, Harding, Barnes, Milton, Capper, Peck, Farman, and Parker

### REVIEWS AND NOTICES OF BOOKS.

*The Mineral Waters of Europe.* By C. R. C. TICHBORNE, LL.D., M.R.I.A., F.C.S., and PROSSER JAMES, M.D. London: Baillière and Co. 1883. Small 8vo, pp. 234.

THIS handy little book, replete with sound and useful information, will be welcomed not only by the physician who may have to select a spa for such of his patients as can afford the luxury of continental travel, but as well, and even more, by the great mass of practitioners who desire to avail themselves of the same waters in the home treatment of patients, who for various reasons are debarred from the accessory benefits undoubtedly to be derived from the change of air, scene, and other accompaniments of life at a foreign watering-place.

The chemistry and the therapeutics of each class of waters are given by the authors in alternate chapters, of which the chemical are specially valuable. Many of the published analyses ordinarily attached to the bottles containing mineral waters are very incorrect, partly on account of the defective methods employed when they were made perhaps twenty or thirty years ago, and partly from the fact that mineral waters in the course of a few years undergo great alterations in their composition. The Friedrichshall water, for example, as now sold, contains 50 per cent. more of mineral constituents than when analysed by Liebig, though Sir Henry Thompson evidently had that analysis before him when he dilated on the remarkable energy of salts in natural solutions. The fact that a drachm, we will say, of sulphate of magnesia in this form is more active than a like dose from the druggist's shop is due not to any mysterious power possessed by the spring, but partly to the quantity of water, especially hot water, in which it is taken, and partly to the influence on absorption and elimination, on digestion and tissue change, exerted by the numerous other salts accompanying it. Again, Dr. Tichborne shows that, contrary to a generally received opinion, these combinations cannot be imitated by art, for we really do not know, even after the most careful analysis, in what mutual combinations the various bases and acids exist; each can be estimated, but the arrangement of them is a matter of individual conjecture. An important observation, which we do not remember having seen before, is that the so-called sulphurous, or, as Dr. Tichborne would rightly call them, sulphurated, waters often owe their distinctive character to the presence of large quantities of organic matter; in fact, they differ little from dilute sewage. And though we can bear testimony to the value of calcium sulphide in the treatment of boils, etc., which he seems inclined to discredit, there can be no doubt that the use of such a water as he describes must be injurious. Even some other waters, as the Pullna and Mattoni's Royal Hungarian, give, in the presence of albuminoid ammonia, nitrates and nitrites, evidence of organic pollution, which attention to the local conditions might easily obviate. Happily, the Hunyadi, Friedrichshall, and Æsculap are perfectly free from organic matters, and so is the Harrogate among the sulphurated waters. *Apropos* of the Æsculap, Dr. Tichborne calls attention to a ludicrous error in the labels, viz., that it contains *salicylic* acid—a mistake for *silicic*!

The authors divide mineral waters into saline, alkaline, chalybeate, sulphurated, special, and table-waters, the latter including such as seltzer and Apollinaris, and containing no more active salts than may be largely and habitually taken without injury. But it must be by inadvertence that in the introduction 1000 grains per gallon is given as a proportion not as a rule to be exceeded, the more so as later on waters with 500 to 600 are said to scarcely fall under the denomination. The *saline* waters are again divided into *bitter waters*, in which sulphates of magnesia or of soda, or both, are the chief ingredients, and the *haloids*, owing their special characters to the chlorides. Among *special* waters are included the arsenical, iodine, and bromine springs, but of the therapeutic value of these—i.e., in virtue of their special ingredients—Dr. James is justly incredulous. Only a disciple of Hahnemann could attach much value to a quarter of a grain of iodide or bromide of potassium, or to infinitesimal doses of arsenic; the Kreutznach waters, for example, come more strictly under the head of haloid salines,



and the iodine may well be ignored. In a short supplementary chapter on artificial waters, Dr. Tichborne again shows up the absurdity of attempted imitations, however honestly undertaken, and the worse than worthlessness of many fraudulent substitutes for seltzer, expressing a hope that the demand for these will be too small to encourage the trade.

We have perused the work with much pleasure, but may be allowed to suggest that, in any future edition, Dr. Tichborne, of whose skill as an analyst we have a high opinion, might with profit pay more attention to elegance of style, or at least to grammatical correctness.

*Geschichte der epidemischen Krankheiten.* Von HEINRICH HAESER. Dritte Bearbeitung. Jena: Verlag von Gustav Fischer. 1882. S. 995.

*A History of Epidemic Diseases.* By HEINRICH HAESER. Third Edition.

THIS history forms the third and concluding volume of the author's History of Medicine. He divides the work into three parts. In the first, the Epidemics of Ancient History, in the second, those of the Middle Ages, and in the third, those of Modern Times, are described. The last period occupies the greater part of the work, and 200 pages suffice for the first and second periods in consequence of the comparatively scanty records of the epidemics of ancient times. In sacred and profane literature there are allusions to pestilences which were regarded as Divine punishments for the sins of the people or their rulers; but before the time of Thucydides we have no clear description of any. He has given a full account of the plague which prevailed in Athens 430 B.C., from which he himself suffered. There is, however, much difference of opinion as to the nature of the disease. Scarlatina, yellow fever, typhus, the plague, and small-pox, have been suggested; but Haeser thinks that most probably it was typhus. Diodorus Siculus has described the plague which prevailed in the Carthaginian camp before Syracuse in 395 B.C. In this, small-pox and typhus appear to have been the prevalent diseases. The antiquity and origin of small-pox have been the subject of much investigation, and our author has diligently collated the opinions which have been expressed, and the evidence on which they are based, with the result that no positive conclusion can be formed on the subject. The first part of the work concludes with an account of "the plague of Justinian" (531-580 A.D.), which surpassed all that preceded it in virulence. It lasted with some remissions for fifty years, and caused such fearful mortality that populous cities were left waste, and wild beasts made their lair where human beings had formerly dwelt. There were probably many different epidemics during this period; but the plague undoubtedly predominated.

In the middle ages Europe was, to a large extent covered with forests and marshes; the towns were small, and built with regard to defence and economy of space rather than sanitary considerations. These conditions, with intramural interment, an enforced diet of salt meat without vegetables during the winter, and constantly recurring dearth and famine arising from bad tillage and imperfect communication, were very favourable to disease. Leprosy was endemic, small-pox, scarlatina, and measles, which were classed by the medical skill of the time as varieties of the same disease, were very prevalent; and the plague frequently recurred. Of all the epidemics of this period, the black death was the most formidable. Commencing in the East, it spread during the fourteenth century over the then known world, and its victims have been estimated by Hecker at 25,000,000. The native Irish escaped its ravages to a great extent, but their exemption was probably due to their isolation on the hills rather than to their nationality. But little is known of the nature of this epidemic, notwithstanding the abundant literature on the subject, to which Boccaccio and Petrarch (whose Laura was among the victims) contributed. Medical treatment was powerless against it, and the people in despair had recourse to self-flagellation and persecution of the Jews as the best means, in their opinion, of propitiating the Divine favour. Of the part of this work devoted by the author to epidemics of modern times, syphilis occupies a large portion, although its most virulent period certainly belongs to the middle ages. There is the usual discussion as to its origin and antiquity, and the usual result—complete uncertainty.

The disease was formerly known by many names, but the most usual was morbus gallicus, or some equivalent translation thereof. It has been suggested that "gallicus" was not originally used with any geographical meaning, but was formed from "gale," the itch; or from "galle," an oak-apple, from some resemblance in certain syphilitic eruptions. Again, there is an old Saxon word, "gále," lasciviousness, which would be an appropriate derivation. If this be correct, the subsequent geographical application of the word, from an etymological blunder, would resemble the clerical (in a twofold sense) error by which gonorrhœa was for a time transformed into gomorrhœa, and regarded as a legacy bequeathed to posterity by the inhabitants of the Cities of the Plain. Whatever its origin or antiquity may have been, it was unquestionably most virulent in Europe during the fifteenth and sixteenth centuries. After the Crusades the general immorality was very great, and the clergy seem to have been especially culpable. Haeser thinks that this may have been partly due to the humoral pathology of the time, according to which retention of the seminal fluid was considered dangerous to health and even life. Thus in the fourteenth century Magninus wrote:—"Periculum est, si per coitum non expellatur sperma, quod putrefit et ad aliquid simile veneno convertetur, et caussabit pessimas aegritudines et tandem mortem"; and Valescus of Taranta, in reference to the clergy, wrote, "Venerabiles hoc non facient causa delectationis sed ut superfluitates emittantur." In consequence of this immorality syphilis pervaded all ranks with terrible results, until fear produced a reformation of morals which other considerations had failed to effect. Fashion, as well as morality, was influenced by it, if it be correct that the customs of wearing perukes and of using scents were adopted in order to conceal the effects of this disease. In the sixteenth century the virulence of syphilis considerably diminished, probably because the people had become generally syphilitised. The epidemics of the nineteenth century compare favourably with those of former times as regards mortality. Many causes have contributed to this—partly improvement in medical diagnosis and treatment, but chiefly better drainage and cultivation of the soil, and greater attention to hygienic conditions.

This volume is an excellent conclusion to a valuable and instructive work, and the author's diligence in compiling information deserves the highest praise. One point is, however, fairly open to unfavourable criticism. Haeser attributes great influence in epidemics to atmospheric conditions due to earthquakes and volcanic eruptions. Earlier historians have carefully noted that outbreaks of pestilence have been accompanied or preceded by earthquakes, etc. When pestilence was believed to be of supernatural origin this association of ideas was intelligible. Seismology as a science is as yet in its infancy. But modern investigations tend to prove that any connexion between such natural disturbances and disease is as void of foundation as was the influence which comets and meteors were supposed formerly to have on famine and drought. More especially the researches of Höniger seem to clearly prove that the assumed extraordinary atmospheric conditions did not prevail in the pestilences of former times to the extent that has been asserted, and that there is no evidence for any "conspiracy of nature with malevolent elements against the human race."

*Du Diagnostic de l'Ectopie Rénale.* Par le Dr. FREDK. BURET. Paris: aux Bureaux du Progrès Médical, et Delahaye et E. Lecrosnier. 1883.

To make known the various symptoms produced by a displaced kidney is the object of the pamphlet before us, in which the author discusses the differential diagnosis of this affection from every other form of abdominal tumour. As he very justly observes, the chief object in recognising the affection is not so much to attempt to cure it, as that we may abstain from a useless if not positively injurious line of treatment. The author briefly reports fifty cases which he has been able to collect, many of them illustrating points in diagnosis, and he sums up the results of his labours in the following conclusions:—

1. Displacement of the kidney is relatively a tolerably common malady.
2. Its apparent rarity is owing to the fact that its existence is not always recognised.
3. To prevent mistakes in diagnosis, we must realise the



possibility that the kidney may be displaced, and we must be quite familiar with the various symptoms which this affection may present.

4. And lastly, in any doubtful case, we must limit ourselves to trying to relieve the sufferings of the patient, and be especially cautious not to interfere unless the diagnosis clearly justifies it, ever bearing in mind the old adage, which cannot be repeated too often, "*Primo non nocere*."

*Manual des Injections sous-cutanées.* Par BOURNEVILLE et BRICON. Paris: Delahaye et Lecrosnier, et Librairie du Progrès Médical. 1883.

THE administration of drugs by the hypodermic method is one that has steadily increased in favour with the profession ever since its first introduction, and there are good reasons why this should be so. In most instances we can be certain by this method of promptly producing the effect which we wish to secure—a result which can seldom be attained satisfactorily by the ordinary administration by the mouth. It is not likely, however, that the latter method will ever be entirely superseded by it—at least not for a long time to come. The association of recovery from illness (or cure, as they would put it) with the taking of physic is much too firmly engrafted in the minds of the public to be easily uprooted: one can hardly picture to oneself an out-patient coming up to the hospital without a pint bottle sticking out of his pocket.

The volume before us, which has suggested these general reflections, contains in the introduction a description of the different kinds of syringes in use, and of the mode of operation. The remarks about the necessity of determining the exact quantity used are to the point, and the suggestion to determine the weight of the quantity injected, and thus judge of its strength, is a good one. We should have hardly thought it necessary to give a caution against injecting under the skin of the nose or eyelids; but perhaps they do things differently on the other side of the Channel. We agree with the authors as to the importance of performing the injection slowly. The drugs that are used hypodermically are treated of in alphabetical order, the best modes of making the solution are detailed, and an account added of the physiological and therapeutic effects of each. The only remarks we would offer at present are that atropine has been found useful sometimes in diphtheritic paralysis, and that we think the dismissal of cod-liver oil in a single line rather unjust, seeing the amount of space given to quinine, or even that allotted to distilled water.

*The Liverpool Medico-Chirurgical Journal*, No. 5, July, 1883.

THIS number contains several papers of great merit. The first, on infarctions and embolisms of various organs, by Professor Hamilton, is, to our thinking, the most important. The object of his paper will be shown by the following quotation, where, speaking of Cohnheim's work, he says:—"He thus arrives at the conclusion that, as a result of embolic obstruction of the splenic or renal artery, a mass of hæmorrhage takes place into the substance of these organs, which he calls a *hæmorrhagic* infarction; and further, he seems to think that these wedge-shaped masses in spleen and kidney are similar in their origin to the 'hæmorrhagic infarction' of the lung—viz., that both are embolic. I may simply here repeat what I have previously stated—that I have never seen such a hæmorrhagic infarction from uncomplicated occlusion of a branch of the splenic or renal artery as he describes; and if he means to indicate that such are of constant occurrence in embolic occlusion of the renal artery, I must conclude that he is labouring under a misapprehension. Such a body as he describes is of constant occurrence in the lung along with *yellow* infarctions in the spleen and kidney; the morbid process in the second and last organs being, as I shall show, of quite a different character from the hæmorrhagic block in the first." In speaking of hæmorrhagic infarction of the lung, he says he has never been able to discover the occluded branch of artery leading to the infarct, and does not believe that anyone else has succeeded in doing so. We read: "I am firmly convinced that the wedge-shaped hæmorrhages, known as hæmorrhagic infarctions of the lung, have, as a rule, nothing to do with embolism of the pulmonary artery. They are simply pulmonary apoplexies situated at the periphery of the lung, and moulded

into a wedge-shape by the shape of the bronchus and air-vesicles into which the effused blood is poured." We fully expect that these views will be corroborated by future observers.

Dr. James Barr contributes a long article on the pathology and treatment of tubal nephritis, evidently the outcome of much thought and careful observation. Dr. Dyce Duckworth has a paper on hemiglossitis. Dr. Carter contributes some notes on therapeutics, and Dr. Oliver pleads in favour of the reality of the existence of reflex paraplegia. Dr. Campbell gives an account of four cases of prolapse of the uterus treated by Alexander's operation, and Dr. Rawdon describes the removal by abdominal section of a large renal tumour from an infant aged sixteen months. Mr. Rushton Parker contributes some remarks on imperforate rectum, with two cases successfully treated. Mr. G. A. Woods commences what promises to be a valuable communication on the anatomy, etc., of the sixth nerve.

We wish to protest, in conclusion, in the strongest manner possible, against the very objectionable practice of inserting advertisements amongst the communications. It constitutes a blot which, being quite avoidable, is therefore quite inexcusable.

## GENERAL CORRESPONDENCE.

### METAPHYSICS IN PATHOLOGY.

LETTER FROM DR. C. MERCIER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am greatly obliged to Mr. Kenneth Millican for drawing my attention to his paper on the Etiology of the Acute Specific Diseases, which I have read with much interest. In that paper the doctrine of the origin of species by evolution is definitely applied to the case of the specific diseases, and had I had the advantage of reading it before publishing the article on Metaphysics in Pathology I should certainly have credited Mr. Millican with the views that he so clearly expresses. I am, &c.,

September 5.

CHARLES MERCIER.

### TINNED PROVISIONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In *Cassell's Family Magazine* for September there is an article on the Rabbit Pest in Australia. There is one passage in it which appears to me to require clearing up in the interest both of Australian settlers and the English public. It seems that the enormous loss caused by the rabbit plague is partly compensated by the export of the dead animals to England in the shape of food, and it is stated that 100,000 rabbits were sent home in one year by the New Zealand Meat Preserving Company. But, says the author, "For my own part I should seriously object to eating New Zealand rabbits, considering that the cure now in vogue is wholesale poisoning by means of grain saturated with 'phosphorus.'"

There are others besides the author who would like to know if phosphorus in this form "may prove beneficial to human beings." I am, &c., CAUTION.

### FISH DIETARY.

LETTER FROM MR. W. TRENERRY.

[To the Editor of the Medical Times and Gazette.]

SIR,—For nearly two months past the patients of the Bristol Royal Infirmary have, with the sanction of the Faculty, been given a "fish dinner" once a week as an experiment. Up to the present time the change has been most agreeable, satisfactory, and highly appreciated by the patients. The saving in money is also considerable—nearly £4 daily in favour of fish as against butcher's meat.

For the information of other institutions, I should like to state that the weight of fish to be provided should be twice that of meat—that is to say, should the diet list demand 150 pounds of butcher's meat, then 300 pounds of fish should be ordered. We find that the change gives no additional trouble in the cooking department—in fact, rather the reverse. I am, &c., W. TRENERRY, Secretary.

Bristol Royal Infirmary, September 18.



# MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 13 :—

Greenwood, Cecil Danforth, Offerton-road, Clapham.  
Honan, Lynton Michael, High-street, Clapham.  
James, Henry Daniel, Woodland-terrace, Babbicombe, S. Devon.  
Passmore, Geo. Shapland, North Radnorhy, North Molton, N. Devon.  
Richards, William, Bath-row, Birmingham.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Dovaston, Milward Edward, University College Hospital.  
Lewis, Jenkyn, London Hospital.  
Vernon, Frederick William, London Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society, on September 13, 14, and 15, 128 candidates presented themselves; of whom 85 were rejected, and the following 43 passed, and received certificates of proficiency in General Education. (Those candidates whose names are marked with an asterisk [\*] have also passed in Elementary Mechanics.) In the First Division, none. In the Second Division, in alphabetical order, viz. :—

\*Edward Buller Allan, Valentine Evelyn Barrow, \*Louis Beckett, \*Daniel Booth, Ivan John Howard Boyton, \*Graham Wilmot Brooke, \*Frank Calder, Percy Tranto Carpenter, William Burwell Darroll, Frederick Arundel Dene, \*George Tolcher Eccles, \*William Henry Frederick Godwin, \*Arthur Stephen Hanson, Henry Hamilton, \*William Edmund Hardy, Richard McDonnell Hawker, \*Geo. Herbert Humphreys, Smith Cyril Ireland, Theophilus Nicholas Kelynack, \*Frederick William Lewitt, \*Ernest Andrew Long, \*Stoupe McChance, Matthew Lovell Mackintosh, \*Edward Charles Mahany, Charles Reginald Morley, Horace Young Nutt, John Griffiths Owen, \*Kilham Roberts, Cyril Walrond Shaw, Alexander Sharman, Gilbert Arthur Sumner, \*Jenan George Thomas, Nigel Alan Allison Trenow, \*Basil Riddell Trevelyan, \*Arthur Turner, \*Charles Stuart Vines, \*Charles Frederick Myers Ward, William Timmins Ward, \*John Houghton White, John James Winn.

The following passed in Elementary Mechanics alone :—

Edwin Thomas Larkam, Henry Nichol, Reginald Field Walker.

## DEATHS.

BERTIER, DR. FRANCIS, at Aix-les-Bains, on September 8, aged 36.  
BROWNE, CHARLES FREDERICK, M.R.C.S., late of Tulse Hill, London, at Shipston-on-Stour, Worcestershire, on September 6, aged 72.  
CLOUSTON, CHARLES STEWART, M.D., of Gunnersbury, London, W., at Sandwick Manse, Orkney, on September 16.  
FOOTMAN, JOHN, M.D., on September 9, aged 51.  
HARDY, FREDERIC, M.D., of Southport, at Rock House, Pembrey, South Wales, on September 5, aged 77.  
HODGSON, FREETH FOSTER, M.R.C.S., at St. Bartholomew's Hospital, on September 7, aged 31.  
ILES, FRANCIS HENRY WILSON, M.D., at Watford, Herts, on September 18, aged 48.  
MARTIN, JOHN, M.R.C.S., at Oxford, on September 7, aged 82.  
MERRY, ROBERT ROSIER, M.R.C.S., L.R.C.P., at Marlowes, Hemel Hempstead, on September 4, aged 43.  
RIDOUT, CHARLES LYON, Staff-Surgeon of H.M.S. *Tourmaline*, at Mauritius, on August 24, in his 38th year.  
SATCHELL, WILLIAM CARROL, M.R.C.S., late of Tunbridge Walls, at Hastings, on September 10.  
TWINING, FRANK THEED, M.A., M.B., at the Eastern District Hospital, on September 14.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

QUEEN'S COLLEGE, BELFAST.—Professor of Anatomy and Physiology. (For particulars see Advertisement.)

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—Assistant-Physician, etc. (For particulars see Advertisement.)

ROYAL LONDON OPHTHALMIC HOSPITAL, BLONFIELD-STREET, MOORFIELDS, E.C.—House-Surgeon. (For particulars see Advertisement.)

ST. GEORGE'S, HANOVER-SQUARE, PROVIDENT DISPENSARY, 59, MOUNT-STREET, W.—Resident Medical Officer. Salary and allowance last year £212 2s. 9d. Candidates must be doubly qualified, and duly registered under the Medical Act, and about thirty years old. Unmarried candidates preferred. Applications and testimonials as to character, etc., to be sent to the Secretary, G. H. Leah, jun., 73, Park-street, W. (from whom all further particulars may be obtained), not later than Sept. 29.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, ETC., HENRIETTA-STREET, COVENT-GARDEN, W.C.—House-Surgeon. Honorarium twenty-five guineas; board, lodging, and washing. The appointment is for six months. Candidates must be M.R.C.S., and have held the position of house-surgeon at a public institution. Applications, with testimonials, to be sent to the Secretary, Walter E. Scott, on or before September 25.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\*. The area of each district is stated in acres. The population is computed according to the census of 1881.

### RESIGNATIONS.

*Bingham Union.*—Mr. Charles Rowland has resigned the Workhouse: salary £30 per annum.

*Birkenhead Union.*—The offices of Medical Officer for the Second District, the Workhouse, and the Schools at Tranmere are vacant by the death of Dr. W. G. Laidlow: area 1139; population 34,882; salary £100 per annum; salary for Workhouse £50 per annum; salary for Schools £20 per annum.

*Catherington Union.*—The office of Medical Officer for the Union is vacant by the death of Mr. R. Wellings: area 12,901; population 2769; salary £60 per annum.

*Crediton Union.*—Mr. A. M. Bredon has resigned the Cheriton Fitzpaine District: area 10,980; population 1478; salary £45 per annum.

*Ellesmere Union.*—Mr. Edward Sandford has resigned the Middle District: area 7584; population 1245; salary £22 10s. per annum.

*Pontardawe Union.*—Mr. Thomas Morgan Andrews has resigned the Workhouse: salary £15 per annum.

*Woodstock Union.*—Mr. Frederick Taylor has resigned the Woodstock No. 2 District and the Workhouse: area 10,758; salary £52 10s. per annum; salary for Workhouse £35 per annum.

### APPOINTMENTS.

*Abingdon Union.*—Sidney A. Hayman, M.R.C.S. Eng., L.R.C.P. Lond., to the First District.

*Bodmin.*—John J. Beringer, F.C.S., an Analyst for the Borough.

*Bridlington Union.*—Donald Morison, B.M. and M.C. Glasg., to the Fourth District.

*Cockermouth Union.*—Isaac C. Hodgson, M.B. and C.M. Glasg., to the Workington District.

*Crediton Union.*—Charles H. Haycroft, M.R.C.S. Eng., L.S.A., to the Coldridge District.

*Greenwich Union.*—Jas. Dixon, L.R.C.S. Ire., L.A.H. Dub., as Assistant Medical Officer and Dispenser of Medicines at the Infirmary and the Workhouse.

**THE DUBLIN ARTISANS' DWELLINGS COMPANY.**—The fourteenth ordinary general meeting of this Company was held on Monday, the 10th inst. The report showed that the entire revenue of the Company for the half-year ending June 30, 1883, amounted to £3354 4s. 7d., which, after providing for all expenses, leaves a balance of £1580 13s., out of which the directors recommend a dividend at the rate of 4 per cent. per annum, absorbing £1319 7s., and leaving a balance of £261 6s., which they recommend should be carried to the reserve fund. The buildings of the Company now accommodate 536 families, with 2500 inhabitants. There had been 28 deaths, being at the rate of 23 per 1000 per annum as compared with 35 per 1000, the average over the whole city. There were 13 deaths of children under five years of age—a class which forms one-fifth of the entire population. The mortality of that class in the city and suburbs was 87 per 1000, while in their houses it was only 49 per 1000. The report was unanimously adopted.

**PROFESSOR VIRCHOW AND THE "SWISS PILL."**—Prof. Virchow has fallen under the displeasure of the Congress of German Physicians, a society which meets annually to take cognisance of medical ethics and allied matters. He has been charged with giving a testimonial to a secret remedy—the *pilule Helveticæ* of a Dr. Brandt, of Schaffhausen; and doubtless many of our readers have themselves received the laudatory notices which accompany these famous pills, the distribution of which has not been limited. Virchow, in a letter to the *Berliner Klin. Wochen.*, marvels at the amount of displeasure which he has apparently incurred. He says that he received some of the pills last winter, with a letter from Dr. Brandt asking him to give them a trial. Some time afterwards came another appeal, and, being in need of such a remedy, he tried their effect upon himself. The result was so satisfactory that he penned a few lines to the inventor, which the latter published without Virchow's sanction—pleased, no doubt, when such testimony came from so high a quarter. From that time Virchow has had no peace—letters and circulars, signed and unsigned, have been addressed to him, complaining that he was violating the ethical law in giving a testimonial to a secret remedy; and this has culminated in the remonstrance addressed by the Chairman of the Committee of the *Aerztevereinsbund*. The Committee also produced an official analysis of the pills, which, however, only went to show that their composition was nothing very extraordinary. Virchow denies that he ever gave a testimonial at any time for these or any other pills. He withdraws from the Bund, and appeals from its arbitrary action to his medical brethren at large to pass a judgment free from the paltry and narrow trades-unionism which characterises this act.—*New York Med. Record*, August 4. [We doubt whether the Professor's



appeal will be responded to. When will the great ones of the earth learn that their names and reputations are too sacred a possession to be lightly put at the disposal of mercantile adventurers?]

**ABERDEEN ROYAL INFIRMARY AND LUNATIC ASYLUM.**—A quarterly meeting of the managers of this institution was held on Monday, in the Infirmary Hall, under the presidency of the Lord Provost, when a number of subscriptions were intimated, including one of £1000 from Dr. Francis Edmond. In reference to the sum of £2068 bequeathed by the late Miss Allan, of Potterton, for the extension of the Infirmary buildings, the Provost remarked that they were all alive to the great good that was being done in the community by the institution; but, like other institutions, the circumstances outgrew the accommodation, and it would be necessary at an early date, no doubt, to reorganise the Infirmary in accordance with the most recent discoveries in science, and the best arrangement of such institutions in regard to the treatment of the sick. It is most encouraging to find that they have in hand £3000 for enlargement and improvement; and when the time comes, the charity and benevolence of those who take great interest in such institutions will be equal to the occasion. At the same meeting, Dr. Thomas Collins, of Elgin, was appointed Superintendent of the institution. There were no fewer than seventeen candidates for the vacant office.

**SUGAR AS AN ANTISEPTIC DRESSING.**—Dr. Fischer states that Prof. Lücke, of Strasburg (*Centralblatt f. Chir.*, August 25), has since May last been making trials of sugar as a pulveriform antiseptic. He has used it mixed with equal parts of naphthaline or with a fifth part of iodoform, enclosing it in gauze bags, which are fixed over the wound after the application of sutures. When the skin is defective, the sugar is strewn over the wounded surface. The wound has been disinfected during the operation by means of a 1 per cent. sublimate solution. The dressing may remain on the part from a week to a fortnight, until the sugar becomes dissolved, the secretions from the wound diffusing themselves equally throughout the sugar. If, however, the sugar is applied too thickly (*i.e.*, more than half a centimetre) it forms into lumps. The wounds thrive under the sugar, the dressing emitting no bad smell nor exhibiting bacteria. The granulations are well developed, having no inclination to bleed, and cicatrization proceeds rapidly. In wounds united by suture, primary union has always been obtained. The experience thus far gained justifies the recommendation of further trials of a remedy so easy to obtain.

## APPOINTMENTS FOR THE WEEK.

*September 22. Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

*24. Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

*25. Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

*26. Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

*27. Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

*28. Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, September 15, 1883.*

### BIRTHS.

Births of Boys, 1256; Girls, 1232; Total, 2488.

Corrected weekly average in the 10 years 1873-82, 2584.6.

### DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	661	599	1260
Weekly average of the ten years 1873-82, } corrected to increased population ...	711.4	669.3	1380.7
Deaths of people aged 80 and upwards ... ..	...	...	35

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	...	5	6	3	6	...	1	...	4
North ... ..	905947	1	5	8	5	7	...	20	...	15
Central ... ..	282238	...	1	...	2	2	...	2	...	3
East ... ..	692738	...	5	21	6	2	...	4	...	15
South ... ..	1265927	...	8	13	5	13	...	4	...	25
Total ... ..	3816483	1	24	48	21	30	...	31	...	62

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

Mean height of barometer ... ..	...	...	...	...	...	29.900 in.
Mean temperature ... ..	...	...	...	...	...	57.8°
Highest point of thermometer ... ..	...	...	...	...	...	73.1°
Lowest point of thermometer ... ..	...	...	...	...	...	41.6°
Mean dew-point temperature ... ..	...	...	...	...	...	54.2°
General direction of wind ... ..	...	...	...	...	...	Variable.
Whole amount of rain in the week ... ..	...	...	...	...	...	1.52 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 15, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Sept. 15.	Deaths Registered during the week ending Sept. 15.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ... ..	3955814	2488	1260	16.6	73.1	41.6	57.8	14.34	1.52	3.88
Brighton ... ..	111262	66	48	22.5	70.0	45.8	57.7	14.28	0.94	2.39
Portsmouth ... ..	131478	80	54	21.4	...	...	...	...	...	...
Norwich ... ..	89612	66	35	20.4	...	...	...	...	...	...
Plymouth ... ..	74977	51	27	18.8	66.1	42.5	55.1	12.84	0.74	1.88
Bristol ... ..	212779	140	57	14.0	66.4	46.0	56.2	13.44	1.06	2.69
Wolverhampton ... ..	77557	47	33	22.2	65.4	37.4	53.8	12.12	1.08	2.74
Birmingham ... ..	414946	259	169	21.3	...	...	...	...	...	...
Leicester ... ..	129483	85	47	18.9	68.5	42.0	56.2	13.44	0.95	2.41
Nottingham ... ..	199349	144	65	17.0	69.5	38.6	55.3	12.95	0.94	2.39
Derby ... ..	85574	71	24	14.6	...	...	...	...	...	...
Birkenhead ... ..	88700	64	35	20.6	...	...	...	...	...	...
Liverpool ... ..	566753	377	268	24.7	68.1	48.0	56.0	13.33	0.38	0.97
Bolton ... ..	107862	64	36	17.4	67.9	41.6	54.4	12.44	0.67	1.70
Manchester ... ..	339252	252	175	26.9	...	...	...	...	...	...
Salford ... ..	190465	128	95	26.0	...	...	...	...	...	...
Oldham ... ..	119071	90	44	19.3	...	...	...	...	...	...
Blackburn ... ..	108460	75	52	25.0	...	...	...	...	...	...
Preston ... ..	98564	72	42	22.2	67.0	50.0	56.5	13.61	0.23	0.58
Huddersfield ... ..	84701	44	38	23.4	...	...	...	...	...	...
Halifax ... ..	75591	41	24	16.6	...	...	...	...	...	...
Bradford ... ..	204807	121	52	13.2	66.7	44.1	54.9	12.72	0.75	1.90
Leeds ... ..	321611	199	150	24.3	68.0	45.0	55.9	13.23	0.41	1.04
Sheffield ... ..	295497	211	129	22.8	67.0	43.0	55.2	12.89	0.94	2.39
Hull ... ..	176296	121	61	18.1	67.0	40.0	55.6	13.12	1.38	3.51
Sunderland ... ..	121117	98	62	26.7	68.0	47.0	53.2	11.78	0.85	2.16
Newcastle ... ..	149464	92	67	23.4	...	...	...	...	...	...
Cardiff ... ..	90033	71	35	20.3	...	...	...	...	...	...
For 28 towns ... ..	5620975	5617	3184	19.3	73.1	37.4	55.6	13.12	0.86	2.18
Edinburgh ... ..	235946	123	62	13.7	...	...	...	...	...	...
Glasgow ... ..	515589	358	243	24.6	64.0	35.0	53.6	12.01	0.46	1.17
Dublin ... ..	349885	170	184	27.5	64.6	35.0	51.7	10.95	0.02	0.05

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.90 in.; the lowest reading was 29.75 in. on Monday afternoon, and the highest 30.09 in. on Thursday morning.



## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

*The Closing of Hospitals for Cleaning, etc.*—A working-man's letter calls the attention of the managers of our metropolitan hospitals to what he considers "an unfair and most uncharitable custom," namely, closing the accident wards whilst the building is being cleansed, painted, etc. A case, he says, occurred some days previously, of a poor young man, a stonemason, employed on a high building near the Northumberland-avenue, Charing-cross, falling from a scaffold. He was at once taken to the Charing-cross Hospital, but on application for admission his comrades were informed the Hospital was closed. He was forthwith conveyed to King's College Hospital, which, fortunately, was not closed against such cases. He protests against any hospital being entirely shut against cases of accident during the time of cleansing, etc., and concludes: "I earnestly appeal to all who, like myself, have willingly contributed my donation to the Sunday, as also to the Saturday, Hospital Funds, that they should do all in their power to urge upon our hospital authorities that no cases of accident should be excluded at any time."

*Hospital for Poor Italians in London.*—The Chevalier Ortelli, of Hatton-garden, has generously provided a hospital for the poorer Italians of the metropolis. The Chevalier has purchased a commodious house in Queen-square, Bloomsbury, has adapted it for a hospital, furnished it with every necessary for the sick, and presented it for the benefit of his poor fellow-countrymen in London. The hospital is open for the reception of patients.

*Tobacco and Snuff for Workhouse Paupers.*—A letter from the Local Government Board, approving of the auditor's surcharging the cost of tobacco and snuff, given out to the inmates without direct orders from the medical officer, was the subject of some discussion at the last meeting of the Liverpool Workhouse Committee. The Committee took exception to this sanctioning of the surcharge, and instructed their clerk to prepare a statement in reply, to be forwarded to the central authority.

*Taken to Task.*—"It seems," says a contemporary, "to be the function of certain medical journals to try and frighten people who are so unwise as to pin their faith on the dicta which they enunciate every week. Regularly, as Saturday comes round, we are favoured with a great deal of what looks, at first sight, like sage advice—regarding the risk we run from this danger, or from that. Now it is drains which are to decimate the foolish ones, who decline to have them inspected by a fussy personage, whose aim it is to impress us with a sense of his importance, by turning everything upside down and converting the entire neighbourhood into a particularly odorous locality. Then it's the water-supply, etc." The writer adds, "What we object to is the fussiness of those who, by terrifying timid folk, conduce to the very mischief it is their ostensible aim to avoid."

*Penalties for Selling Adulterated Spirits, Australia.*—For the first offence a fine of £25 is imposed; for the second, £50; and then imprisonment.

*An Inquest Incident.*—When the jury were about to be sworn on an inquest held at the "Lord Clyde," Wotton-road, Deptford, Mr. Carttar, the West Kent Coroner, opened the book which was supplied by the landlord of the house for the purpose of administering the oath to the jurymen, and found it to be a copy of "Tristram Shandy." After some delay the New Testament was forthcoming.

*The Grand Junction Canal.*—The condition of this canal, particularly in relation to its effect upon the health of the patients in the adjacent St. Mary's Hospital, is receiving, not too soon, necessary attention. When the basin near the Hospital was recently being "cleaned," and the water run off, Mr. St. George Mivart experienced an abominable stench, and found the corridors and wards of the Hospital impregnated with the same nauseous odour. The officials state that a similar offensive smell is of frequent occurrence, especially at night, though not so bad as in the instance in question. The Medical Superintendent, Dr. Stewart Brown, found that during the two or three days following this "cleaning" several cases of tonsillitis occurred among the patients in the Hospital, while one poor woman, who had undergone a serious surgical operation, and had been making favourable progress for upwards of a week, had since shown symptoms of blood-poisoning, and had been in serious danger of her life.

*Physical Effects of the Ischia Earthquake on Survivors.*—Professor E. Fazio has been making notes in Ischia as to the impressions, etc., made upon the victims before and after the calamity. He has ascertained that in general those who were excavated alive were stupefied, their organic functions paralysed, their sight weakened or altogether suspended for some time; most had felt extreme thirst while under the masonry, but all asserted that they had never lost the hope of being saved.

*Damp Houses.*—A correspondent asks: "If dampness is the sole cause of the unhealthiness of new houses, why are not tents unhealthy in wet weather? I have," he adds, "seen a good deal of tent life, and always found it agree with me."

*Making the Best of the Animal.*—A publican of Calverton, Bucks, was charged before the Northampton Bench with exposing beef for sale unfit for human food, at Cottonend. The animal, which belonged to the Duke of Grafton, went mad, and his Grace's steward ordered defendant to kill it, and make the best of the carcase. He brought it to Northampton and sold it for five guineas. The sentence of the Bench was one month's imprisonment without the option of a fine, and an order to pay £3 2s. 6d. costs.

*Dr. Thompson, Liverpool.*—He was a great political writer, as was the celebrated Dr. Shebbeare, who was condemned to stand in the pillory at Charing-cross for publishing "An Eighth Letter to the People of England."

*J. Tremearne, Esq., Creswick, Victoria, Australia.*—Letter and enclosure received with thanks.

*The Relation of the Teeth to the Brain.*—The recent discussion in the French medical journals on the relation of the teeth to the brain, and their conclusions, are of importance to all brain workers. Dr. Championnière recommends that parents and guardians should pay close attention to the condition of the teeth of those under their care, and should, when any signs of premature decay are noticeable, give their charges a holiday.

*Champagne or Claret?*—The circumstance about which you inquire occurred as long ago as 1652. Mr. Vizetelly informs us in his work on Champagne, that a young medical student in France, at a loss for a subject for his inaugural thesis, advanced the bold theory that the wines of Burgundy were preferable to those of Champagne, the latter being irritating to the nerves and conducive to gout. The Faculty of Medicine at Rheims were, of course, at once in arms in defence of their local *crû*, and many learned disquisitions did they publish, setting forth the wonderful purity and other merits of the wines of Sillery, Rheims, and Epernay. The dispute assumed a very excited form. The entire medical profession took part in it; and it continued down to 1778, when the Faculty of Paris put an end to the discussion by giving a formal verdict in favour of the wines of Champagne.

*Narrow Escapes.*—The published report of a benevolent society says: "Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year."

*The Stratford-on-Avon Infirmary.*—From the last annual report it appears that the regulations requiring each in-patient to pay a registration fee of two shillings upon admission, and each out-patient one shilling on presentation of ticket, had worked very satisfactorily, and the funds of the charity had been increased in consequence.

*A District Auditor's Officiousness.*—The district auditor has made various surcharges on members of public bodies in Kent, several of which have been reversed by the Local Government Board. He recently surcharged three town councillors of Faversham with the sum of £6 6s. 9d., on the ground that their payment of that sum for expenses incurred by the medical officer in the purchase of a disinfecting apparatus for public purposes was not a legal expenditure.

*A Sanitary Medical Organisation, New York.*—This organisation is composed of fifty physicians, whose duty it is during the hottest weather to make a house-to-house visitation of all the tenement-houses in the city. It is stated that this work has been in operation for several years, and has had good results—it has lowered the death-rate, and improved the sanitary condition of these (the most crowded) districts. Dr. Jones, the Assistant Sanitary Superintendent, says, in his report of last summer's operations: "It is the general belief that a gradual improvement is being made in the sanitary condition of the premises visited, as evidenced by less sickness and fewer violations of sanitary law. The apparent result of several years' experience is that this service becomes year by year more popular; visits are received with increasing confidence and interest, and the advice given carefully followed."

*Protest against the Site of a Temporary Hospital for Small-pox Patients.*—This hospital, for the reception of patients from the Aston district, Birmingham, which has been in course of construction at the corner of Rocky-lane and Chester-street, has evoked a protest at two public meetings in respect to its site; and resolutions have been passed that the attention of the Local Government Board should be called to the matter.

*The late Dr. Bertier.*—Touching the death of Dr. Bertier fils, at the early age of thirty-seven years, a correspondent at Aix-les-Bains states: "The deceased was much appreciated by the numerous English visiting the place for the baths, and was well known in England by many patients who had been treated by him, and to whom he was recommended as much by his kindly social qualities as by his medical knowledge."

*London Children Suffocated.*—Dr. G. Danford Thomas, Coroner for Central Middlesex, in addressing the jury at an inquest on the body of a child sixteen weeks old, found dead in bed by the side of its parents, said that every year he held over 120 inquests on children who had died under similar circumstances from suffocation.

*A House-hunter.*—We believe a book, "Hints to House-hunters and House-holders," will give you the information you require. It is published by Messrs. Batsford, of High Holborn.



*The Wolverhampton and Staffordshire Hospital.*—At the half-yearly meeting of the Board the chairman announced the receipt of a donation of £1000 from Mr. J. E. Briscoe, to provide homes for persons connected with the institution. An invitation to inspect the Briscoe Home for Nurses, which is admirably fitted up for the sleeping accommodation of twelve of the staff, was accepted.

*"From the Time of the Norman Conquest."*—The Totnes Rural Sanitary Authority having had their attention drawn to the very insanitary state of Stoke Gabriel, Dr. Cape, Medical Officer of Health, admitted that Stoke Gabriel was in a bad sanitary condition. It was saturated with sewage, in consequence of the filthy habits of the people from the time of the Norman Conquest down to the present. This remark was met with a smile, but what caused it is left to conjecture. However, the matter was referred to a committee for consideration and report.

*The Ballot in the Election of Local Boards.*—Mr. Rylands, M.P., will move next session—"That, in the opinion of this House, it is desirable that provision should be made, at the earliest practicable period, for the adoption of the ballot in the election of local boards, town improvement commissioners, and boards of guardians."

*Publicans' Responsibilities.*—At Stockton, the licensing justices have warned the holders of licences that they are bound to supply tea and coffee and solid refreshments when they are asked for. "The word victual," said the Chairman of the Bench, "means food, and not merely beer and spirits, which to some persons are nothing less than poisons."

*Paupers' Snuff: An Alternative.*—The medical officer reported at the last meeting of the South Dublin Union Guardians that he had directed that eight pounds of snuff should be served out to the inmates. A guardian thereupon observed that he was glad of this, because the old women took ashes when they could not get snuff, and the old men ground up stones and mixed them with clay for the same purpose, both of which injured their health.

*Unhealthy Houses: An Owner within the Meaning of the Act.*—By order of the Hampstead Vestry, two summonses were taken out at the police-court against Enoch Maggs, for allowing a nuisance injurious to health to exist on premises Nos. 8 and 9, Goldsmith's-place, Kilburn. The premises were in a very foul and filthy condition, and in bad repair through his default as "owner." An order to repair and improve five other houses in Goldsmith's-place, which were in a similar insanitary state, was made on the defendant a fortnight previously, and was being complied with. The defendant in the present case again asserted that he was not the "owner," and handed a letter to the Bench from another agent of the property. The sanitary inspector proved the unhealthiness of the houses in question, observing that the defendant was the "owner" within the meaning of the Act, as he received the rents, and he (the inspector) asked for an order to be made on the defendant to do the work that was necessary. The order was granted—the work to be completed within one month.

*Shameless Quacks.*—Two men, named respectively Wallace and Clark, have been brought up at the Lerwick Sheriff Court, charged with contravening the Medical Act by assuming the title of "doctors." The accused had publicly announced that Drs. Wallace and Clark would deliver lectures at the Lerwick Market Cross, and had there, after lecturing on diseases of the human body, prescribed and furnished medicines for them. When lecturing, Wallace stated that he had been surgeon on board Her Majesty's ship *Lincoln*, and that he had stood close to the University gates in Edinburgh, vending his medicines, with the consent of certain professors, whose names he gave as a guarantee of his professional standing. The Sheriff characterised the accused as two of the most impudent quacks he had ever come across, and sentenced Wallace to a fine of £5 and 36s. costs; but, as Clark was only a subordinate, he found the charge against him not proven.

*Meat for Paupers.*—This question has been the subject of discussion by the Guardians of the City of London Union. The master of the Bow Workhouse complained that the contractor had sent in four carcasses of sheep that had been frozen and were in a bad condition, and consequently he sent them back, charging the difference in the price to the contractor's account. The alleged bad condition of the meat was not substantiated, and the Board generally approved of frozen meat as an article of diet. It was stated that the foreign frozen meat was not only good, but commanded a very extensive sale among the well-to-do classes. The Board decided that American-killed beef and Australian mutton may be included in the supply to the workhouse. The Guardians obtain these meat-supplies for their paupers at 7d. per lb. There is no doubt these importations from abroad have the effect of very considerably reducing the market prices of meat, and that the food is both wholesome and nourishing.

*A Chinaman and Chinese Women Doctors.*—Mr. Tong Sing, a Chinese gentleman, has sent £10 to the London School of Medicine for Women. He says it would be a blessing if Chinese ladies were taught medicine.

*H. M., Hemel Hempstead.*—The late Dr. Robert Willis, the biographer of William Harvey, was the first librarian of the Royal College of Surgeons. He was for some time editor of the *London Medical Gazette*, for many years past incorporated in this journal.

*A Female Guardian on Workhouse Fish Dinners.*—On the motion coming on for discussion at the Paddington Board of Guardians, last meeting, that the inmates of the workhouse be supplied with a fish dinner once a week, Mrs. Charles said that fish was not fit food for paupers, because it was brain food containing phosphorus, which was excellent for brain workers. Paupers did not require it, as they did not use their brains. The motion was, however, we are glad to say, carried, notwithstanding the lady's opinion.

*The Removal of House Refuse: An Experiment.*—The Sub-Committee appointed by the Poplar District Board of Works to consider the collection of dust, etc., and to supply receptacles for it, reported that they had resolved to recommend that one thousand houses in a block in each parish be supplied with dust-pails, as an experiment, and that the receptacles be emptied twice in each week. The recommendation was adopted.

COMMUNICATIONS have been received from—

THE TREASURER OF GUY'S HOSPITAL, London; Dr. HENRY W. WILLIAMS, Boston, U.S.A.; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. HENRY SUTHERLAND, London; Mr. J. T. W. BACOT, Seaton; Dr. C. MERCIER, Dartford; Dr. B. NICHOLSON, South Norwood; Mr. T. M. STONE, London; Dr. NORMAN CHEVERS, London; Dr. G. E. HERMAN, London; Mr. J. CHATTO, London; Mr. R. PARKER, Liverpool; Mr. R. J. W. OSWALD, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Messrs. POWELL BROTHERS, Leeds; Dr. BUSHELL ANNINGSOON, Cambridge; Dr. KELLY, London; Dr. WARNE, London; Dr. WORKMAN, Toronto; Dr. A. T. THOMSON, Glasgow; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE BRISTOL ROYAL INFIRMARY, Bristol; Mr. MUNRO SCOTT, London; Professor ATTFIELD, London; Mr. W. WATSON CHEYNE, London; Dr. CRICHTON BROWNE, London; Mr. T. V. LISTER, London; Mr. T. H. KILLICK, Hungerford; Dr. R. NORRIS WOLFENDEN, Southampton; THE REGISTRAR GENERAL FOR SCOTLAND, Edinburgh; Dr. H. DONKIN, London; THE SECRETARY OF ST. THOMAS'S HOSPITAL, London.

BOOKS, ETC., RECEIVED—

Report on the Sanitary Condition of the Parish of St. Mary, Islington, for 1882—Notes on Books, by Messrs. Longmans and Co.—Remarks on Hydrophobia, by Charles W. Dulles, M.D.—Medical Communications of the Massachusetts Medical Society, vol. xiii., No. 11, 1883—Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris—Insanity, by E. C. Spitzka, M.D.—Diseases of the Ear, by O. D. Pomeroy, M.D.—Sexual Impotence in the Male, by W. A. Hammond, M.D.—Syphilis and the Genito-Urinary Diseases, by F. N. Otis, M.D.—Annual Report of the Colony of Mauritius Lunatic Asylum for 1882—Healthy Brain and Mental Development in an Infant, by F. Warner, M.D., M.R.C.P.—A Method and Apparatus for obtaining Graphic Records of various kinds of Movements, etc., by F. Warner, M.D.—Annual Report of the Urban Sanitary District of Featherstone for 1882—Asiatic Cholera, by Charles Moore Jessop, M.R.C.P.—Artificial Infant Alimentation, by Hugh Hamilton, M.D. (University of Pennsylvania)—Tenth Annual Report of the Gloucestershire Combined Sanitary District for the Year 1882—Ueber die Drehung des Vorderarms, von Prof. Dr. Jacob Heiberg—Du Traitement des Maladies Tropicales dans les Climats Tempérés, par Sir Joseph Fayrer, M.D., etc., et Joseph Ewart, M.D., F.R.C.P.—On Shock, by W. H. Meyers, M.D., Fort Wayne—Préservation de la Syphilis par la Vaccine, etc., par le Docteur W. H. Van der Heijden—Report on the London Water Supply—Engineering Education at Home and Abroad, by Edward Mitchell—Transactions of the Medical Society of the State of Pennsylvania—Phthisis, by John Parkin, M.D.—Club Foot, by De Forest Willard, M.D.—Transactions of the College of Physicians, Philadelphia—Transactions of the Academy of Medicine in Ireland—Ambulance Service in Philadelphia, by De Forest Willard, M.D.—Congenital Phimosia, by De Forest Willard, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Bible Light—Philadelphia Medical Times—Students' Journal and Hospital Gazette—Weekblad—Denver Medical Times—Popular Science News and Boston Journal of Chemistry—Revista Medico-Quirúrgica—New York Medical Journal—Physician and Surgeon—Maryland Medical Journal, August 25 and September 1—New York Medical Record—Journal of Cutaneous and Venereal Diseases—Archives de Neurologie—Chemist and Druggist—Western Medical Reporter—Detroit Lancet—Journal of the Vigilance Association—Journal of the British Dental Association—Journal of Nervous and Mental Disease—Canada Lancet—Canadian Practitioner—American Journal of Obstetrics—Therapeutic Gazette—Practitioner—Analyst.

INHALATION OF OXYGEN IN POISONING BY ILLUMINATING GAS.—Dr. Alonzo Clark related two cases to the New York Medical and Surgical Society (*New York Medical Journal*, August 11), which he believes to be the first examples of poisoning by gas being treated by inhalation of oxygen. A woman, forty years of age, and her daughter, aged twelve, slept in a room filled with the fumes of escaping gas, and, after being exposed to these during fifteen hours, were found in a state of insensibility. They were brought to the hospital in an unconscious and exhausted state, but after inhalation of oxygen had been administered during three hours, consciousness returned, and both eventually recovered.



# LECTURES ON THE PROTECTIVE AND LACRIMAL APPARATUS OF THE EYE.

*Delivered at the Royal College of Surgeons.*

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## LECTURE II.

In the great majority of Mammals the surface of the eye is kept bright and polished by the play in a vertical direction of two eyelids, both of which are movable, both of which contain muscular fibres, and the movements of which are facilitated by the secretion of a lacrimal gland. Like Birds, they have an additional means of protection provided for these organs, in the form of a third eyelid, or membrana nictitans, which has its own gland, named the Harderian gland, connected with it, and which sweeps across the cornea in a horizontal direction beneath the other two.

In Man and many of the higher Quadrumana the membrana nictitans, perhaps correlatively with the development of the fore-limb as an organ of protection, becomes reduced to a mere rudiment, the plica semilunaris; and the Harderian gland altogether disappears.

The Eyelids, to the description of which a whole lecture might easily be devoted, may be regarded as two folds of skin, the inner surfaces of which are lined by mucous membrane. Between the skin and the mucous membrane is a web of connective tissue, with a layer of pale and delicate muscular fibres.

Without entering into minute details, these parts may be briefly described. The skin is fine and soft, loosely connected with the subjacent parts, transversely wrinkled, provided with hairs of a pubescent character, sebaceous and sweat glands. The deeper parts even in Man contain pigment cells, especially abundant in dark-complexioned individuals. Beneath the skin is loose connective tissue, the meshes of which becoming filled with effusion accounts for the swelling in various inflammatory affections.

The muscular fibres of the orbicularis, to which I shall have occasion to revert, occupy the middle part of the section of the lid, and are composed of many fasciculi, which run transversely. One particular fasciculus, situated near the free border of the lid, has received the name of the muscle of Riolanus.

Beneath the muscular layer is a thin layer of loose connective tissue which intervenes between it and the proper foundation of the lid, named the tarsus, or improperly the tarsal cartilage. This lamina is composed of a dense and homogeneous layer of connective tissue. Posteriorly, the tarsus of the upper lid has inserted into it the tendinous fibres of the levator palpebræ muscle; anteriorly, the tarsus terminates insensibly in the connective tissue of the free border of the lid. It is separated from the conjunctiva by a fine band of fibres.

In both lids some muscular fibres of the unstriated kind extend from the conjunctival retrotarsal fold to the upper and lower, or rather to the posterior, margins of the tarsal cartilages.

The glands associated with the eyelids are, according to Waldeyer—(1) the Meibomian glands; (2) the normal sudoriparous glands; (3) the modified sudoriparous glands of the free border and of the lacrimal caruncle or glands of Moll; (4) the tubular glands of the conjunctiva; (5) the acino-tubular glands of Krause; and (6) the glands of Manz.

Besides ordinary sudoriparous glands distributed over the surface of the lid, Waldeyer has described some specially modified sudoriparous glands which he has seen on the free border of the lid and on the caruncle. Each opens into the mouth of a sebaceous follicle between the opening of the Meibomian follicles and the point of implantation of the cilia, and when traced back forms a long and sinuous *cul-de-sac*, lined by a single layer of columnar cells, and containing finely granular substance and spherical corpuscles analogous to a drop of albumen.

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The glands of Manz are described as consisting in Man and Animals of a small sac having a fine aperture, with epithelial cells, free nuclei, small round cellules, and some detritus. Waldeyer(a) is, however, inclined to regard them as accidental productions composed of packets of epithelial cells in a plexus of connective tissue analogous to the tartric glands of the gums, and which are occasionally met with in the skin.

The acino-tubular glands of Krause are found in the retrotarsal fold of the conjunctiva, chiefly near its nasal part; but also on and in the substance of the tarsus. Krause usually counted sixteen to eighteen, though once as many as forty-two, in the upper lid, and from six to eight in the lower lid. The tubuli of these glands, as well as their terminal vesicles, are large, and are filled with tolerably clear epithelium.

The Meibomian follicles are glands that especially belong to Mammals. They are not found in Fishes, Reptiles, or Birds. Their absence in Birds is somewhat remarkable. The vigilance of these animals is almost proverbial, and it might have been anticipated that the oily secretion produced by these glands, the object of which seems to be to prevent adhesion of the lids during sleep, would have been found in them.

The Meibomian glands may be regarded as composed of an excretory duct, around which are disposed, in whorls, not primary tubes as in the Harderian gland of Birds, but true acini. The epithelium of the duct is arranged in a triple layer, the middle layer of cells being very distinctly ribbed. The internal surface of the acini is lined by cubical epithelium, which towards the lumen of the tube passes into the sebaceous mass. This mass appears to be formed by the fatty degeneration of the cells. It is doubtful whether the acini have a membrana propria. The general arrangement of the parts is very similar in Animals, the chief differences being in the amount of connective tissue between the acini.

The use of the Meibomian glands is clearly to prevent adhesion of the lids during sleep, and to prevent the flow of the tears over the cheek.

The best description of the Lacrimal gland in Man that has been given is by Sappey, whose account I shall follow, and whose illustrations are excellent.

The position of the gland in Man, as in most Animals, is at the upper and outer or posterior part of the globe of the eye—a position that, on the doctrine of evolution, it might almost have been predicted that it would occupy, because the discharge of its secretion in the form of tears would here act to the greatest advantage in carrying away foreign bodies that may have accidentally entered between the lids.

In Man it consists of two portions, differing considerably in their form and situation, though they are continuous with each other and secrete the same kind of fluid. The upper or orbital portion, sometimes called the glandula lacrimalis superior, or G. innominata of Galen, is familiar to everyone; whilst the inferior, palpebral portion, or G. congregata Monroi, is less generally known. They are separated from each other by a fibrous lamina. The orbital portion of the gland is an ovoid mass, the long axis of which is directed downwards and outwards. It is of firm consistence, and occupies the fossa at the outer and anterior part of the orbit, just within the external orbital process. Its external convex surface is in contact with the periosteum of the bone, to which it is adherent by tolerably strong fibro-cellular bands. The inferior surface is smooth and slightly concave, and rests on the levator palpebræ and external rectus muscles. The lacrimal nerve and artery enter at the posterior margin. The anterior border is parallel to the margin of the orbit, beneath which it may be sometimes felt. This margin may be seen on division of the broad ligament. The upper or internal extremity corresponds to the elevator of the lid, and the inferior or outer extremity to the middle portion of the external rectus.

The inferior accessory or palpebral portion of the gland is flattened and irregularly quadrilateral. It is covered throughout its whole extent by the orbito-palpebral muscle, which separates it from the anterior border of the orbital portion, so that, when looked at from above and in front, the two portions of the gland are separated by a deep fissure. The under surface of the palpebral portion rests on the external rectus and on the conjunctiva. Posteriorly it is continuous with the orbital portion of the gland. Its anterior border is

(a) Page 19, Wecker and Landolt.



parallel to the attached border of the upper tarsal cartilage, from which it is separated by an interval of a sixth of an inch. The upper and lower borders are irregular in outline, and a few detached lobules may sometimes be seen resting on the outer surface of the inferior tarsal cartilage, and opening by a common duct on the inner surface of the lower lid immediately below the external angle of the lid.

*Excretory Ducts.*—Much difference of opinion has existed in regard to the number, and indeed in regard to the very existence, of excretory ducts. Haller and the anatomists who preceded him—such, for example, as Zinn, Santorini, and Morgagni—were unable to inject them; and the credit of being the first to effect this is given to Monro, who, in 1758, injected two. Subsequently, Hunter, Scarpa, and many others were equally successful, though their accounts want precision. The points to be determined are, what ducts belong to the principal gland, which to the accessory gland, what course do they pursue, and what relation have they to each other? M. Gosselin, in 1843, was the first to resolve these points. He found that the orbital portion possesses two excretory canals, whilst the palpebral portion has six or eight, all of which run independently, and open separately on the conjunctiva.

Sappey, in 1853, demonstrated to the Société de Biologie that the number of ducts belonging to the orbital portion varies from three to five. They commence in the substance of the gland from each of the glandular grains by as many fine branches, which converge, unite, and form trunklets, and finally a main trunk. The main trunks run towards the concave surface of the gland, and pass from this face towards its anterior border. Having arrived at this plane, they penetrate the palpebral portion, running from behind forwards, and open four or five millimetres above the tarsal cartilage of the upper lid in front of the angle of reflection of the conjunctiva. The lowest of these orifices is situated at the level of the horizontal diameter of the globe of the eye, immediately behind the external angle of the eyelids; and as the conjunctiva is tense and adherent at this spot, it is not in general difficult, though the orifice is invisible, to introduce the point of a fine injection-tube. The openings of the other ducts are placed at distances of about three millimetres from each other, forming a curved line, the concavity of which looks downwards.

All these ducts are parallel, rectilinear, and very uniform in diameter. They do not anastomose, and have a thickness varying from a third to half a millimetre when injected with mercury.

In regard to the ducts of the palpebral portion, it may be noted that this portion of the gland consists of a variable number of lobules, sometimes of fifteen to twenty only, whilst in some subjects as many as thirty, thirty-five, or forty may be counted. From each of these a small duct arises, but these do not open directly and separately on the conjunctiva; they open into the excretory ducts of the orbital portion, on which they are disposed like the barbs of a pen on the quill. When the lobules which form the palpebral portion of the gland are very numerous, some are found to be placed outside the course run by these canals. These, of course, are at the margins of the main group. The small ducts emanating from these behave in the following manner:—the posterior ones unite and form a small trunklet, which is directed towards the conjunctiva in a direction parallel to the ducts of the orbital portion. Into this trunklet all the ducts of the neighbouring lobules discharge themselves, so that it gradually increases in size, and ultimately does not differ from that of the principal ducts in any sensible degree. Near the upper border of the palpebral portion two of these accessory ducts may in general be observed. At the lower border often one only is visible, and even this may be absent. The openings of the excretory ducts of the lacrimal gland are very easily demonstrated in the Calf, and also in the Sheep, in which animal there are only two; but when an attempt is made to find them in Man, the orifices are at first concealed from the most attentive consideration: various means have therefore been suggested to discover them. Winslow recommended insufflation with a tube of small diameter; many observers have employed a bristle; others, and M. Cruveilhier in particular, recommended that the parts in question should be immersed in water tinted with ink or carmine: but none of these methods are of much service. It is best to employ mercury as the injecting substance, and by diligently searching to find the conjunctival opening of the

ducts after removing the upper eyelid. The eyes of children of six or eight years of age are best adapted for experiment. The first duct being discovered, the rest may be found in succession. It is not necessary that the tube should be very fine, but it should be conical, so that the duct may fit lightly upon it when introduced, and thus oppose the reflux of the metal. As soon as the metal enters the duct it quickly spreads over the whole of the lobules belonging to it.

Sappey's observations have led him to the following conclusions:—That a division may be made into chief and accessory ducts. That the chief ducts are from three to five in number, spring from the orbital portion, and receive in traversing the palpebral portion all the canaliculi of the lobules situated in their course. That the accessory ducts to the number of two or three come exclusively from the palpebral portion.

It hence appears that the two portions of the gland are closely connected and associated with each other, and are not, as Gosselin and Tillaud were of opinion from their experiments, independent of each other. The latter observer used tartaric acid, which produces illusions by acting on the nerves, arteries, and ducts alike.

In its structure the lacrimal gland belongs to the type of acinous glands in all Mammals.

The disposition of the lacrimal gland is peculiar in the Cetacea. Hunter states that the tunica conjunctiva, where it is reflected from the eyelid to the globe of the eye, is perforated all round by small orifices, which are the openings of the ducts of a circle of glandular bodies lying behind it.

Rapp, (b) whose work on Whales is a standard one, states that although the Whales are said to have no lacrimal gland, yet, both in the *Delphinus delphis* and *D. phocaena*, he found a granular lacrimal gland which was disposed in a circular manner around the eye. The ducts opened by numerous very distinct apertures on the inner surface of the upper and lower eyelids. He was unable to discover any puncta or any lacrimo-nasal duct. In this respect the Seals and the Walrus agree with the Whales. The eyelids of Cetacea have no tarsus nor Meibomian glands. They have, however, an Harderian gland.

The Harderian gland of Mammals demands special consideration. It may be truly termed the gland of the nictitating membrane, for it is always situated in close relation with this. Its only secretion is poured forth by one or more ducts opening in the fold between it and the globe of the eye, or on the inner surface of the nictitating membrane itself; and when, as in the higher Quadrumana and Man, the nictitating membrane is absent, the Harderian gland also disappears.

It is present, according to Owen, in the Marsupials, in regard to which he remarks that in Marsupials the Harderian gland and retractor oculi co-exist, as usual in Mammalia, with the nictitating eyelid. This is always largely developed, and the conjunctiva covering its free margin is stained black. In speaking of the Monotremes, he only says both Monotremes have a well-developed membrana nictitans; but no mention is made of an Harderian gland.

It is interesting to notice that, according to Leydig, in the Mole the eye beneath the skin is in relation with a very large sebaceous gland, which in size and position corresponds to an Harderian gland.

The Harderian gland presents its highest development in the Rodents and their allies, and two excellent monographs have been devoted to the elucidation of the histology of these glands in the Rodents by Wendt and by Kamocki, (c) to which, so far as the histology is concerned, little remains to be added. Wendt lays down the general proposition that the size and development of the Harderian and of the lacrimal glands bear an inverse ratio to each other, so that where, as in many Rodents, the Harderian glands are largely developed, the lacrimal are inconspicuous; whilst in other cases, where the lacrimal glands are large, the Harderian glands are only to be discovered with difficulty.

The situation of the Harderian gland is in all instances at the inner anterior or nasal part of the orbit. It is in contact, in most instances, with the bony wall of the orbit, as in the Hare, Rabbit, Guinea-pig, Rat, Mouse, and Hedgehog; or it is embedded in a mass of fat, as in the Sheep, Ox, and Pig. Its outer surface is in relation with the globe of

(b) "Die Cetaceen," 1837, S. 93.

(c) Wendt, "Ueber die Hardersche Drüse der Säugethiere," 1877. Kamocki, "Ueber die sogenannte Hardersche Drüse der Nager" (*Archiv f. Biolog.*, Band ii., 1893, S. 709).



the eye, to the inner and posterior surface of which it is accurately adapted. It is further closely connected with the membrana nictitans; and indeed, in many animals, as the Sheep, the cartilage of the membrana nictitans is prolonged into the substance of the gland in the form of a broad, flat plate. The investment of the gland is directly continuous with the posterior surface of the nictitating membrane, and more externally with the conjunctiva, the submucous layer of which is continuous with the anterior part of its tunica propria. Wendt observes that if we divide the fold of conjunctiva between the globe of the eye and the third eyelid, and divide also the membrane which is attached to the bones of the orbit, proceeding from the membrana nictitans, the whole gland may be dragged out by traction on the membrana nictitans. In Oxen, Sheep, and Pigs, however, the quantity of fat present renders a careful dissection necessary.

The Harderian gland of the Hare and Rabbit is remarkable for being composed of two parts, an inferior larger rose-coloured mass (the pars rosea, or pars rubicunda major), and a superior smaller and whitish mass (the pars alba, or pars albescens minor, as they were called by Trapp). Other Rodents only exhibit a single gland in this situation. The two parts can be separated from each other with facility. The consistence of the pars rosea is doughy and slightly elastic, that of the pars alba is firmer. The rosy gland when viewed in section with the naked eye is porous and spongy, whilst the white is more compact and granular, and presents granules of intense whiteness. According to Kamocki, the two halves of the gland have only a single excretory duct common to both, which extends to near the free border of the membrana nictitans, and receives several ducts from each gland.

The external surface of each gland is invested by a thin and almost hyaline membrane. This corresponds to the dense investing membrane of other glands, which is usually termed the capsule or tunica propria. It is composed of loose connective tissue, the fibres of which are intermingled with wavy bands and bright cords of elastic tissue, the whole forming a felted elastic membrane, with numerous elongated and rounded cells containing nuclei in their interior, and giving off processes from their surface. From this external membrane, trabeculæ are given off, which penetrate in the form of broad bands into the interior of the gland, breaking it up into large lobules; and these again are subdivided by more slender trabeculæ into smaller rounded lobules; and so on till we arrive at the granules, acini, alveoli, or follicles which compose the gland. The amount of connective tissue between the acini is often so small that they appear to be in actual contact without losing their generally rounded form. The size of the follicles varies, but they may be round or oval, or pear-shaped, or figure-of-eight, or polyhedral, with irregular bulgings, which are particularly conspicuous in the white part.

As the interstitial tissue is very loose, and has at the same time a strong tendency to imbibe water, whilst the proper parenchyma of the gland swells in fluid with difficulty, the follicles of the gland become separated by the swollen hyaline connective-tissue, and the lobular composition of the gland is very beautifully shown. Near the surface of the gland the lobules present a slight convexity, whilst internally they are flattened against each other, and near the anterior border where the excretory duct is given off and the bloodvessels enter the lobules, assume a pyramidal form.

Examinations of the structure of the gland may be well made in fresh glands macerated in alcohol, and subsequently stained with picrocarmine and with hæmatoxylin.

According to Kamocki, there is a certain distinction between true acinous glands, such as the parotid, submaxillary, pancreas, and lacrimal, and the Harderian gland of the Rabbit, Guinea-pig, and Rat, in the circumstance that there is no narrowing of the excretory duct at the point of transition between the acinus and the duct. Kamocki, following the main excretory duct backwards, describes it as extending from the opening near the free border of the membrana nictitans to the gland, and lying on the inner surface of the cartilage. On reaching the gland it begins to branch, and gives off several trunks to each part of the gland—the pars alba and pars rosea. These subdivide into wide tubules, which proceed to the terminal lobules. But these last do not represent simple or compound vesicles or acini seated on the terminal branches of the excretory ducts, but are relatively long and wide, frequently branching

looped tubules, with lateral pullulations. The lumen of the proper gland-tubes is indeed somewhat larger than that of the peripheral extremity of the excretory ducts. Moreover, the proper gland-cells immediately succeed to the epithelial cells of the excretory duct at the point of transition, but the dilatation of the lumen is effected quite gradually. The histological features of the gland, therefore, in the animals mentioned (Rabbit, Guinea-pig, and Rat) assimilate it to the mucous glands of the oral cavity, œsophagus, trachea, pylorus, and Brunner's glands, and to the sublingual gland, and it constitutes a transitional form between true acinous and tubular glands.

The chief excretory duct of the Harderian gland is lined in Rabbits, near its opening, with a many-layered transitional epithelium resembling that of the membrana nictitans, and a few of the superficial cells may be observed to have undergone transformation into goblet-cells. Near its termination a few scattered acini of small serous glandulæ open into it, the structure of these acini agreeing with that of the lacrimal gland. Exactly similar serous glands are found in much larger numbers near the posterior border of the cartilage of the membrana nictitans, beneath its investing mucous membrane, and their excretory ducts open, quite independently of the excretory duct of the Harderian gland, on that surface of the membrane which is directed inwards. The laminated epithelium of the first part of the excretory duct of the gland is replaced more internally by a single layer of cubical epithelium. In the middle-sized branches of the duct, columnar cells are found, with rounded nuclei situated near the attached extremity, and having finely granular protoplasm in their interior. At the extremity of the duct, cubical cells reappear, with a nucleus situated at their centre. The sudden transition to the quite distinctly characteristic gland-cells is most marked in the red gland.

The characters of the acini themselves have been so carefully described by Wendt that little remains to be added by subsequent observers; and Kamocki's account is only confirmatory of the exactness of his statements.

Minute examination of the acini, Wendt says, shows that, as in other instances, they are hollow sacculi, composed of an investing membrane lined by epithelium, the products of secretion being discharged into the cavity. The investing membrane is hyaline, and apparently structureless, except for the occasional distribution in it of a nucleus. The cells form a single layer, and have been variously described as pyramidal, short columnar, or truncated conical form. They are so delicate that no investing membrane can be shown, and, when fresh, are so completely filled with fat that no details of their structure can be ascertained. Yet there is this difference in the disposition of the fat-drops in the rosy and in the white glands, that in the cells of the rosy gland the fat appears in large drops, whilst in that of the white gland it is in the form of white molecules, which hardly give the impression of fat. A similar material fills the cavity of the acini of the white part, giving to this portion of the gland the aspect of colloid thyroid. In very young Rabbits this contained mass is absent, and Wendt has not been able to fix the exact period when it is developed. He found that on chemical examination the molecules presented the characters of fat. The size of the follicles is on the average 0.3–0.4 mm., or about  $\frac{1}{100}$ th of an inch, though it may vary considerably, the larger ones being usually situated near the centre of the lobule.

If the cells of the pars alba present a certain similarity to the elements of the sebaceous glands, the cells of the pars rosea resemble those of the mammary gland in the stage of lactation, except that in the latter the disposition of the fat-drops in the interior of the cells is less regular and their size is much less uniform.

If the fat be removed by chemical means, the cells of the white part appear to consist of granular protoplasm, often with a distinct cell-wall and an excentric basally-placed nucleus. The cells of the rosy part, on the other hand, after similar treatment, present a network or plexus in their interior, the meshes of which correspond with the removed fat-corpuscles. The reticulum is sometimes granular, sometimes striated, according to the mode in which the gland has been treated, whilst in other instances it is homogeneous and bright. The reticulum of the pars alba is stated by Kamocki to be much more delicate, but still apparent. There is also a plexus which results from the presence of an intercellular cement-work, but there are no intercellular



ducts like those of the liver. The size and number of the large fat-drops in the red gland differ with the stage of secretion and with the age of the animal. In young animals smaller droplets are present, and these are for the most part deposited near the free or central extremity of the cells. The coalescence into large drops occurs only in older animals.

In regard to the connective tissue of the Harderian gland, there is, according to Kamocki, a layer of dense connective tissue with numerous elastic fibres beneath the epithelium of the chief excretory duct. In the middle-sized ducts and in the finer ducts there is a layer of transversely arranged nuclei, probably belonging to the propria. The parenchymatous connective tissue between the gland-ducts is very weakly developed. It is very loose, poor in cell-elements, in lymphoid structures, and so-called plasma-cells. It is only strongly developed around the larger vessels and coarser ducts, and there is also a larger quantity of elastic tissue. The distribution of the bloodvessels is free.

Kamocki has made a careful examination of the relations of the lymphatics and of the nerves, but has nothing of special interest to communicate in regard to them, particularly in the Rat. He has, however, never been successful in finding any ganglia in the gland.

The Harderian gland of the Guinea-pig presents the same characters as the pars rosea of the gland of the Rabbit. It is difficult to discover its very small excretory duct, since there is only a rudimentary membrana nictitans in the form of a semilunar fold. The small opening lies internal or posterior to the caruncle. The excretory ducts and their ramifications resemble those of the Rabbit, except that their lumen is smaller, and that they are more uniform in diameter. The droplets in the gland-cells are more equal in size.

The Harderian gland of the Rat resembles the pars alba of the Rabbit, and contains in its secretion, according to Kamocki, a large quantity of red colouring matter, which is not changed by the action of alkalies or of dilute acetic acid, remains undissolved in alcohol, ether, or clove oil, but bleaches in weak mineral acids, and is decomposed by strong mineral acids. Its presence in the lumen of the ducts renders their injection superfluous, and shows very distinctly in sections of hardened glands that they are composed of branched tubes. The cells contain no large fat-drops, but only a mist of granules. There are no pigment-granules in the cells, though some are visible in the secretion contained in the lumen of the tubes. The fat in the cells is strongly disposed to crystallise. The same feature is observable in the House-Mouse and in the Hamster: in the latter the secretion is destitute of pigment.

The account of the Harderian gland above given answers fairly well for all Mammals.

*Cartilage of the Nictitating Membrane.*—Many Mammals possess a peculiar rod of cartilage at the base of the nictitating membrane, which dips into the gland of Harder, and forms a support for it. It has been carefully described by Jules McCleod in the Sheep, in which animal it has the form of a long flattened bar, enlarging as it extends towards the deeper part of the gland, and stopping at a distance of only two or three millimetres from its extremity. It is composed of typical hyaline cartilage. The corpuscles—rounded, ovoid, or elongated—are irregularly distributed. In the central part they measure 15 to 25  $\mu$ . There is no indication of proliferation. Near the periphery the capsules become flattened, and are disposed in layers parallel to the surface, and the cells they contain pass insensibly into the flat cells of the perichondrium, just as in other hyaline cartilages.

The *perichondrium* presents nothing peculiar in its structure, but gives off numerous septa, which traverse the gland and aid in dividing it into lobules, the septa proceeding from the investing membrane of the gland.

Leydig says that the cells of this cartilage are filled with fat in the Rat and Rabbit. The rod represents in a normal and regular manner the pathological conversion of connective tissue into cartilage, such as may be seen in some tendons.

The secretions discharged by the lacrimal and Harderian glands of Mammals, after having discharged their functions, are conducted by two canaliculi, or rarely by a single canaliculus, to the lacrimal sac, and by this to the nasal cavity, the lower opening being situated near the posterior opening of the nares in some, and close to the anterior opening of the nares in others.

The lacrimal bone is wonderfully constant throughout

the Mammalia, being absent only in Whales, Seals, and the Walrus. It varies, however, considerably in point of size, and in the extent to which it encroaches on the face. It rarely coalesces with the other bones of the face. In the adult Pangolin, however, no sutures can be detected. In by far the larger number the lacrimal bone is perforated by the canal for the canaliculi, and this opening appears to be double in the Kangaroo, Pig, and some of the Phalangers. In the Hyrax, Lemurs and Monkeys, and Man, the foramen lacrimale superior, or upper orifice of the naso-lacrimal passage, is formed by both the lacrimal bone and by the superior maxillary. In a large number of cases the opening for the lacrimal canal is within the orbit, but in some it is just at the margin of the orbit, or orbito-facial, whilst in others again it is entirely facial. Good examples of the orbito-facial position of the opening is seen in the Phalangers, Opossums, Wombat, and Kangaroo, whilst the facial position of the opening is seen in the Sloth and Deer.

It does not appear that any great importance can be attached to the position of the opening, since in animals so nearly allied as the Sheep and Deer the position is different, in the Deer being facial, whilst in the Sheep it is quite orbital. The size of the lacrimal bone is immense in these animals.

The position of the lacrimo-nasal canal in the bones differs considerably, and in some animals is very characteristic. The Seals and Walrus do not appear to have any, nor is there any in the Whale, where the lacrimal bone, if present at all, is only a thin wedge of bone. In all Australian and American Marsupials it is facial; in the Edentata, subfacial; in the Carnivora it is generally orbital.

The lacrimal bone is small, thin, and concave in the Primates, and merits its name of *os unguis*; but in the Indris, a genus of Lemurs inhabiting Madagascar, it is large and thick, and bent in the middle part, where it forms a part of the border of the orbit, and extends largely upon the cheek.

A small bone is frequently found at the lower part of the lacrimal, between it and the superior maxillary bone, a thin transparent ossicle of square form, presenting many foramina, which is not described in any of our text-books except Gray's; but which was described by Dr. Emile Rousseau, in 1828, under the name of *petit unguis*, or *petit lacrimal*. It is largely developed in some of the lower animals.

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**EXTIRPATION OF THE LARYNX.**—At a meeting of the Philadelphia College of Physicians (*Medical News*, July 7), Dr. Silas Cohen read a paper upon the question, "Does excision of the larynx tend to the prolongation of life?" He has had no personal experience in the operation or its results, his opinions being founded solely on the consideration of the sixty-five cases of total extirpation that have been published. Four of these operations were performed for non-malignant disease, two proving fatal. Of the sixty-one remaining cases, in four *sarcoma* was the cause of the operation; and Dr. Cohen observes that "taking for granted, as we are bound to do, that death was imminent in these five cases when the operation was resorted to, we have a considerable prolongation of life in every instance, and a remarkable prolongation in two (the patients being still alive and well six and two years respectively after the operation), or in 40 per cent. As far as these limited statistics go, therefore, the operation in hopeless cases of *sarcoma* is worthy of the serious consideration of the surgeon." The account of the remaining fifty-six operations for *carcinoma* is far less favourable. Death is recorded in forty of these cases: in seventeen it occurred within three days, and in five more within eight days, usually from subsequent pneumonia—a disease which Dr. Cohen has frequently met with in operations upon the neck, in which the air-passages have not been opened. In two cases recurrence took place, after three and seven months; and in fourteen neither death nor recurrence has been reported. The general conclusion Dr. Cohen arrives at is, that in *carcinoma* excision does not tend to the prolongation of life—the prolonged existence of a very few cases not compensating for the shortened existence of many others. The greatest good for the greatest number appears better secured by dependence on the palliative operation of tracheotomy. This produces little shock, very slight danger of pneumonia, and much less risk of septic infection. Life is not likely to be sacrificed in any instance, and existence is much more comfortable after it than after laryngectomy.



A NEW SERIES OF  
CASES OF FILARIA SANGUINIS PARASITISM  
OBSERVED IN EGYPT;

WITH THE RESULTS OF EXPERIMENTS ON FILARIATED  
SUCTORIAL INSECTS.(a)

By PROSPERO SONSINO, M.D. (Pisa).

(Continued from page 342.)

PART I.—Concluded.

In two cases (13 and 21) I found filariæ associated with lung disease. In the first the symptoms are of a chronic pulmonary catarrh with bronchiectasis, and the other I suspect to be a case of tubercles extended to the larynx. It is then clear that in both the cases the lung disease is only a simple association. In Case 13, in which simple purulent sputa without blood were seen, I could not find any filariæ in them. But in Case 21, where the sputa were abundantly bloody, the first detection of embryo filariæ was made in them, and the successive examination of the blood taken from a finger at 7 a.m. confirmed the filarial infection. The embryo filariæ detected in the sputa were not living.

*No Detection of Distoma Ringeri.*—By the way, I may say that on examining the bloody sputa of this last case, as of other hæmoptical patients, I had always in mind Dr. Manson's discovery(a) of a parasitical hæmoptysis due to a new fluke, *Distoma Ringeri*, but till now I have not detected the characteristic eggs of that fluke. It is possible that the geographical distribution of it does not extend to Egypt and Africa.

I am disappointed that I cannot complete the history of Case 22, which I mention only as regards the hæmaturia, that is still under treatment; whilst the patient offers some interesting conditions as to which I cannot determine whether they have or have not direct connexion with filaria. The young man called on me asking for relief from an enlargement of the right testis, but I perceived that he offered also two hard masses not larger than a walnut along the spermatic cord, that were independent of the testis and seemed to be some cystic productions. He had had a long time before a perineal abscess, and last summer a little abscess in the scrotum. There is also a hydrocele on the left side. The enlargement of the testis has now ceased, but as for the cysts, we have not yet determined (Dr. Vernoni, who also visited the patient with me, and myself) how to treat them.

In no filarious individuals did I get so large a number of embryos in a single drop as in the woman of Case 19, from whom I took the blood at 10 p.m. of February 8 of this year. Having spread the drop on four slides, one of these offered me as many as ten individuals under the field at  $\times 100$ . The gnats and bugs taken from this woman were, of the insects examined, even more charged with embryos. This woman, about fifty-five years of age, looks very pale, weak, and older than she is, but she says that she suffers from no complaint, and I could find nothing but an evident state of anæmia. I tried to hinder the evaporation of the filarious blood of some preparations, by putting some wax round the edge of the covering glass, and I could by this contrivance maintain living filariæ for some days. Once in a preparation of the blood taken at 10 p.m. from the woman of Case 19 I succeeded in keeping living filariæ till the seventh day, and one of the embryos was still living even on the eighth day after the extraction of the blood.

*No Detection of Filaria Eggs in Lymphous Urine.*—In the examination of the lymphous urine of my patients I had never detected any kind of eggs that may be considered filaria eggs, as Dr. Manson happened to observe in two of his cases.(b) Dr. Manson's new theory on the diseases originated by filaria is based upon the fact of the miscarriage of the eggs from the body of the mature female worm, which seem viviparous. New observations only, and especially anatomo-pathological ones, as Dr. Manson judiciously says,

will decide on this ingenious theory, against which I have not to oppose any positive fact. Yet it seems to me rather probable that the obstruction of the lymphatic vessels caused by plugging with miscarried eggs may happen only as an exceptional fact, and that more often the adult worm itself may be the cause of the obstruction and irritation. Dr. Manson himself, who had explained the absence of embryo filariæ in some patients suffering from chyluria by admitting the presence of adult filariæ of one sex only, must then admit that lymphuria and other allied diseases may have often an origin different from that which is now sustained by him. But as to the eventual presence of eggs of filaria in the lymphous urine, I argue that this fact may be the consequence of the death of the parent worm, and the destruction of its body, more probably than of miscarriage, which, if happening frequently, would be rather considered as a normal fact, and as the consequence of the worm being ovoviviparous instead than viviparous. I add, too, that the characteristic of the filaria eggs to adapt their form to the external pressure, as Dr. Lewis had described, does not render them the more likely to produce obstruction, as is the case with other firmer eggs, like those of bilharzia.

*Cases of Disease in which Embryo Filariæ were not present.*

—In my previous paper I related a case of lymphuria in which no filaria was found, though an accurate research had been made several times at different hours. I have now to relate two new cases with the same negative result, in one of which the filaria was searched for only some time after the cessation of the attack of lymphuria; in the other when the complaint was still present.

(a.) A native Jewess, about thirty-five years of age, thin, and of feeble constitution, called me in, in June of last year, and told the following history:—Four years ago she suffered from a large and deep abscess near one knee, from which she recovered without bad consequences. Eight months ago she began to suffer from milky urine, and the attack lasted for about six months, viz., till two months previous to my visit. The attack left her feeble and anæmic; and soon she began to suffer from pain in the left side of the chest, with difficulty of respiration and some cough. The doctor treated her for a pleuritic effusion. At the moment of my visit the pain in the left side was not at all ameliorated, but was also extending down towards the renal region, and was felt about the epigastrium. I perceived a certain feebleness of the respiratory sound, with a little dulness on percussion. The examination of a drop of blood taken from a finger at 9 p.m. did not offer any embryo filariæ. I prescribed some tonics, and I ceased to visit the woman a few days afterwards on account of her departure, and had no opportunity of examining her after her return.

(b.) On January of this year Dr. Mackie, of the Diaconess Hospital of Alexandria, sent to me a patient, desiring me to examine his milky urine, as he (Dr. Mackie) had repeatedly done so without discovering any filariæ microscopically. The patient, a native employed in the railway administration, was thin and emaciated; presented no hydrocele, but only a certain degree of swelling along the left spermatic cord. He was suffering, for only a few days, from a third attack of lymphuria, with some pain in the right renal region. The first attack happened eight years ago, and, like the second, lasted for several months; and he remembers well that in the second the urine offered often the white jelly-like coagulum, but never blood. The present attack does not offer coagulum in the urine, this being not much charged with lymph. That emitted in my presence was yellow, opaque, and coagulated both with nitric acid and heat, as well as with rectified alcohol. Ether separated from it some oily matter. But I did not find, at the microscopical examination, any embryo filariæ, though I spent much time in searching for them in several samples of the urine. I thought it well, too, to search for them in the patient's blood. But three examinations of blood taken from a finger, and made on January 16, 17, and 20, at respectively 9.30 p.m., 10 p.m., and 7 a.m., were equally negative as to the presence of embryo filariæ in the body.

But these two cases of lymphuria without filaria, as well as the first, of which I gave the full history in my previous paper, may be explained by the hypotheses that I suggested in that paper—either that the adult filariæ had previously passed out with the lymphous urine, or had died and decomposed in the body of the host; or that the patient had been

(a) "*Distoma Ringeri* and Parasitical Hæmoptysis," by P. Manson, M.D. (reprinted from the *Customs Medical Reports*).

(b) "*Note on Filaria Disease*," by Patrick Manson, M.D., in the *Customs Medical Reports*.



Synopsis of the Second Series of Cases of Individuals affected by *Filaria Sanguinis* observed in Egypt.

	Years of the observation.	Where observed.	Origin, profession, state, etc.	Age (years pre-sumed).	Disorders and diseases associated.	Where embryonal filariæ were found.
11	1882	Private practice, Cairo ...	Woman, Maltese, since many years in Egypt	55	Hæmaturia, weakness, renal pain	In the bloody urine, and in the blood from a finger after the cessation of hæmaturia.
12	1882	Diaconess Hospital, Alexandria	Native Mohammedan, a butcher	45	Hæmaturia, elephantiasis scroti; before suffered from lymphuria	In the blood taken from the scrotum and from the finger.
13	1882-83	Private practice, Cairo ...	Jew, native of Jaffa, since many years in Egypt	25	Hæmaturia from bilharzia (observed in 1874), now, apparently recovered; at present lung disease	In the blood from the finger—not in the mucous purulent sputa.
14	1882	Private practice, Cairo ...	Native Copt, clerk in the Cavastre Administration	22	Lymphuria ... ..	In the blood from the finger.
15	1882-83	Private practice, Cairo ...	Native Jew, clerk ... ..	32	Lymphuria many years ago; now, ventral hæmatocele, emaciation	In the blood from the finger and in the blood from the ventral hæmatocele.
16	1882	Private practice, Cairo ...	Native Jew, merchant ... ..	30	Lymphuria, weakness, anæmia...	In the blood from the finger and in the milky urine.
17	1882	Private practice, Cairo ...	Native Jew, merchant, cousin of the preceding one	30	Lymphuria long ago; at present no disorder, but good and robust health	In the blood from the finger.
18	1882-83	Private practice, Cairo ...	Native Jew, a broker ... ..	32	Lymphuria, anæmia, weakness ...	In the blood from the finger and in the milky urine.
19	1883	Private practice, Cairo ...	Native Jewess, mother of the preceding one	55	Lymphuria twenty-five years ago; no relapse; weak and anæmic	In the blood from the finger.
20	1883	Private practice, Cairo ...	Mohammedan girl ... ..	15	Lymphuria ... ..	In the milky urine. Not examined the blood.
21	1883	Private practice, Cairo ...	Native Jew, exchange broker	27	Long ago, hæmaturia (probably from bilharzia); now, chronic disease of the lung	In the bloody sputa, and subsequently in the blood from the finger.
22	1883	Private practice, Cairo ...	A native, but of Italian parentage	30	Hæmaturia, anæmia, enlargement of one testis and of spermatic cords	In the blood from the finger.

the host of adult filariæ of one sex only. The probability of the first hypothesis can now receive confirmation from the result of the interesting case which happened in the London Hospital under Dr. S. Mackenzie, in which the patient, who for a long time offered the embryos in the blood and in the urine, ceased to offer them two months previous to his death.(g)

Even a case related by Dr. Manson (Case 63 in his last "Notes on Filaria Disease"), of an abscess in the thigh, in which some fragments of a mature female worm were found, and in which case the previous examination of some milky lymph extracted from an enlarged gland was negative as regards embryos, confirms the probability that in some cases of disease the embryo filariæ cease to be present because of the death of the parent worm.

I think I may, without hazarding much, suppose that, in the woman of whom I spoke just before, it is possible that the symptoms of pleuritic effusion may have been connected in some manner with an emigration and death of the mature worm, though fortunately the accident had not a fatal result for the host of the parasite.

(c.) A case again in which the search for embryo filariæ was negative was offered by an old man, whom I saw at the Greek Hospital in Alexandria in April last year, and who had elephantoid disease both of the legs and scrotum, but with anasarca and ascites. I was informed afterwards that the man died some days after my visit, and that Dr. Kartulis at the post-mortem examination had not succeeded in finding either embryonal filariæ or the adult worm, although he had searched for them in the vessels of the scrotum and in the inguinal glands, as well as in the ductus thoracicus. But there were many pathological lesions of important organs, and principally atheroma of the aorta, cirrhosis of the liver, and nephritis; and thus it is possible that in this case the elephantiasis had had its origin in obstructions of a different kind from those produced by filaria.

(d.) On June 8 of last year I saw too a fellah of Mohallet-el-Kebeer (in-patient at Kasr-el-Ain Hospital) with a large elephantiac scrotum, which was complicated with some fistulous tracts in its posterior part. I was permitted, through the kindness of Dr. Fouzee Bey, to take a drop of blood from the scrotum, and a drop of serum from a knot in the hypertrophied scrotum. The extraction of the blood was made at 8.30 a.m., and the result was negative as regards embryo filariæ. But, though I have not examined this case thoroughly, I have the conviction that it was rather a case of *spurious elephantiasis* due to urinary fistula, as it is seen frequently in Egypt, than a case of true *elephantiasis Arabum*.

(c) See reports of the London Pathological Society in the *Lancet* of May 27, 1882.

*Conclusions about my Observations on Filaria Parasitism in Egypt.*—From the knowledge gained from the twenty-two cases of filaria parasitism till now observed, I think I am authorised to conclude:—1. That filariated individuals may live long without presenting disorders of importance, and even enjoy good health. 2. But that during their infection they are liable to attacks of lymphorrhagia, and especially of lymphuria, the lymphorrhagia in some cases assuming the form of lymphocele. The occurrence of the one or the other complaints, I contend, depends upon the seat of the adult worms. 3. That hæmorrhage, and especially hæmaturia, may also be the sequel of the filarial parasitism, but exceptionally; and probably they are the consequence of the passage of mature filariæ into the bloodvessels. 4. That, in Egypt, hæmaturia even in filariated patients is generally due to the co-existence of bilharzial disease.

*Gravity of Filarial Infection, and Prognosis.*—If I might judge from only the twenty-two cases of filarial infection observed by myself in Egypt, I ought to infer that filarial infection is not so grave as to immediately endanger life, for out of twenty-two cases, in many of which I can argue that the time of infection mounted back to many and many years ago, there has happened up to now the death of one patient only (Case 2 of the first series), and this was not apparently caused by the filarial disease. Of the other cases, save three individuals, whom I have altogether lost view of, I can assert that they are all living, and, with the exception of one, offer no immediate danger. Yet, for the reasons given in my previous communication, and in accordance, too, with the result of the observations made in other countries, I must still consider the worm as a dangerous parasite which may eventually cause the death of its host. I will add that, if I recall many cases of obscure disease with fatal result, which it happened to me to observe, either in my practice or in that of other practitioners, there are, in my opinion, several in which, if search for embryo filariæ had been made, the detection of them would very probably have afforded the key to the origin of the process of the disease, which now rests a mystery hidden in the burial-ground.

*Treatment.*—It is rather vexing to have dwelt so much upon a pathological condition without being able to add anything new about what is the first aim of the practitioner—how to cure. But this is my position with the filarial disease. I cannot modify what I have said in the previous paper—viz., that we have no means at our disposal for procuring or facilitating the favourable event of the exit of the parasite from the body, with the exception of surgical means, when the adult filaria is found in a part of the system that may be removed. But, as respects lymphuria especially, I can now suggest the yellow santhal oil as being better than any other balsam as a remedial agent; as it has seemed to me to



possess some efficacy in checking the morbid discharge, whatever may be its mode of action.

But if the means of treatment of the infection at our disposal are so deficient, we can rejoice that, as regards prevention, we have attained all the progress that we could aim at, as by the discovery of the intermediate host of the parasite it is still more confirmed that human beings catch the parasite from drinking water, and that the use of boiled or filtered and well-preserved water can assure impunity from the filarial infection. And it is better to prevent than to have to cure.

(To be continued.)

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

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(Continued from page 345.)

### CHOLERA ASIATICA MALIGNA—Continued.\*

#### Treatment of Cholera.

THE states of the Liver and Kidneys in cholera are so full of interest and importance pathologically, and still more in a therapeutic point of view, that it is surprising that they have never yet been made the subjects of thorough clinical investigation. Algide cholera, being more remarkable than any disease with which we are acquainted for the almost entire absence of *χολή*, bile, from the evacuations during its worst stage, that of collapse, we should approach more clearly to descriptive precision if we called it Acholia, and to pathological accuracy if we termed it Asiatic Pernicious Fever,—thus wholly separating it in our ideas, as it is absolutely distinct in reality, from several disorders of the bowels with which it is still unhappily confused.(a)

As a general rule, exceptions to which are rare, bile pigment is not positively detectable in the stools and vomited matter of the algide stage, during which it appears that the excretive functions of the liver are, in the large majority of cases, arrested as absolutely as those of the kidneys are in all cases. Dr. Edward Goodeve found that "nitric acid occasionally gives red reaction in the" [rice-water] "liquid. This is probably due to a small quantity of bile mixed somehow with the evacuations, but it is not certain what it is." It is here to be remarked that any bile which may appear in vomited matter and alvine evacuations, whether during the collapse stage or early in the stage of reaction, must not be viewed as positive evidence that hepatic action is not absolutely arrested, as its source may be the gall-bladder. Tanner says that cholera stools contain only a trace of biliary matter. During the epidemic of 1868, Dr. Thudichum observed, in death during the stage of collapse, that the secretion of bile was completely arrested; and that, in extreme cases, a clear white fluid percolates through the hepatic ducts, free from bile, colouring matter, and albumen. It seems to be simply water, with a trace of alkali and a vestige of mucus. In some instances the fluid was coloured, but contained no bile-acids. Placing cases of acute bilious diarrhoea or hepatic flux entirely aside, cases do occasionally occur in which the vomited fluid and the dejections, during the algide stage, are distinctly coloured by bile. This happened in the case of an administrative medical officer who died in Fort William, Calcutta, about twenty-six years ago; and again, in 1874, among the constantly varying types of true cholera which occurred in Calcutta, there was one in which the fluids ejected during collapse were distinctly coloured by bile. In March, 1875, I had, in my ward, a European woman who was attacked with Asiatic cholera after having taken a well-known "antibilious" purgative on the night of February 27. She died on March 4, at about eleven o'clock a.m., never having rallied from the collapse

stage, and never having passed urine. She continued, up to two o'clock on March 3, to vomit a bilious fluid, the quantity of bile voided being far too large to allow the suspicion that it came merely from the gall-bladder. Stools ceased on the afternoon of the 1st. They were from six to seven in the twenty-four hours, and were markedly coloured by bile. The severity of this case was much aggravated, and the evacuating treatment interfered with by a tendency to abort, the poor woman being in the second month of pregnancy. In 1874 there was a great and very unusual tendency to bilious vomiting in the reaction stage and at the beginning of convalescence from true cholera.

The ordinary and most favourable type of alvine evacuation, after reaction has become established, is a free and perfectly fluid fæculent and very bilious stool, of a warm brown colour, of which there should be some five or six during the twenty-four hours. Not unfrequently the first evidence of improvement is the passing of what are locally known as "Calcutta mud" stools, from their close resemblance to the dirty greyish mud of the Hooghly.

The behaviour of the Kidneys in cholera is, of course, far more open to clinical observation than that of the liver is. As a general rule, there is a considerable excess of bile-pigment in the first urine passed in cholera, and even far on in convalescence traces of biliary matter are frequently present in this excretion.

It is almost needless to say that, exceedingly as the types of cholera vary from year to year, and even from week to week, there is, in every case, complete suppression of urine during the algide stage; and that, however distinct the subsequent reaction may be, *we are never satisfied that the danger of collapse is over until urine has been passed*; and that we can never feel confident that our patient's second great peril, *the danger of uræmia, is over until the free excretion of perfectly healthy urine is re-established*.

Dr. Begbie found that the first urine is of diminished density, and generally contains albumen and bilious colouring matter, with the ordinary salts, but little or no urea.

In his article on Cholera, in "Reynolds's System of Medicine," Dr. Goodeve wrote: "At first it" [the urine] "comes scantily, high-coloured, and an ounce or two, with a strong and peculiar animal smell, deficient in urea perhaps, but not in all animal principles, generally albuminous, with many transparent casts. The albumen or allied compound, when present, is not always detected by nitric acid, though often by heat, giving a deposit not dissolved by nitric acid when the nitric acid test alone failed to detect it. The urine often turns pinkish with nitric acid."

In the cholera season, extending from February to June, 1868, I, with the aid of my very able House-Physician, Baboo Raj Mohun Banerjee, commenced a series of observations upon the *specific gravity* of cholera urine, which, with an interruption of twenty months, I continued until I left India at the end of March, 1876. The general result of very numerous observations was that the first urine usually owes its high colour chiefly to the presence of bile-pigment. Blood has not been detected. The fluid is turbid. *The specific gravity is generally high, from 1020 to 1026*. The reaction is generally acid. There is commonly a sediment of epithelium desquamated from the renal tubes. Albumen is probably always present, most frequently in small quantity. Such urine may be passed (the catheter has to be used once or twice in many cases) twice or thrice, generally with a high, but reduced, specific gravity, as 1019. The case advancing in progress to another very distinct stage, the flow of urine is more free, the fluid is usually transparent and pale, and *the specific gravity is low—from 1012 even down to 1102*. Bile-pigment is generally present, and may frequently be detected up to the time of the patient's discharge; it usually out-stays the albumen. When the case does well the albumen usually disappears in from one to three days, but I have found it as late as the twelfth day. Renal epithelium has been noticed as late as the thirteenth day. During tardy convalescence phosphates often appear in the urine. *Whenever, in cholera, there are albumen and bile-pigment in urine of a very low specific gravity, what is now generally called uræmia, or, as it appears more correct to term it, cholo-uræmia, is to be apprehended and resisted*.

The following abstracts of cases, taken from many, fairly illustrate these principles:—

Charles S., admitted collapsed March 6, 1868, at noon. Reaction commenced in forty-six minutes.

(a) The active mischievousness of this antiquated name is displayed in the fact that even so modern a writer as Dunglison says that it is derived from *χολή*, bile, and *ρεω*, to flow, because it arises principally from a superabundance of acrid bile. This, in true Asiatic Cholera, is, of course, precisely the reverse of the fact.



First urine passed on the morning of the 7th—scanty, high-coloured, specific-gravity 1024, traces of albumen.

8th.—Bowels free; no vomiting; urine free, specific gravity 1012; no head symptoms.

9th.—Vomited once; two stools; *urine copious*, specific gravity 1102, traces of albumen. Towards the evening evidences of cholo-uræmia appeared, he became delirious and restless, was constipated, and vomited several times.

10th.—Specific gravity of urine 1020, traces of albumen and phosphates, bile-pigment. The head symptoms passed off and vomiting ceased.

11th.—Doing well.

17th.—Discharged.

Charles M., admitted in a state of collapse July 19, 1863. Reaction took place on the following day.

The first urine was passed on the 21st; specific gravity 1021, scanty, turbid, acid.

22nd.—Urine profuse, limpid, specific gravity 1004, traces of albumen. There were now symptoms of cholo-uræmia—dulness, drowsiness, constipation, and vomiting. Gentle purgation, sinapisms, and fomentations over the loins.

23rd.—Bowels moved several times; vomiting ceased; urine free, specific gravity 1008, traces of albumen; no head symptoms.

24th.—Urine contained traces of albumen, specific gravity 1017. In other respects doing well.

25th.—Traces of albumen, specific gravity 1014.

26th.—Doing well. No albumen in the urine, specific gravity 1020.

29th.—Discharged, well.

Shiboo, admitted collapsed November 25. Reaction towards evening.

26th.—No urine; head symptoms, dulness, vomiting, constipation, laboured respiration, with thickly coated tongue and congested eyes; bowels constipated. Conjee-water injection; mustard poultice to loins.

27th.—No urine; uræmic symptoms; purgatives, dry cupping over the loins, fomentation.

28th.—Urine scanty, specific gravity 1026, slightly albuminous, and with bile-pigment.

30th.—Urine 1004, slightly albuminous; head symptoms, vomiting, constipation, gentle purgation.

December 1.—Urine free, specific gravity 1012, albuminous; bowels open; no head symptoms.

2nd.—Urine specific gravity 1016, traces of albumen. Doing well.

3rd.—Urine 1016, no albumen. Doing well.

4th.—Urine free, 1018, no albumen.

5th.—Urine free, specific gravity 1022. Doing well.

9th.—Discharged, well.

The following case is singularly remarkable for the extremely low specific gravity of the urine, which continued far into convalescence. At first the urine was, as is usual, of high specific gravity; thenceforward, up to the time at which he was discharged, apparently quite well, on the forty-first day, its specific gravity did not rise higher than 1011. Moderate, but marked, symptoms of cholo-uræmia were observed—drowsiness on the eleventh day; restlessness (jactitation) on the third day; and insomnia on the fourth and sixteenth nights; and severe headache on the thirty-eighth day, when the urine had the (in this case) unusually high specific gravity of 1011.

The continued presence of albumen in the urine up to the twelfth day, of epithelium up to the thirteenth, and of bile up to the date of his discharge on the forty-first day, taken together with these symptoms, kept up constant apprehension of cholo-uræmia.

James W., admitted March 30, 1874, in a state of collapse. Reaction took place on the 31st, and urine was passed on this day, specific gravity 1022, without sediment, but with albumen and bile, bilious vomiting, and purging.

April 1.—Bladder relieved by catheter of twenty-nine ounces of urine of acid reaction, albumen about one-sixth, and bile present, no sediment, specific gravity 1019.

During the next six days he made water freely; stools loose.

On April 8 (tenth day) the specific gravity was 1020, acid, with slight traces of albumen.

On the 9th (eleventh day of illness) there was a tendency

to vomit; there were five brownish-yellow stools. The urine was 1010, slightly albuminous, and it is noted that he was somewhat drowsy.

On the 10th the urine was of the same specific gravity, with a slight trace of albumen.

11th.—Specific gravity 1012, no albumen.

13th.—Specific gravity 1006, reaction alkaline.

The urine continued to be alkaline until April 21 (twenty-third day), when it became slightly acid, with a specific gravity of 1011.

Thenceforward the reaction continued to be acid.

The stools were frequent and thin up to the fourteenth day. On the sixteenth day there were only two semi-solid stools and no vomiting, and the specific gravity of the urine was as low as 1004; insomnia was complained of. On the seventeenth day there was only one stool, no vomiting, the specific gravity of the urine was still 1004; the patient had slept well. On the eighteenth day there had been a stool in the night, and there was another late in the day; the specific gravity of the urine was only 1002. On the following day also there were two stools; no vomiting; he had slept well; the specific gravity of the urine was 1004. On the seventeen succeeding days on which the urine was examined, the range of specific gravity was 1010, 1009, 1010, 1006, 1010, 1007, 1005, 1006, 1008, 1010, 1011, 1010, 1009, 1010, 1010, 1011, 1008. During the whole of this latter period the rule was one stool in the twenty-four hours, and the appetite was generally good.

This case shows that, while a very low specific gravity of the urine after cholera is always to be viewed as an indication for extreme watchfulness of the patient's condition, and for caution in treatment and dieting, it is not by any means invariably, as regards prognosis, an extremely grave sign. Still it will be noticed that, on the tenth day of the illness, there was urine of the specific gravity of 1020, with slight traces of albumen; on the following day, the urine being still albuminous, the specific gravity suddenly fell to 1010; and drowsiness was observed; the bowels were, however, free. Again, when, on the sixteenth day, there were only two semi-solid stools without vomiting, the specific gravity of the urine being so low as 1004, there was insomnia.

When I first assumed my charge at the Medical College Hospital, in the cholera season of 1862, I found that my colleagues had an established system of treating the collapse stage of cholera. Their leading objects were:—

1st. *To arrest Vomiting and Purging.*—The rice-water evacuations were regarded as being, potentially, hæmorrhage. This was to be checked by styptics, principally acetate of lead; but opium and other narcotics were to be avoided as tending to produce uræmia, in the reaction stage, by locking up the excretions.

2ndly. *To obtain Reaction.*—Diffusible stimulants, especially aromatic spirit of ammonia, were given steadily every quarter to half an hour until reaction set in. The body and limbs were rubbed with dry ginger powder by relays of active ward coolies—one to each limb. Large sinapisms were applied to the præcordial region and abdomen.

I then adopted and generally adhered steadily (except when new plans of treatment, which appeared to deserve trial, failed in my hands) to my colleagues' therapeutic principles in treating the collapse stage; but I made some changes in the details of their treatment. In choosing a styptic, I preferred tannic acid (ten grains after the first, and five grains after every subsequent rice-water evacuation, whether by stool or vomiting) to acetate of lead, which, if absorbed, was likely to act as a depressant. To ammonia I objected on account of its affinity to urea, and I always preferred chloric ether as a diffusible stimulant. I ordered dry ginger friction only to the *trunk* of the body, considering that rubbing the extremities could only tend to increase the already excessive congestion of the vessels of the great cavities. I therefore had eight hot-water bottles, frequently changed, in bags of thick flannel applied to the limbs and trunk in every case, and had recourse to strong shampooing (kneading) of the limbs only when cramp was present.

Sydenham gave *Opium* in cholera, and specially thanked Providence for the gift; but Copland tells us that Frank and Schmidtman justly acknowledged the importance of Sydenham's observation that, when opium "is given too early, much disorder of the bowels and abdominal organs, with more or less fever, continues afterwards to be complained of,



evidently owing to the arrest of a salutary effort, and the retention of morbid secretions." How, then, would these authorities have explained the undoubted good which opium effects in absolutely arresting the premonitory diarrhoea? Macpherson gives opium in the premonitory diarrhoea, and considers that, in the invasion of cholera, opium (laudanum) "is still our chief remedy for a time." When collapse is accompanied with a tendency to stupor, violent vomiting and purging having ceased, he takes it for granted that opium will have been given up. I certainly would not give opium where vomiting and purging were not exhausting the patient, and where stupor was threatened. Macnamara gives opium in the early stages, but not in collapse, even when frequent purging and vomiting continue. Drs. Aitken and Fergus maintain that opium is only to be given "if the evacuations are still bilious, the pulse fair, and the skin warm," and insist that "when vomiting, rice-water purging, and cramp set in, it is then too late for opium." In my hospital practice I scarcely ever saw a case of cholera which had not advanced at least to this latter stage; and it was then that, in respectful non-concurrence with authority, I gave opium. I long eschewed its use, except in premonitory diarrhoea; but, as my views regarding cholo-uræmia became clear, I gave laudanum a cautious trial in the collapse stage, and afterwards generally used it. I think that it aids the tannic acid in arresting the gastric and alvine evacuations, every one of which reduces the patient's vital powers distinctly a step lower. It aids the stimulant action of the chloric ether; and if it does, as I believe it does, assist our first therapeutic triumph, the establishment of reaction, we have no reason whatever to assume that it interferes with the restoration of the functions of the liver and kidneys. Even if it be assumed that it does so, there lies before us the necessity of bringing about reaction, and we have at our command a clear line of treatment for the cholo-uræmia.

The patients were well watched, the laudanum was given cautiously, and was not continued after the rice-water evacuations had ceased. Thus used, I never saw it cause stupor or any other evil effect.

Although there may be no great power of absorbing drugs into the system during the algide stage, astringents, stimulants, and opium certainly do appear to act. It has been observed that, in most great outbreaks of pestilence, persons die suddenly, almost without symptoms. They fall, perhaps in the streets, struck down and overwhelmed by the concentrated intensity of the poison. I know of cases of cholera in which death occurred, without vomiting, after one or two gelatinous stools. At the commencement of cholera outbreaks, when the natural tendency to death is at its maximum, we shall, I fear, always lose patients in the stage of collapse, but many patients are brought out of a state of pulseless collapse by the treatment described above.

We have shown that the first urine passed after an attack of Asiatic cholera is generally acid and turbid from inflammatory products or organic *débris*, and contains albumen and bile-elements. Its specific gravity is high, apparently only in consequence of the presence of the above products.

As the urine becomes limpid, its solid matters as well as the albumen and bile-elements diminish, and the specific gravity is almost always low. When it is slow in losing its albumen, and remains of a specific gravity between 1002 and 1010, and there is a tendency to constipation, cholo-uræmic danger must be apprehended, and vigilantly and actively guarded and fought against.

That dangerous complication which, setting in rather late in the algide stage, or almost at any period before the excretive functions of the kidneys and liver have become re-established, destroys multitudes of cholera patients by blood-poisoning (constituting the second and last great peril of cholera, collapse being the first) is generally called *uræmia*. To be understood etiologically and to be treated with success, it must, however, be recognised and dealt with as *Cholo-Uræmia*, because in it we have, in the bile-pigmented albuminous urine of very low specific gravity, and also in the absence of the free bilious stools, which latter are essential to recovery from cholera, evidences that the terrible condition of blood-poisoning, with which we have to grapple, is due to failure equally of *Hepatic and Renal elimination*.

When the renal and hepatic tissues have been previously healthy, the uræmia and cholæmia of cholera are attributable, first, to congestion of the kidneys and liver, and, secondly, to

lack of fluid in the system. Cholo-uræmia can be best guarded against by the use of large and repeated sinapisms over the liver and kidneys, by dry-cupping over the kidneys; the steady application of a pillow-case half-filled with hot dry bran, in which the patient lies; large hot linseed-meal or *soojee* cataplasms to follow the sinapisms over the liver and loins; and the free use of *nature's own diuretics*, water and milk. Dr. Goodeve says "water is the best diuretic." After cholera I have never dared to irritate the kidneys by more stimulating direct diuretics. These organs can, at this most critical period, only be *solicited* by the use of bland demulcent fluids, supplying the place of that which the cholera flux has almost completely drained the system of. Attempts to *compel* them to act can only tend to produce arterial congestion and uræmia. Still, even in the present day, there are some otherwise judicious practitioners who, becoming impatient at the slowness with which the congested serum-exuding, desquamating kidneys begin to act, while yet unsupplied with that water without which urine cannot be made, are unable to refrain from goading these already sufficiently over-burthened organs into premature action. One thinks that "a few doses of benzoate of ammonia" will act as a gentle diuretic,—as if the kidneys were not already sufficiently troubled in a struggle to void urea! Another uses "solutions of the chlorate of potash and the like"; and a third is only satisfied when he has added fire to fire by administering the tincture of cantharides!

In his remarks upon the treatment of the diarrhoea which follows cholera, a modern writer tells us that—"In those cases that are connected with defective secretion of urea, turpentine, either by the mouth or applied externally, is very useful." We are not surprised to find that he adds—"Cases of this nature are very obstinate, often continuing for months, and generally requiring change of air to the seaside, or a long sea-voyage to complete the cure." This recalls the case of congestion of the posterior part of the liver, which I have cited in a previous chapter, in which we are told that, *although* the patient was bled three times to deliquium, recovery was tardy!

In treating cholera I have always, on chemical grounds, avoided the use of ammonia in any form; and have, in consideration for the state of the kidneys, interdicted the use of cantharides blisters, and have even refrained from the use of turpentine stupes.

(To be continued.)

**TUBERCULOSA DOLOROSA.**—After giving an account of a case operated upon by Prof. Genzmer, Dr. Rohrschneider refers to the other cases that have been recorded of painful subcutaneous tumours. These he found to be 60 in number, 35 having occurred in females and 24 in males: (the sex in one case not stated). As to the situation of the tumours, this was on the lower extremities in 29, on the upper in 23, on the back in 2, on the chest in 2, on the head and scrotum each in 1. In only three cases were they multiple; and their course was chronic, without any essential disposition to increase (the *Dauer-geschwülste* of Virchow). Their structure exhibits no anatomical identity, and they have been met with as true and false neuroma, enchondroma, fibroma, and erectile tumour, especially angioma. The case operated upon by Genzmer related to a woman thirty years of age, who suffered from violent pain due to a tumour, the size of a hempseed, in the temporal region. After its excision this tumour was found to consist of a cavernous structure, without any trace of nervous tissue.—*Centralblatt für Chirurgie*, August 18.

**OBLIGATORY VACCINATION IN FRENCH SCHOOLS.**—The Prime Minister, M. Ferry, has just addressed the following circular to the rectors of French lyceums and colleges:—"In a recent discussion at the Hospital Medical Society, the excellent results which have attended the enforcement of obligatory vaccination at the Lycée Louis-le-Grand were brought forward and made the ground of a request to me that my administration should render this procedure general in all the establishments connected with the State. Since revaccination has become obligatory for every new pupil entering the Lycée Louis-le-Grand, no case of variola or varioloid has occurred. Persuaded that the measure demanded by the Society can only be productive of beneficial results, I have decided that revaccination shall be made obligatory for all boarding pupils at the lycées and colleges."



## RESPONSIBILITY IN LAW.

By CHARLES MERCIER, M.B.

IN the recent trial of William Gouldstone for the murder of his children, the counsel for the prosecution and the learned judge who tried the case differed materially in their statement of the law with regard to the responsibility of a criminal, and both of them differed from the interpretation given by Mr. Justice Stephen. Mr. Poland told the jury that "if the prisoner knew the nature and quality of the act he was committing, and that it was a crime, he was responsible to the law for that act." Mr. Justice Day charged them that "if they found that the prisoner knew the nature and quality of the act when he killed his children, and that he was not of unsound mind, they must find him guilty." Mr. Justice Stephen, in his "History of the Criminal Law," lays down that "no act is a crime if the person is, at the time when it is done, prevented [either by defective mental power or] by any disease affecting his mind—(a) from knowing the nature and quality of his act, or (b) from knowing that the act is wrong [or (c) from controlling his own conduct, unless the absence of the power of control has been produced by his own default]." The parts included in brackets are given as doubtful.

No one who has had any experience in insanity can, I think, doubt that Gouldstone is insane. I do not intend to argue the case—and, fortunately, it is so plain, that argument is not needed,—but, assuming that he is insane, it may be interesting to inquire which of the three statements of law given above will most completely cover the facts of the case, and which will be, from the point of view of the alienist, the most satisfactory.

If Mr. Poland's statement of the law is correct, the man was justly convicted, for it is certain that he "knew the nature and quality of the act he was committing, and that it was a crime." According to the hypothesis that the man is insane, this is, therefore, not a complete statement of the law; and, when it is examined, the expression is found to be nothing more than a new rendering of the old test of the "knowledge of right and wrong,"—a test which has long been discredited, exploded, and rejected.

According to the first two of the criteria of Mr. Justice Stephen (the only criteria that he regards as certain), the conviction was just, for these are substantially the same as those given by Mr. Poland. Even if we give the prisoner the benefit of the doubt that rests on the third criterion, it does not seem of any service to him, for it is very difficult to know what is meant by "the power of controlling his own conduct," and still more difficult to say in such a case as that of Gouldstone how far he did or did not possess this power. The expression was, it appears, intended to cover the rare cases of sudden and uncontrollable impulse, and would scarcely be allowed to apply to an act deliberately undertaken.

There remains, then, the very comprehensive statement of Mr. Justice Day; but this statement, as reported in the *Times*, admits of more than one interpretation. "If," said the learned judge, "the jury found that the prisoner knew the nature and quality of the act when he killed his children, *and that he was not of unsound mind*, they must find him guilty." The words that I have italicised may be understood in two senses. They may be taken as merely expressing over again the idea contained in the previous sentence. It may be that the learned judge intended the jury to understand that, "if they found that the prisoner knew the nature and quality of his act, which was legally equivalent to saying that he was not of unsound mind, they must find him guilty." Against this reading must be set the fact that judges are not accustomed to express themselves in this loose and tautologous manner; and it is extremely unlikely that in an important trial for murder a judge would state the law to the jury in such ambiguous terms. It seems clear that the words are to be understood in their logical and literal and unstrained meaning, as stating a second issue to the jury. To find the prisoner guilty, they must find, first, that he knew the nature and quality of the act; in addition to this they must find that he was not of unsound mind; and unless they were satisfied

on both these points they must bring in a verdict of not guilty. The two issues are by no means equivalent; they are, in fact, widely different. A sane man may commit a crime without knowing the nature and quality of his act, as has occurred in some cases of somnambulism; and the inmates of lunatic asylums are very frequently guilty of acts that in the outer world would be called criminal, knowing full well the nature and quality of those acts. If Mr. Justice Day's charge to the jury is to be understood in this sense, it is the most important departure that has been taken in the criminal jurisprudence of insanity since the memorable case of *McNaughten*; and it seems to me the most thoroughly satisfactory interpretation of the law that has yet been given. Mr. Justice Stephen's statement is a great advance upon everything that has gone before; but this last interpretation is much better, not only because it is more comprehensive, which is very important, but because it sets up no rigid test of insanity, which is more important still. To the legal mind this will appear a disadvantage, and if there were any prospect that juries would take an unconscientious or even a latitudinarian view of their duties, no doubt it would be so. But there is no such danger. Juries have never shown themselves eager to admit the plea of insanity in criminal cases. On the contrary, their reluctance to admit this plea is extreme, and even excessive. From the year 1863 to 1882 the number of prisoners acquitted on the ground of insanity was 416, while the number of those who were convicted and after conviction were certified to be insane was no fewer than 641. Part of this discrepancy is owing, no doubt, to the present state of the law; but when juries have been prejudiced against the law, they have rarely failed to bring in verdicts of acquittal even against the clearest evidence and in the teeth of the most positive ruling of the judges; and the figures given above are of themselves sufficient to show that the rigidity of the law with regard to the insanity of criminals may be considerably relaxed without any danger of exceeding the wide margin of safety that at present lies beyond it. The view which regards every man who commits a crime as *ipso facto* insane appears to me fanatical and untenable; but since the law admits that a madman should not be punished for a crime arising out of his madness, it is but logical and consistent to desire that the application of the law should be efficient, which cannot, I think, be said of it at present. In almost every case in which the plea of insanity has broken down, and yet the prisoner has been afterwards admitted to be insane—and such cases are not very uncommon,—the plea has been rejected because the prisoner failed to satisfy the test of insanity that the law or its interpreters imposed. As this has happened in cases in which the insanity of the criminal was beyond all question, and was admitted to be so by his reprieve and his committal to an asylum, the onus of the failure of justice lies, it is evident, upon the test; indeed, this has been practically admitted by the variations in the test that have from time to time been made. Every test that has yet been proposed has broken down in practice and has had to be modified. Even Mr. Justice Stephen proposes a modification for his own test, and then is doubtful about the propriety of the modification. If so learned a lawyer and so able a man as Sir James Stephen is unable to propound a test that is satisfactory, we may well believe that the task is impossible, at any rate at present; and this is the conclusion to which the facts appear to me imperatively to point. So long as the test of the knowledge of right and wrong, or that variation of it which is at present in vogue, must be satisfied by the lunatic criminal, so long cases of great injustice will from time to time occur in the future as they have occurred in the past. It must be admitted, on the medical side, that no satisfactory test of insanity has yet been discovered; and it is surely better to admit, on the legal side, that no test at all is better than one which breaks down in practice, which leads to terrible mistakes, and which even its author is obliged to modify.

If, then, every individual test is declared to be insufficient and to leave a certain number of cases to which it does not apply, lawyers have a right to ask what alternative is proposed. The alternative is that propounded by Mr. Justice Day, and the course that he took seems to me not only more in accordance with our knowledge of insanity, but even better adapted to the forms of legal procedure than the method which I hope it will displace. The verdict of the jury in



cases of lunatic criminals is not "Guilty, but he did not know right from wrong"; it is not "Guilty, but he did not know the nature and quality of his act"; it is not "Guilty, but he did not know that he was committing a crime,"—it is "Guilty, but insane." Why should not, then, the two issues be left to the jury—Did this man do the act? and, Was he sane at the time he did it? They would not then, have to find whether the man was capable of forming this or that particular judgment—a finding that can never be more than a guess; for which safe guidance can rarely be obtained, the facts bearing on it being necessarily few and equivocal; a finding which, when found, is not a trustworthy criterion of his sanity. They would have to conclude, not merely from the opinion of experts, but from the entire mass of evidence before them, whether the man was sane or insane. Should it be said that such a finding would relax too much the rigour of the law, and that all insane people are not irresponsible upon all points, it would be easy to add a limitation. Let it be left to the jury to say whether the man's mind, as a whole, was so disordered that the crime he is charged with can fairly be considered the result of his insanity. Such an issue would surely satisfy the requirement of the law, that no guilty person shall escape conviction; and, on the other hand, it would to a large extent provide against the occurrence, which is a reproach to our legal system, of a conviction followed by the admission that the criminal was insane when tried. A minor advantage would be that it would relieve expert witnesses from the heavy responsibility of saying that a prisoner can in all probability distinguish right from wrong, and in so saying being understood to make the admission that he is sane, when their opinion may be most positive that he is mad.

**RUMINATION BY LUNATICS.**—In a communication to the Société des Sciences Médicales de Lille, Dr. Bouchoud observed that rumination in man has been hitherto regarded as a pathological rarity; but, in fact, it is not uncommon, at least in lunatic asylums. Thus, at the asylum at Lommelet, fourteen patients who ruminated were met with—viz., eleven idiots among 100, and three among 570 lunatics. Several of these individuals ruminated before presenting any signs of insanity, so that this feature may possess some prognostical importance.—*Revue de Thérapeutique*, September 1.

**THE NEW HYPNOTIC, PARALDEHYDE.**—This is a polymeric modification of aldehyde. What is aldehyde? This is, in brief, alcohol deprived of its hydrogen, and, although a generic term applied to a group, means in this connexion acetic aldehyde. Paraldehyde, being merely the same substance in respect to its number of atoms, but which are arranged differently, may be suspected to have analogous properties. For medicinal administration the dose ranges from half a drachm to two drachms and a half, and it is said that the best results are attained from the maximum dose. In the trials that have been made, paraldehyde has proved to be an admirable hypnotic, possessing most of the qualities and none of the dangers of chloral. It acts first on the cerebral hemispheres, and causes torpor without the preliminary excitement so common in the action of the sleep-producing class. After the hemispheres the action extends to the medulla oblongata, and then to the cord. A lethal dose suspends the functions of the medulla and the respiratory centre, and the action of the heart ceases after the respiration. In respect to the effect on the heart, paraldehyde is far safer than chloral. Indeed, it appears to be free from the danger which renders the administration of chloral in large doses so doubtful an expedient. Its effect as a hypnotic is not so persistent as that of chloral, but it may be maintained by the repetition of sufficient doses. No ill-effects of any kind—no after-nausea, or depression, or headache—have been observed to follow its very free administration. It may be prescribed as a hypnotic in fevers, rheumatism, gout, prurigo, etc. It is, however, in mental and nervous disorders that it will probably be most used. By the Italians it has been prescribed with very marked success in acute mania, in the wakefulness of dementia paralytica, in hysterical paroxysms, and in insomnia arising under ordinary conditions. They have found it especially useful in the form of wakefulness caused by the fear of inability to sleep. Surely, if these statements be confirmed, an important remedy has been discovered in paraldehyde.—*Phil. Med. News*, July 28.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### EAST LONDON HOSPITAL FOR CHILDREN.

#### ACCIDENTAL INGESTION OF BELLADONNA— SYMPTOMS—RECOVERY.

(Under the care of Dr. EUSTACE SMITH.)

[From notes by Mr. F. S. STONE, Resident Clinical Assistant.]

GRACE B., aged three years, was admitted into the hospital on July 13, 1883. She was said to have swallowed a quantity of a mixture of extract of belladonna and of glycerine (which her mother was using to arrest lactation), in the proportion of one part of the extract to four of glycerine. Her fingers and face and clothes were smeared with it when she was admitted, about half-an-hour later. The child's friends stated that she had vomited twice since, bringing up each time about two ounces of dark brown (grumous) material.

On admission the following note was made:—There is (at 12.40 p.m.), a bright red flush on the face, upper half of trunk (specially the right lateral region), and legs, which disappears on pressure. It had appeared first about a quarter of an hour before she was brought. The child's utterance is distinctly impaired. She complains of thirst, and says she cannot see her mother plainly. The eyes are prominent and sparkling, and the pupils widely dilated; they do not act to light either directly or indirectly. The skin is dry and hot. Pulse 120, regular, but feeble. Respirations 40, shallow and painless.

*Treatment.*—An emetic, consisting of eight grains of sulphate of copper with a tablespoonful of mustard-flour, was given.

The child vomited about five minutes afterwards. The ejected material smelt strongly of belladonna; it contained also undigested food and gastric mucus.

12.50 p.m.—The stomach was then well washed out with warm water by the aid of a stomach-pump until the water returned quite clear. Subsequently a teaspoonful of animal charcoal was given, suspended in mucilage and water.

1 p.m.—She is quite delirious; "fancies she is playing at school"; occasionally tosses her arms about. If anything is placed in either hand it is immediately dropped. There is general muscular flaccidity. The breathing is stertorous; *alae nasi* working. Respirations 34, shallow and painless; pulse 128, weak and irregular.

1.10 p.m.—Passed two ounces of pale brown urine in the bed. On attempting to give her a drachm of brandy in a cup of hot coffee it was found she had considerable difficulty in the pharyngeal part of deglutition, some of the liquid passing out of the nostrils; she was therefore fed by the oesophageal tube. The coffee and brandy was retained.

2 p.m.—The child is quite unconscious; her pupils are widely dilated, and the corneæ insensitive. The legs feel cold. Temperature in axilla 98.2° Fahr.

3 p.m.—Consciousness appears to be returning. She was fed with three ounces of beef-tea through the oesophageal tube; this was retained. There is slight internal squint on the left side.

4 p.m.—Passed a large motion in the bed; it was normal, containing neither blood nor mucus.

During the evening the power of swallowing gradually returned, so that she took a little milk from time to time. During the earlier part of the night there was muttering delirium. She was very thirsty all through the night.

July 14.—At 2 a.m. she passed four ounces of dark-brown urine, which, on examination, was found to be acid and free from albumen and casts. By 6 a.m. the scarlet rash had quite disappeared.

9 a.m.: Has almost completely recovered the power of swallowing. She has taken some beef-tea, and not been sick after it. The pupils do not act to light freely. She seems quite sensible, and talks rationally. A dose of castor-oil was ordered. She complained throughout the day of thirst, and preferred water to milk.

15th.—She appears quite recovered, and is playing with her toys.

16th.—Was discharged.

*Remarks.*—The case can scarcely be called one of bella-



of understanding how it was possible for the man to suffer amputation of both arms above the middle without at the same time sustaining any injury to the head; and, thirdly, the fact that, although the stumps remained typically aseptic, he suffered from a well-marked attack of what is known as surgical scarlet fever. After the stumps were healed, he was provided with two artificial arms, with both of which, when last seen, he could execute a considerable variety of movements.

THERE is unquestionably a strong and growing feeling in the medical profession that there may have been a serious miscarriage of justice in the case of William Gouldstone, who still lies under sentence of death in Her Majesty's prison at Chelmsford for the murder of his five children, and that we are yet in danger of witnessing again the painful spectacle of the execution of a lunatic, and thus adding another stain of blood-guiltiness to the already deeply incarnadine criminal annals of the country. A great authority on criminal jurisprudence—perhaps the greatest now living—has said, when treating of trials for murder in which the defence of insanity is set up, that a jury “are reluctant to convict if they look upon the act itself as upon the whole a mad one, and to acquit if they think it was an ordinary crime.” But this rule does not seem to have held good in the trial at the Central Criminal Court on the 14th inst., for there the jury, if they were men of ordinary discernment, must have perceived that the act of the prisoner before them was a mad one in every aspect; and yet they manifested no reluctance to send him to the scaffold, for they deliberated on their verdict only for fifteen minutes. Is it an ordinary occurrence for a doting father to kill his five children? Is it consonant with our knowledge of human nature that a sober, industrious man should perpetrate a deed of this kind, in no heat of passion, but with calm deliberation, with no hope of gain, but with the certainty that he was forfeiting his own life? Surely so unusual and gratuitous a crime bears on



its face the strange expression of insanity; and surely the first impression of its character, thus obtained, is confirmed when it is discovered that the criminal is the son of a mad mother, and that he has been marked by his fellow-workmen, long before he imbrued his hands in blood, as a crazy mortal outside the pale of rational calculation. That the jury who tried William Gouldstone did not realise all this must be attributed to the mystification to which they were subjected in court—a mystification no doubt practised with the best intention, and, as it is thought, in the interests of justice, but which is sadly inimical to a clear scientific view of things. The evidence of insanity was sufficient and convincing, but it was of a cumulative character, and so, of course, the separate items of which it was composed—which, fagotted together, were irrefragable—were taken singly and easily snapped asunder. The fact that a second cousin of the prisoner's father was insane was received with ridicule, and yet this fact was most significant as showing a strain of madness on the father's side, which, uniting with that derived from the mother, would intensify the tendency to the disease an hundredfold. Then, of course, the medical witnesses were not permitted to say outright what they thought of the prisoner's mental condition. They might beat about the bush as much as they liked, but they could not be allowed to say plainly that they thought the prisoner an irresponsible lunatic: that was the question for the jury. They might state any number of premises, but were forbidden to draw any conclusion; and the consequence was, as we now learn from a letter to a daily paper by "One of the Jury," that the conclusion drawn from their premises by the jury was just that which they should have avoided. Because Dr. Savage said, under cross-examination, that he could not, from anything observed during his one interview with William Gouldstone, have certified him as a lunatic, and that he believed he knew he was committing murder when he killed his children, the jury handed the man over to the hangman. But it appears from a humane letter which Dr. Savage has addressed to the *Times* that he regards Gouldstone's as "a typical case of insanity," and it is now clear either that Dr. Savage had not an opportunity of laying before the court that whole truth on the matter in question which he had sworn to deliver to them, or that he somehow failed to do so. When he said that he could not from his personal observations have certified Gouldstone insane, he should have added that neither could he have certified him sane; and when he said that Gouldstone knew he was committing murder when he killed his children, he should have amplified the statement to the effect that he merely knew he was committing what is technically called murder, but what, he was persuaded, owing to the disorder of his mind, was a humane and necessary sacrifice, and what he was impotent to refrain from committing owing to enfeeblement of his will. Dr. Savage seems to have been somewhat awed by the solemnity of the grove of horsehair wigs in the midst of which he found himself, and to have spoken in rather uncertain terms; and even the supplementary evidence that he has offered in the columns of the *Times* is not altogether satisfactory. He says of Gouldstone, "He has done his work, which was purely mechanical"; and that phrase is apt to mislead, by revealing, as it were, an attempt to carry the irresponsibility of the convict too far. Proceedings such as his cannot be called mechanical. He drowned his three eldest children, after considerable resistance, in a cistern containing only fourteen inches of water, having previously tied a string round the neck of one of them; and he beat in the heads of the two infants with a hammer, having watched for his opportunity in the absence of the nurse; and, after this group of murders, he exhibited in several expressions an appreciation of what he

had done, and a foresight of the consequences to himself. Now, no automaton has yet been invented to go through such a performance as that. Not even instinct is equal to it, for it involved reasonable preparation, the adaptation of means to ends, the modification of processes according to varying conditions, and a just anticipation of remote effects. To speak of such processes as mechanical, and thus to represent Gouldstone as a sort of human alarm-clock, wound up to run down at wholesale murder at a certain time, is very apt to excite a suspicion that there cannot be much of real weight to be adduced in maintenance of a case that is supported by such exaggeration. William Gouldstone was no automaton, but a madman, when he slaughtered his children—deprived, no doubt, to a great extent of his power of self-control, and swayed unduly by the suggestions of his disordered fancy,—but still retaining many of the essential attributes of manhood. He was melancholic, not mechanical; irresponsible, but not dead altogether to human motives. Dr. Savage seems subsequently to awaken to all this, for he remarks that Gouldstone's act depended on "an insane feeling of misery"; and it can be scarcely necessary to point out that feeling is not one of the mechanical forces.

And there is another feature in Dr. Savage's letter to the *Times* which requires explanation. He ends by saying, "I am not one who is in the habit of defending criminals on the plea of insanity." Now, we venture to assert that there are no medical men who are in the habit of defending criminals on the ground of insanity, and that the distinction which Dr. Savage claims for himself is illusory. We suppose that what Dr. Savage meant was that he is not one of those who take an extreme view as to what constitutes insanity sufficient to exempt from punishment—a statement which those who remember his evidence in the Taylor case will readily believe,—but it is unfortunate that he did not make his meaning less ambiguous, and emphasise the truth that a medical man is not concerned either to defend or prosecute, but to set forth scientific facts.

The check imposed on medical men in giving their evidence in cases in which insanity is the question at issue, to which we have referred, and which prevents them from stating explicitly the judgment they have formed, is, we believe, a fertile source of error and confusion. When they are asked by counsel whether they consider the prisoner at the bar insane, the judge invariably intervenes with the remark that that is the question for the jury, and not for the witness. Now, we venture to suggest that that is not the question for the jury, but for medical experts. The jury are practically called upon to say whether a man is responsible or irresponsible, not whether he is sane or insane. Insanity is a disease, and an occult and obscure disease, and the jury are quite incompetent to decide as to its presence or absence. That is a question for those who have made a special study of the subject. It would take a jury years of laborious study to determine for themselves whether a specimen of water that was the subject of litigation contained or did not contain albumenoid ammonia. On a point like that they are bound to take the opinion of chemists; and a chemist, in bearing testimony regarding it, would never be prevented from definitely stating the fact that he had found albumenoid ammonia in the water. And so, with reference to insanity, a jury should be bound to take the opinion of the medical witnesses on a point which they have not the skill or knowledge to decide for themselves; and these witnesses should be entitled to state whether or not they have found insanity in the mind which they have analysed. Of course, where a difference of opinion exists between different medical men the jury must determine



which way the balance of probability inclines; but, where no difference of opinion arises, they should receive as conclusive the medical evidence as to the existence of insanity, and then, with the assistance of the judge, consider whether the degree of insanity is such as wholly or partially to exempt from criminal responsibility. Now, it is to be observed that in the case of Gouldstone there was no difference of opinion amongst the medical men examined. Dr. Savage thought him insane, Dr. Sunderland gave corroborative testimony, and it now comes out that the medical officer of the House of Detention, who had him under observation immediately after the crime—but who, strange to say, was not examined at the trial,—also regarded him as a lunatic. Under these circumstances it was the duty of the jury either to accept the medical testimony submitted to them, or to insist upon having more medical testimony; and in adopting the latter course they would have been setting an admirable precedent, and calling attention to a weak point in our judicial system, which allows a prisoner, whose life is at stake and whose insanity is suspected, to be brought to trial without any steps having been taken to test and ascertain the state of his mind. The jury did not, however, adopt this course, but went on in the old hum-drum way, and now the necessity arises to obtain additional evidence in an informal manner—evidence the mere procurement of which reflects, as it were, some discredit on the court.

Since this article was in type, the Home Secretary has, we are glad to add, signified the Queen's command that the sentence of death passed on William Gouldstone be respited until Monday, October 8, in order that inquiry may be made as to the prisoner's sanity. The man is not yet out of danger; but we cannot ourselves doubt that the judgment of the experts will be to find that Gouldstone is insane, or at least was so when he committed the crimes for which he was tried.

### THE ENDOWMENT OF RESEARCH.

AMONG the various addresses delivered by the Presidents of Sections at the recent meeting of the British Association, the address given by Professor Ray Lankester in the Section of Biology stands prominently out as dealing with a subject of general interest and wide importance, and as giving information that can be fully understood by, and deserves thoughtful consideration from, all educated persons. Professor Lankester took for his theme the endowment of research, especially in biology, and, pointing out that it had in the past produced discoveries of the highest service to humanity, urged the establishment in England of such State-endowed institutions for the prosecution of research as those which have been so fruitful in Germany. The Professor pointed, among other illustrations of his argument, to the immense proportions and importance of what we may call bacterial pathology, which has all grown out of the assiduous studies of biologists provided with laboratories and maintenance by continental States. It is true that our countryman Lister gave immense impetus and importance to the labours and discoveries of Ehrenberg, Theodore Schwann, and Pasteur, by his antiseptic method of the treatment of injuries and wounds; but those discoveries, and the studies of Koch and others in the same direction, of the causation and prevention of diseases, have been made in continental laboratories. We do not propose, however, to enlarge upon this part of Professor Lankester's address. There was nothing in it that is not well known to all our readers; and our object here is to draw attention to the information given in the address in question to the wretchedly poor encouragement given to research in England as compared to that afforded by the State in continental

countries, and especially in Germany. The Professor laid it down as a general proposition that scientific discovery had only been made by one of two classes of men, viz.: (1) those whose time could be devoted to it in virtue of their possessing inherited fortunes; and (2) those whose time could be devoted to it in virtue of their possessing a stipend or endowment especially assigned to them for that purpose: and he described very fully the magnificent provision made in Germany for the prosecution of scientific discovery as compared with that which exists in our own country. He declared that whether you ask the zoologist, the botanist, the physiologist, or the anthropologist, you get the same answer: it is to Germany that he looks for new information; it is in German workshops that discoveries, each small in itself, but gradually leading up to great conclusions, are daily being made. English students flock to Germany to learn the methods of scientific research; and to such a state of weakness is English science reduced, for want of proper nurture and support, that even on some of the rare occasions when a fully capable investigation of biological problems has been required for the public service, it has been necessary to obtain the assistance of a foreigner trained in the laboratories of Germany. In that empire there are twenty-one universities; and each university has, in addition to its other arrangements for the study and teaching of all branches of learning and science, five institutes devoted to the prosecution of researches in biological science, namely, the physiological, zoological, anatomical, pathological, and the botanical institutes or establishments. In a university of average size, each of these institutes consists of a spacious building, containing many rooms fitted as workshops, provided with instruments, a museum, and, in the case of botany, an experimental garden. And all this is provided and maintained by the State. It is the business of the professor in each department, in conjunction with his assistants, and the advanced students, who are admitted to work in the laboratories free of charge, to carry on investigations, to create new knowledge. For this he receives his stipend, and on his success in this field of labour depends his promotion from the university to a more important or better paid post in another. And, in addition to, and irrespective of this part of his duties, each professor is charged with the delivery of courses of lectures and of elementary instruction to the general students of the university; and for this he is allowed to charge to each student a certain fee, which belongs to himself. "There are in Germany more than one hundred such institutes, carried on at an annual cost to the State of about £80,000, equal to about £160,000 in England, providing posts of graduated value for 300 investigators—some of small value, sufficient to carry the young student through the earlier portion of his career, while he is being trained and acting as the assistant of more experienced men; and others forming the sufficient but not too valuable prizes which are the rewards of continuous and successful labour." This, even, is not a complete list of all the posts of value and importance open to scientific investigators in Germany, nor does it take into account the large number of educational establishments—as polytechnic schools, technical colleges, etc.—which offer posts of emolument to not a few biological students. We cannot afford space to point out with anything like completeness how utterly miserable, compared with the state of things in Germany, is the amount of endowment of research in England; and, indeed, there is no need to dwell on it—it is a matter of common knowledge, though Professor Lankester's detailed description of our shortcomings may be studied with profit. He does more, however, than criticise and expose our faults—he plans out the remedy; and here he is as clear, definite, and outspoken as in the



rest of his address. There is no escape, he says, from the necessity of providing stipends and laboratories for the purpose of creating new knowledge; and he will not be content with anything short of placing England on a level, or about on a level, with Germany. For this purpose there would be required, in England alone, forty new biological institutes, distributed among the five branches of physiology, zoology, anatomy, pathology, and botany. He will admit that, taking one place with another, fifteen—more or less imperfect—such institutes may be reckoned as already existing, and the forty required are to be in addition to these. He is not extravagant, certainly, in his estimate of the cost: he estimates the cost of the required buildings at only £160,000—an average of £4000 for each institute; and the average cost of stipends for the director, assistants, and maintenance he calculates at £1500 for each, or £60,000 for the forty—equal to a capital sum of £2,000,000. The institutes are to be distributed in groups of five throughout the country—in London, Bristol, Birmingham, Nottingham, Leeds, Newcastle, Cardiff, and Plymouth; one, in fact, “in each of the great towns of the kingdom where there is at present, or where there might be with advantage, a centre of professional education and higher study.” The cost of such a scheme would be considerably greater, we suspect; but suppose it required a capital of £3,000,000—that, really, as a matter of expense only, would be very easily borne by such a country as England. Professor Lankester thinks that were the facts known to public men, in reference to the expenditure incurred by foreign States in support of scientific inquiry, they would be willing to do something in this country of a sufficient and statesmanlike character. We suspect it is necessary for this purpose to educate the public, rather than public men, up to a proper appreciation of the value and necessity of scientific inquiry. Were our Ministers and our legislators once convinced that the endowment of research would be popular, there would be no difficulty in carrying out such a scheme as that which Professor Lankester has propounded; and we will hope that his address to the public, through the British Association, may do something in promoting that desirable public education.

### THE CHOLERA IN EGYPT.

SURGEON-GENERAL HUNTER's further Report on the cholera epidemic in Egypt calls for a rather fuller notice than our space last week allowed. This officer has, with the help of a special railway service, visited a number of towns and villages. In every one of them he found the grossest violation of all sanitary laws. The rivers and canals, he says, “are ordinarily made use of as the easiest and readiest means of disposing of all dead animals, excreta, and refuse and filth of every kind and description.” “If a small factory be erected on the banks of the river, the privies, as a matter of course, are built over the stream.” From the Damietta branch of the Nile, 568 carcasses of cattle which had died of typhus were removed, beside numerous portions of others in a more or less advanced state of decomposition. French observers, subsequently to be referred to, speak of “thousands” of dead bodies in the river. The stench arising from these bodies in the process of burial was so intense as not infrequently to cause attacks of fainting among the burying parties. The cemeteries, Dr. Hunter says, “cannot but be prolific sources of disease.” The dead are put into hollow structures, about six feet by four, made of sun-dried bricks and mud, the floor being on the ground level. Into these the dead bodies are thrust, one after another, as occasion arises, until the place is full. “In the daytime, with a hot sun pouring on them, they can be little better than ovens,

and the stench given off may be imagined.” At Benha a cemetery of this kind is close to the town, and a couple of these so-called graves are within fifty yards of the hospital. “The hospitals,” says the Report, are “in a more or less tumble-down, dirty condition, impregnated with foul odours, and containing beds filthy in the extreme; in fact, noisome places, utterly unfit for the reception of human beings.” From these strictures Tanta, which is under the administration of Dr. Sidki Bey, is to be excepted. What Dr. Hunter by courtesy calls “the medical administration” “is simply deplorable.” “It is quite rare and exceptional for a person suffering from disease to be seen during life by a medical man, unless it be a few of the better classes.” The village barber is the registrar, and he never, except by chance, sees a sick person during life. After the patient's death, he enters what from the statements of the friends he thinks was the cause of death, and grants a permit for burial. “It is on such a system,” adds Dr. Hunter, “that the vast majority of the mortuary returns of the country is based!” From the details which we have quoted, two general inferences will at once be apparent—first, that if it be assumed that, under suitable conditions, there may take place new developments of the germs of those epidemic maladies of which the spread is undoubtedly favoured by dirt and overcrowding, then those conditions exist in perfection in Egypt; second, that statements as to the presence or absence of any particular disease in Egypt based on the ordinary mortuary returns of the country are absolutely worthless. Seeing how untrustworthy these mortuary returns were, Dr. Hunter made cautious inquiries from medical men and others long resident in Egypt, and he found that for a long time cases of “cholérine,” as they were euphemistically termed, had been seen occasionally. He satisfied himself that these cases presented characters identical with those of true cholera. He found also that in the early part of this year an epidemic of typhus had existed. With these facts before him, Dr. Hunter thinks it “hardly worth while to discuss the oft repeated and as often refuted story of the importation of the disease from India into Egypt.” He appends, however, a very able report by Ahmed Chaffey Bey and Salvatore Ferrari, two medical gentlemen, who, “firmly convinced of the importation of the disease into Egypt from India, instituted an inquiry into the matter, with the full anticipation of obtaining a confirmation of their opinions. Instead of this, they are forced to the conclusion that the disease had not been so imported, and that there existed in the deplorable insanitary condition of Damietta itself sufficient cause, as they believe, for the origin and development of the disease.” To their report is added an appendix on the chemical and microscopical examination of the water at Damietta, which shows that the water drunk by the inhabitants has been in a state of putrefaction.

After discussing these facts, Dr. Hunter briefly mentions observations of another kind, which are of much interest. It will be remembered that in the cholera epidemic which visited this country in the autumn of 1866, Mr. Glaisher drew attention to an atmospheric phenomenon which he called the “cholera mist.” Mr. Borg, H.M. Vice-Consul in Cairo, tells Dr. Hunter that “when cholera was at its height in 1865 in the capital, the sky was lead-coloured, the atmosphere oppressive, so as to render breathing rather difficult at times, and the town of Cairo, as seen from the Mokattan Hills, seemed to be enveloped in a spherical cloud of thick mist during three consecutive days. He also observed that the sparrows deserted the town, and did not return until the epidemic was on the decline.” Dr. McDowell, A.M.D., Sanitary Officer of the Cairo District, reports that “when the (present) epidemic was at its height on July 23, a very peculiar condition of the atmosphere was



observed—a yellowness of the air, somewhat of the nature of a fog; and it was quite calm. The sparrows, it was noticed, had deserted the place, and did not return until July 26.” Dr. Hunter adds, “It is curious to note that the Arabic phrase for cholera is ‘the yellow air,’ and that the fact of birds deserting a place at such periods has also been remarked by the natives.” Detailed meteorological observations by Dr. Kirker, of H.M.S. *Iris*, and by Dr. McDowell, are appended to the Report. Dr. Hunter abstains from drawing inferences from these facts, and contents himself with merely recording them.

To summarise the purport of Dr. Hunter’s Report: he is satisfied with the evidence (1) of typhus before the outbreak of cholera; (2) of cholera prior to the outbreak at Damietta; and he entertains grave suspicions of cholera having been epidemic in Egypt since the epidemic of 1865.

### A PERPETUAL DANGER.

THERE are some forms of danger that seem to have a dire and unaccountable fascination for great numbers of people. Most of us perhaps have felt more or less strongly the tremulous pleasure of walking as near as possible to the edge of a precipice, and have withstood the feeling, half dread and half desire, that prompts us to cast ourselves down. The daily papers are continually reporting instances of persons, usually considered sane, who point firearms at their friends, “in fun”; who say, playfully, “I’ll shoot you”; who pull the trigger, and, by one momentary act of incomprehensible folly, blast their own lives and destroy that of, it may be, their dearest friend. It would be going too far, perhaps, to ascribe to some such self-destructive impulse the conduct of those medical men who, in spite of the warnings that appear from time to time in the papers, in spite of the most obvious pleadings of common sense, in spite of the imperative demands of the instinct of self-preservation, still venture to attend women professionally in the absence of any third person; but it seems something like it. The danger of such a course is sufficiently obvious without illustration, but if illustration were needed, it could not be supplied more forcibly or with more brutal plainness than by the case of *Davies v. Davies and Richards*, which was reported in the *Times* not long ago. The petitioner, John Davies, sought the dissolution of his marriage on the ground of the adultery of the respondent with her medical attendant. The co-respondent was honourably acquitted of the charge of adultery, but the case is memorable, not only because such a charge was made, not only because the charge grew out of the professional attendance of the co-respondent, not only because it was supported by the direct affirmative evidence of the respondent; but, also, because of the character of the correspondence that had passed between the wife, and the husband who prayed for a divorce. In one of the letters which she wrote to her husband, admitting and asserting and reiterating her guilt, there occurred this remarkable passage: “I saw in the paper about another doctor, a job like mine, and the doctor pison hisself, and there is another case to come off again—Dr. —; an old paper as I got now where it cost Dr. — £500.” If there are any of our readers who have not already taken to heart the lesson taught by such cases as this, and that of the unfortunate Dr. Edwardes, we beg them to give this extract their most serious consideration. Any medical man who professionally attends a woman, and is so incautious as to neglect to secure, if feasible, the presence of some third person during his visit, renders it possible for a depraved and abandoned woman to blast his character and ruin his life. And it appears from the cases that occasionally come to light that such women are not far to seek.

They are evidently fully awake to the possibility of extorting money by this infamous means, and are eager to avail themselves of any opportunity that may be thrown in their way, or that they can contrive to secure. Against such designs there is but one safeguard, and that is at once simple and certain. It lies in the strict observance of two rules—first, never, under any circumstances, to visit alone a woman whose character is in the least degree doubtful; and secondly, to doubt almost everyone. Of course, emergencies will occasionally arise which necessitate an infraction of the first rule, but such occasions need be but rare, and it will nearly always be possible to keep some one (if only one’s own coachman) within hearing. The people by whom such charges are made commonly live in associated cottages or tenement-houses, and the services of a neighbour can almost always be secured. If this cannot be obtained, and if circumstances necessitate a *tête-à-tête*, then the interview should be extremely brief. There is nothing absolutely unpractical in these suggestions. A short observance of them makes their practice so habitual that it is deprived of all effort, and does not add appreciably to the already onerous duties of the doctor. On the other hand, how utterly disastrous the neglect of such precautions may be was exemplified in the deplorable case of Dr. Edwardes. And, as was also shown by that case, it is by no means necessary for a charge of this nature to be proved or even to be remotely probable. The mere fact that it is made, apart from every consideration of its truth or probability, or even possibility, is capable of doing a man infinite damage; and it behoves every medical man, and more especially that large majority of medical men whose duties compel them to visit much amongst the poor, to give the second of our rules the most liberal interpretation, and to observe the first with the most scrupulous exactness.

### THE WEEK.

#### TOPICS OF THE DAY.

THE condition of the Paddington Canal Basin having been prominently brought to notice through complaints in several quarters, the Paddington Vestry have at length determined to take some action in the matter. According to the report of the Sanitary and Public Health Committee, the complaints had been referred to Dr. J. Stevenson, the Medical Officer of Health for the district, to be dealt with in whatever manner he might see fit; and he had also received instructions to take proceedings against all persons detaining manure on the wharves on the banks of the canal immediately after the expiration of time allowed by the statute, viz., twelve hours. This insanitary condition of the Paddington Canal is certainly not of recent growth; so far back as 1874 the late Dr. Hardwicke, then Medical Officer of Health for Paddington, reported that during the whole period of his official career, as well as during that of his predecessor, every attempt to improve the condition of the canal basin had failed; that the Grand Junction Company, whilst expressing itself as willing to take any steps that might be suggested, contented itself with occasionally changing the water and partially removing the mud, but had never adopted any effectual method of regulating the noxious trades carried on upon its banks. Dr. Stevenson also confirmed this view on taking up his duties in the year 1875, and pointed out what steps might be taken with advantage to mitigate the evils complained of, but nothing of importance seems really to have been done. It is to be hoped, however, that with the impetus that has of late been given to sanitary details by the possibility of a cholera invasion, and the remonstrances of the authorities of St. Mary’s Hospital, the Vestry will at length be forced into



securing for the inhabitants of that particular locality a more healthy condition of affairs. It may be pointed out that, in consequence of representations recently made to the Regent's Canal Company by Dr. Tripe, the Medical Officer of Health for Hackney, as to the insanitary condition of that portion of the canal which is in the jurisdiction of the Hackney district, the necessary cleansing was at once carried out; and it is presumed that what can be done by one canal company can be done by all of them.

It is stated that a series of investigations into the origin of yellow fever has just been made by Dr. Domingas Frieze, a Brazilian physician. Dr. Frieze claims to have discovered that the blood of yellow-fever patients contains a parasite which appears as a minute point, and in one form or another continues its existence after the death of the patient. As he considers this fact to be satisfactorily established, he recommends that the bodies of all those who succumb to the disease should be burnt. In further experimenting it was shown that the injection of a little of the tainted blood into the veins of a rabbit caused death in fifteen minutes. This, Dr. Frieze admits, might only seem like ordinary blood-poisoning, were it not for the fact that the blood of the dead rabbit was found to be filled with the peculiar organisms referred to. Moreover, a guinea-pig kept closely upon earth taken from a yellow-fever cemetery died in five days, and the same peculiarity also appeared in its blood; from which the experimenter argues that all such burying-places are constantly liable to distribute the disease.

The monthly return of the Registrar-General for Scotland for August last shows that during that period there were registered in the eight principal towns of North Britain the births of 3544 children, and the deaths of 2204 persons. Allowing for increase of population, the latter number is 51 below the average for the month during the preceding ten years. A comparison of the deaths registered in the eight towns shows that during the month under notice the mortality was at the annual rate of 15 deaths per 1000 persons in Perth, 16 in Aberdeen, Leith, and Dundee, 17 in Edinburgh, 25 in Glasgow, 26 in Greenock, and 27 in Paisley. The miasmatic order of the zymotic class of diseases proved fatal to 410 persons, and constituted 18.6 per cent. of the mortality. This rate was, however, exceeded both in Glasgow and Greenock, in both which places diarrhoea was fatally prevalent. Diarrhoea was, in fact, the most fatal epidemic of the month, having caused 141 deaths, or 6.4 per cent. of the whole. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, and croup) amounted to 290, or 13.1 per cent.; those from consumption alone numbered 261, or 11.8 per cent. Three females were aged ninety years and upwards, the oldest of whom was a nurse ninety-seven years of age.

On Saturday last a meeting of the Governors of the Norfolk and Norwich Hospital was held in the board-room of that institution, for the purpose of receiving a highly satisfactory report from the committee appointed to arrange a bazaar recently held in connexion with the opening of the new building by the Duke and Duchess of Connaught. The report stated that, after providing for all expenses, the bazaar had resulted in an addition to the building fund of £5779, which, it was hoped, would be sufficient to cover the entire cost of fitting and furnishing the Hospital, the balance, if any, to be available for defraying any small expenses still left outstanding on the fabric itself. Before the close of the proceedings a letter was read from the Duke of Connaught, expressing the great pleasure which the success of the bazaar had afforded him as well as the Duchess of Connaught.

The returns of the late Hospital Saturday collection, made up to Saturday last, the 22nd inst., show that the amount paid into Messrs. Hoare and Co.'s bank is at least £1100 in excess of what had been collected and paid in, up to the corresponding date of last year. It is further stated that the workshop collection shows not only a large advance in the sums contributed, but also—what is more important—a considerable increase in the number of firms subscribing: many extensive business establishments, which never previously contributed to the fund, have this year joined the movement with marked advantage to its prosperity. And it is undoubtedly in this direction that the promoters should push their efforts, if they honestly desire that the Saturday collection for the London hospitals should be prominently identified with the working classes of the metropolis.

A singular example of the difficulties which surround the wisest legislation, where the interpretation is left to the ignorant, was afforded in the evidence adduced at an inquest recently held on a bricklayer at Tuxford. The man is reported to have "found himself somewhat unwell," and to have stated his intention of taking "a sup of laudanum." Having none in the house, he sent over to a neighbour to borrow a "teacup full." The messenger returned with about three teaspoonfuls, and the invalid's wife, finding the quantity so small, administered only a third of this, telling her husband "not to take the remainder just then." It is needless to remark that the man died; and, when being examined before the coroner, the wife not only admitted having administered the dose, but declared that she would not have believed that her husband could have taken any harm if she had given him the whole of the quantity borrowed. The facilities for purchasing poisons in the neighbourhood of Tuxford must be so great, and the custom of keeping laudanum in the labourers' cottages so common, that it would be as well if the local authorities were to institute an inquiry into the matter.

A small cottage hospital has recently been opened in the North of London, where accommodation for the sick of the district is much needed. The new building, which is intended for the reception of about thirty patients, has been built and furnished at the sole cost of a lady in the locality, in memory of her son, who was accidentally killed, and it has been conveyed by her to the trustees of the Conference Hall, Mildmay Park, adjoining which building the new hospital is situated. The internal arrangements are very complete, and great pains have been taken to make the decorations of the wards bright and attractive. Considerable progress has already been made in raising an endowment fund. Four small rooms in the building have been set apart as private wards for the use of those who are able to contribute towards the expenses of the hospital.

The recent novelty of introducing fish as an article of diet in our workhouses has called forth several comments from the London press. The *Daily News*, in remarking upon various stupid objections urged by the officials of a number of workhouses to this innovation, insists that soft food like fish, savoury and well cooked, is the diet that will keep the old and infirm in the best possible health, in preference to heavy messes of butcher's meat. It further observes that, "to give these inactive old folks butcher's meat every day is to load their system with waste products—with material which is virtually poisonous." It seems a sad pity that all this wisdom and knowledge has been hitherto withheld from vestrymen and boards of guardians. Why could not the *Daily News* have taken up its parable sooner? Our contemporary goes on to say, "The addition of fish to a pauper's diet leads not only to a saving of workhouse expenses, but to the increased bodily comfort of the pauper



himself. It does not, we admit, traverse the objection of 'the master,' which the Kensington Guardians regarded as insuperable, namely, that in their workhouse the new diet 'would be neither cleanly or economical, besides being a trouble to the cook.' We cannot, of course, get rid of that objection, unless we get rid of both the master and the cook, and, peradventure, of the guardians also."

#### BIOLOGICAL NOTES AT THE BRITISH ASSOCIATION AT SOUTHPORT.

In the Biology Section some interesting papers have been read. Dr. Carpenter, F.R.S., in a contribution, "The Germ Theory of Disease from a Natural History Point of View," attempted to show that disease-germs belonging to the very lowest types of life are capable of a very considerable amount of transmutation, and, instead of always developing in one particular mode, and giving rise to one fixed type of morbid action, the different forms of bacilli, micrococci, or bacteria—the germs of the different species of zymotic disease,—are capable of modification according to the conditions they are surrounded by; and nowhere is this more evident than in the simplest fungi (moulds and blights), to which schizomycetous disease-germs are most nearly related. Such diseases as exanthemata have, according to this view, obtained a fixity of type by a process of evolution. A ship, having on board malarial fever, was described as suddenly developing yellow fever. Typhoid and typhus were instanced as probably dependent on the same germs, developing with different intensity; cholera and autumn diarrhoea probably passing inseparably one into the other, the same germ becoming at one time innocuous, at another time virulent. Dr. Carpenter condemned the tendency amongst pathologists to regard the varieties of zymotic disease as specifically distinct. Different telluric and atmospheric conditions were one factor in developing a mild or a virulent character of the same disease-germ. In the discussion that followed, exception was taken to the idea of great interchangeability among the lower forms of vegetal life, by botanists of repute present; and Dr. Sydney Vines made the decided statement that amongst the Fungi and in the Schizomycetes there was no such thing known as one vegetal organism taking on the characters of another. Professor Thiselton Dyer, F.R.S., objected to such an amount of plasticity being claimed for the lower orders of life, which was not possessed by higher types. Dr. C. A. McMunn read a paper, in which he claimed to have discovered chlorophyll, in every respect resembling plant-chlorophyll, in the intestines of invertebrata, synthetically built up by the protoplasm. Several interesting papers have been read, showing the continuity of the protoplasm through the cell-walls in plants; and it was suggested by Professor Hillhouse that these threads of connecting protoplasm might serve to transmit impulses from one cell to another. These papers are important, as showing the unity of the whole plant individual, and the power of the whole for working together. Professor McKendrick (Fullerian Professor in the Royal Institution) delivered an interesting lecture to the public on the subject of "Galvani and Animal Electricity." He remarked that electrical currents obtained from muscles were one index of the amount of chemical change taking place, that they were evanescent and feeble, and had no relation to the general well-being; consequently, all attempts to influence the living body by magnets had no rational basis. With reference to currents produced in the living man, Dr. McKendrick thought them to be skin currents, and not currents from the muscles. Dr. W. H. Stone read a paper on "The Electrical Resistance of the Human Body," in which he stated that this resist-

ance had been much exaggerated, and was not more than 1000 ohms (about) from hand to foot. This, for instance, in one subject measured 1100 ohms at a temperature of 98°, and in the same subject (human) after death 1200 ohms. In a case of hemiplegia, instead of being increased, it was diminished to 730 ohms. With temperature increase, the resistance rises till at 105° it reaches 4000 ohms, and in one case nearly 5000; as the temperature diminishes the resistance falls. Skin resistance has been enormously exaggerated. The statements of resistances reaching 13,000 ohms were utterly devoid of foundation.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-seventh week of 1883, terminating September 13, was 910, and of these there were from typhoid fever 36, small-pox 5, measles 16, scarlatina none, pertussis 11, diphtheria and croup 25, dysentery 1, erysipelas 1, and puerperal infections 2. There were also 37 deaths from acute and tubercular meningitis, 167 from phthisis, 16 from acute bronchitis, 28 from pneumonia, 145 from infantile athrepsia (50 of the infants having been partially or wholly suckled), and 33 violent deaths. The mortality returns continue to decrease, being even fewer than last week (929), which had the smallest amount of deaths during the present year. Infantile athrepsia is the only disease which does not diminish in fatality. Of the 145 deaths caused by it, in only 16 were the infants above one year of age. There were 1174 births (596 males and 578 females), and the legitimate births were 872, the illegitimate 302.

#### EXTRACT OF PISCIDIA AS A HYPNOTIC.

DR. OTTO SEIFERT writes in the *Berliner Klin. Woch.* (No. 29) on *Piscidia erythrina*, or *Jamacia* dogwood, which belongs to the order Leguminosæ. The dogwood is a native of the West Indies and of the dry mountainous districts of the Antilles, but occurs principally in *Jamacia*. Towards the end of the last century the rind of the root was used (in the form of a decoction) for its narcotic effects by the natives of America, and also employed as a poison for fish. Professor Ott, of Philadelphia, has recently made some physiological experiments, chiefly on rabbits, with this drug. He finds that the extract of piscidia is a narcotic, not only for the higher but also for the lower animals; that it is a mydriatic; it increases the respiration, produces salivation and perspiration, reduces the action of the heart, and in large doses may cause general paralysis and death from asphyxia. The liquid extract of the rind of the root is recommended for cases of "spinal irritation," and for the treatment of chronic severe cough where opium cannot be prescribed. Von Firth has found the extract of value in patients suffering from delirium tremens, even where other narcotics, such as chloral bromide of potassium, and opium, have failed. Seifert gave some to healthy individuals, and found that it was followed by marked soporific effects, and some dilatation of pupil; but no change was observed in the pulse or temperature, nor was there any salivation or increase of perspiration. Severe coughing at night in cases of phthisis was greatly relieved by the administration of .25 of a gramme of the solid extract.

#### THE ROYAL ALBERT ASYLUM FOR IDIOTS.

In his annual report for the year 1882, Dr. G. E. Shuttleworth, the Medical Superintendent of the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, which is situated at Lancaster, states that, for the first time in the history of the institution, two patients have been returned, in the form required by the Lunacy Commissioners, as "recovered," it being considered that their



mental condition would fairly bear comparison with that of persons deemed by society as responsible for their actions. The first of these was a girl aged twenty, who had suffered in consequence of a fall on the head in childhood; and the other was a lad, who had been afflicted with hydrocephalus of a severe form in infancy. The health of the Asylum during the past year is considered to have been satisfactory, whilst the mortality was equal to an annual death-rate of 2.2 per cent. computed upon the average number resident, or 1.9 per cent. computed upon the aggregate number under care and training. Attention is called to the fact that these percentages are lower than any recorded since 1871, and below the average death-rate of the institution since its opening, which for eleven completed years is given as 3.8 per cent. upon the average number resident, and 3.2 upon the aggregate number. The comparatively low mortality of the year under notice is, the report says, no doubt mainly due to the mildness of the winter of 1881—the feeble constitutions of the children possessing but little resisting power to cold. As usual, more than two-thirds of the deaths were due to phthisis and scrofulous disease. Towards the close of the year four cases of scarlet fever occurred, but prompt removal to the Lancaster Fever Hospital stayed any further progress; and although in the spring of the year measles was extensively prevalent in the neighbourhood of the Asylum, happily the infection was not communicated to the inmates of it.

#### NEW MEDICAL SCHOOL AT BEYROUT.

THE *Progrès Médical* announces that France now possesses an additional medical school, namely, at Beyrout, in Syria. A sum of 150,000 fr. has been already expended in the construction and preparation of the lecture-rooms, complete laboratories of physics and chemistry, etc. Everything is now ready, and the lectures will commence in October. The professors are chosen from among the doctors of the French faculties, and will receive investiture from the French Government.

#### DISSEMINATED SCLEROSIS IN CHILDREN.

THE absence of any mention of this affection in the leading text-books on the diseases of childhood has induced M. Marie to investigate the literature of the subject, and the result of that inquiry is the collection of fourteen published cases in which a diagnosis of disseminated cerebro-spinal sclerosis had been made in children. The majority of these have been recorded in this country; a large proportion of them will be found in our pages during the years 1877 to 1879. The characteristic symptoms are the same as in adults, the most important being trembling on voluntary movement, usually first noticed in the legs, and generally accompanied by exaggeration of the tendon reflexes. Strabismus and nystagmus were frequently present; and affections of speech were almost constant, the speech becoming slow, monotonous, and measured; occasionally trembling of the tongue was noticed. A certain amount of mental disturbance was usually present, e.g., irritability of temper, impaired memory, or weakened understanding. Epileptiform or apoplectiform seizures were present in some of the cases. Affections of common sensation were but seldom present. In most of the cases the disease came on quite early (about the age of four years), and in one or two may have been congenital. We should exclude M. Chareot's patient altogether, as the patient was fourteen before any symptoms were recognised, and it therefore cannot fairly be grouped with cases in which the disease commenced in childhood. In several instances the disease seemed stationary, in some was slowly progressive; in one instance the patient completely recovered, but had a relapse afterwards consequent upon a fright. In only one case did death occur.

The patient in this instance was a girl of fourteen, who had first presented symptoms of nerve disorder seven years previously, strabismus, diplopia, and left facial paralysis being the first indications. Two years later, paralysis came on, and became general, but was not persistent. Mental changes commenced about the same period, and from this time the intellect progressively deteriorated. There was marked incoördination of movements before her death, but no evident muscular wasting. On examination there was found increased resistance of the brain substance, due to affection of the central parts, and not of the cortex, the whole of the corona radiata being involved and altered in consistence; the crura cerebri, crura cerebelli, and pons were also more resistant than natural, and this was more marked on the right side than the left. In the spinal cord the posterior columns were most affected, and next the lateral. Microscopically, a process of sclerosis was found to be going on in the affected areas, and it was especially noted that the changes were most obvious around the bloodvessels, which themselves had undergone some cell-infiltration. The writer is of opinion that the irregular distribution of these patches of sclerosis justifies him in considering the case to be one of disseminated rather than diffuse sclerosis. M. Marie has endeavoured, in the paper we have been analysing (*Revue de Médecine*, July), to show that disseminated cerebro-spinal sclerosis may occur in children with the same symptoms and pathology as in adults. We feel bound to confess that we do not think he has succeeded in proving his position. Out of the fourteen cases he has collected, only one proved fatal, and there was found a diffuse, or at any rate a widespread, irregular sclerosis of the white matter of the brain and spinal cord, the grey matter apparently being uninvolved. This is not quite in accordance with what is usual, nor do we consider that the symptoms and course of the disease in many of the cases were such as would exactly tally with a case of disseminated sclerosis. These cases, however, appear to us all to belong to the same group, but we consider that further pathological evidence is required before they should be classed as of the same nature as disseminated sclerosis in adults.

#### THE HOWARD MEDAL.

THE usual annual competition for the "Howard Medal" (1884) of the Statistical Society will take place subject to the rules and conditions of former years. The essays must be sent in on or before June 30, 1884. The Council have again decided to grant the sum of £20 to the writer who may gain the "Howard Medal." The subject for next year is "The Preservation of Health, as it is affected by Personal Habits, such as cleanliness, temperance, etc." (The candidates to be referred to Howard's account of his own habits, as well as to his opinions, as set forth in the text and foot-notes of his two works on "Prisons" and "Lazarettos.") Further particulars or explanations may be obtained from the Assistant-Secretary, at the office of the Society in the Strand.

#### VITAL STATISTICS OF SCOTLAND FOR THE JUNE QUARTER, 1883.

IN noticing briefly the quarterly return of births and deaths registered in Scotland during the second, or June, quarter of 1883, published by authority of the Registrar-General for that portion of the kingdom, it has to be recorded that during that period 32,420 births and 20,386 deaths were officially noted. For every 10,000 of estimated population the annual birth-rate was 3.40, or 3.40 per cent.; whereas the average rate during the corresponding quarter of the ten preceding years was 3.652 per cent. Glasgow returns show a birth-rate of 409 per 10,000; Greenock, 407.



Paisley, 381; Aberdeen and Leith, 359 each; Dundee, 342; Edinburgh, 306; and Perth, 305. Of the 32,420 births, 2530, or 7·8 per cent., were illegitimate, and the proportion of boys to girls was as 104·2 of the former to 100 of the latter, the average number of births on each day of the quarter being 356·3. The deaths registered in Scotland during this quarter were at the annual rate of 214 in every 10,000 inhabitants, which is a higher rate than that recorded in the second quarter of any year since 1878. The number of deaths registered in England and Wales during the same quarter was 133,783, and the death-rate was 201 in every 10,000 inhabitants. In Glasgow the death-rate was 320 per 10,000; in Dundee and in Greenock, 273; in Paisley, 255; in Leith, 227; in Perth, 221; and in Edinburgh and in Aberdeen, 195. The average number of deaths registered on each day of the quarter was 224. The *natural* increase of population during the quarter, calculated from the preceding figures, was 12,034, irrespective of emigration and immigration. As regards the latter, there are no means of forming a reliable estimate, but from the Board of Trade Returns it would appear that the number of Scotch emigrants during the quarter was 11,795, and this number deducted from the excess of births over deaths gives 239 as the computed increase of population for the period under notice. The return remarks that this very small estimated increase is to be explained by the fact that the death-rate for the quarter was very large, exceeding that of the corresponding quarter of 1882 by 2093, while the birth-rate for the same period is smaller by 926; the number of Scotch emigrants at the same time being great. The deaths from zymotic diseases during this quarter numbered 1626, or about 19·5 per cent. of all deaths referred to specified causes. Only one death was registered from small-pox in April, but the mortality from measles was 521, and from whooping-cough 466. As regards the weather of the second quarter of the present year, it is to be gathered from the return that April was a fine month of its order, with high barometric pressure, rather greater mean temperature, less humidity, less number of rainy days, less depth of rainfall, less strength of wind, and rather less both of north and east in the direction of the wind than usual. The characteristics of May were—slightly less barometric pressure, mean temperature, humidity, and rainfall, but more wind and with a prominent direction from the north-west. June was on the whole cold and dry, and characterised by an extra amount of east wind.

ELSEWHERE in our columns will be found a paper on the Uneovenanted Medical Service of India, which we strongly recommend to the notice and consideration of our readers. The Service is one that not a few of the young medical men who enter our crowded profession every year might find very tempting, and very suitable to their temperaments and gifts; but it is a Service that is but little heard of in England, and about which it is by no means easy to gain any clear and accurate information; and all that Surgeon-General Francis says about it may be most fully accepted.

At a meeting of the Governors of St. Bartholomew's Hospital on Thursday, September 27, Dr. Norman Moore was elected to the vacant post of Assistant-Physician.

THE Secretary of the London Fever Hospital writes to suggest that the public would give the authorities of the Hospital valuable help by sending a supply of toys for the numerous children being now received into the typhoid wards. "A few shillings," he says, "invested in this direction, would give no end of pleasure to our little patients."

WE are informed that a petition, signed by over 380 Fellows, has been forwarded to Mr. Cadge, for presentation to the Council of the Royal College of Surgeons, in support of Mr. Cadge's motion in favour of non-personal voting at the election on the Council of the College.

THE President of the Sanitary Institute of Great Britain, Professor Humphry, in the course of his opening address, advocated the institution of a Sanitary Department in the Legislature, distinct from the Local Government Board, and under the direction of a Minister of Sanitary Affairs. He could scarcely conceive of anything more likely than this to promote the well-being of the people, and their success in everything they undertook, whether it were literary, scientific, commercial, or military.

THE financial position of the Middlesex Hospital was the subject of congratulation at the usual quarterly meeting of the governors, held lately. Towards the necessary expense of the proposed new building £5000 had been realised, and legacies had been bequeathed to the amount of £11,000.

It is probable that the Right Hon. G. J. Gosehen may deliver the opening address of the forthcoming winter session at the Edinburgh Philosophical Institution.

At the quarterly board meeting of the Bristol Royal Infirmary, held on Tuesday last, the chairman stated that the introduction of fish dinners had been attended with very great success and saving to the charity. They obtained the fish direct from Great Grimsby at the rate of 2d. and 2½d. a pound, and the dinners had been approved by the patients and the staff.

THE War Department has leased twenty acres of land abutting on the sea-wall at Sheerness, to the Sheerness Local Board of Health, for the use of the inhabitants as a recreation ground.

WE learn that the Sanitary Institute of Great Britain have transferred their office to the Parkes Museum, 74A, Margaret-street, W. We understand also that Mr. E. White Wallis, F.S.S., for some years past the Secretary of the Sanitary Institute, has become the Secretary and Curator of the Parkes Museum also. We are glad to notice this evidence of the harmonious working of two societies with kindred aims.

MEDICAL CHARITIES.—The late Miss Caroline Hutton, of Eastgate, Lincoln, amongst other liberal bequests, has bequeathed £500 to build a fever ward in connexion with the Lincoln County Hospital, a similar amount to the Lincoln General Dispensary, £300 to the Eastwood Idiot Asylum, and £200 to the Samaritan Free Hospital. The Very Rev. Archibald Boyd, Dean of Exeter, leaves £250 each to the Devon and Exeter Hospital, the Cheltenham General Hospital, and St. Mary's Hospital, Paddington; £200 each to the Exeter Dispensary, the Exeter Eye Infirmary, and Deaf and Dumb Institution.

CURIOUS CRUSHING INJURY.—The Prague correspondent of the *Philadelphia Med. News* (August 11) mentions the following curious result of a crushing accident—"the man's thorax being caught between the bumpers of two cars as he was coupling them. At the autopsy no external injury was visible. Several ribs on each side were broken, and the heart was found free in the abdomen, it having been torn from its attachments to the great vessels, and forced through a rent which was made in the diaphragm. It is rather difficult to understand how the violence could have acted so as to produce this result. Most probably the man was stooping slightly forward when caught."



## THE UNCOVENANTED, OR CIVIL MEDICAL, SERVICE OF INDIA.

By Surgeon-General CHARLES R. FRANCIS, M.B.

It is much to be regretted, considering how many substantial advantages it offers, that so little is known, out of the country, of the Uncovenanted Medical Service of India. And yet it is a service which the Government there wishes to see developed. Beyond the publication of its rules in the *Government Gazette*—rules which may be obtained in India—no steps have been taken to promulgate a knowledge of the subject elsewhere. An abstract of the rules may indeed be seen in the "India List," published half-yearly by Messrs. W. H. Allen and Co., 13, Waterloo-place, London; but this is a rather expensive publication.

As the name implies, there is no covenant between the Government and the medical men of this service. These gentlemen are "picked up," as it were, in a hap-hazard sort of way; and if they satisfy a board of examiners, consisting of the senior medical officers on the spot, as to their knowledge of tropical disease and its treatment, they are admitted into the medical portion of the Uncovenanted Service.<sup>(a)</sup> But there is no uniform standard, and the examination may be searching or otherwise. The candidates must possess a recognised diploma or licence, as a guarantee of their general professional acquirements. In enlisting men under these conditions, the object of the Government originally was to supplement the regular service, and to create a permanent source from which to supply the smaller civil stations. Subsequently, however, they went further; and, about fourteen years ago, it was proposed, at a medical conference in Calcutta, to reduce the strength of the regular establishment, and to increase that of the uncovenanted body; but the proposal was never carried out.

There are, generally, a few medical men who have got to India in various ways, and who are looking out, in the presidency towns and elsewhere, for employment. From this uncertain source the Uncovenanted Medical Service is, at present, for the most part recruited; but, in the absence of any organised system of supply, and of a uniform standard of professional qualification, the result is not, and never can be, thoroughly satisfactory. The medical officers who compose this service are variously qualified. Some are able physicians and surgeons, and, both by nature and acquirements, are fitted to shine in any community. Many excellent men go abroad for two or three years as surgeons to ships, in view to seeing something of life, to becoming bronzed and rubbing off the fresh bloom of youth—a juvenile appearance being a barrier, as a rule, to success in practice at home—and to acquiring a knowledge of the world. It occasionally happens that one from this class, if he be not bound to accompany his vessel home, or, being bound, if he can provide a substitute, remains in India—induced thereto by the offer of a partnership in one of the well-to-do firms of chemists. In Calcutta these firms are almost entirely composed of qualified practitioners, and some of them have, in the past, realised very comfortable independences comparatively early in life. Shipping practice often yields a handsome addition to the yearly income; and it usually falls into the hands of these gentlemen. The owners of every vessel that comes into harbour without a surgeon give a stipulated sum monthly to the practitioner who will take medical charge of her whilst she is in port. He is expected to go on board every morning, and treat what cases will admit of it. But, there being no sick-bay in these vessels, all serious cases are sent as soon as possible to one of the presidency hospitals. The emoluments from this source frequently amount to between Rs. 1500 and Rs. 2000 a month. Or, the quondam ship surgeon may become a "planter's doctor"—often a comfortable and lucrative position. Or he may enter the railway service, and, constantly travelling up and down over his "beat" of some two hundred miles at all seasons of the year, then realise what hard work practically means. Or he may be attached to a factory, or to a Nuwab or Rajah, and

(a) Sometimes a superior member of the apothecary class is raised to the rank of uncovenanted medical officer, and appointed to a small civil station; a position which is much valued by this class, who recognise, in the prospect of one day attaining to it, a stimulus to exertion.

have medical charge of two or three dispensaries. I once met with a shrewd medical adventurer, who, failing successively in London, Canada, and Teneriffe, endeavoured to establish himself at the Cape of Good Hope. Meeting there with an Indian administrative officer, who had been sent to the Cape on medical certificate on account of an attack of insolation when on a sporting expedition in the month of May, he contrived to ingratiate himself into the officer's favour in a way that led to his permanent advancement. The officer made him his "body surgeon" on a salary of £600 a year, took him to India, and there obtained for him an appointment that provided for him for life.

The Government Service, in spite of many *désagréments*, is, by reason of the regular and fairly sufficient pay and pension, always attractive; but, however desirous the Government may be to secure efficient and estimable men, many enter it who may emphatically be classed amongst the *οι πολλοι* of medical society. Instances have occurred, where adventurers, having accepted service and not found it to their fancy, or in the hope of bettering themselves, have simply deserted their posts. The appointment of men of "low degree" to stations where high-born and delicate ladies are located is fraught with much vexation and expense; for, sooner than consult *them*, they who could afford it would seek medical aid elsewhere, even though at some cost. It is in the interest of unfortunate communities thus situated, and of the Government of India, that I write these lines.

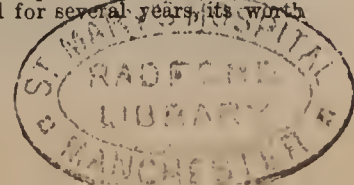
When a man has passed the prescribed age (twenty-eight) he is no longer eligible for admission into the regular, or Indian Medical, Service. For admission into the Uncovenanted Service there is no limit as to age.

The pay of an uncovenanted medical officer for the first five years is Rs. 350(b) a month, which is increased by periodical increments, at intervals of five years, till the maximum—Rs. 700 a month—is attained. This occurs after fifteen years' service. The executive charge of the gaol in civil stations yields a further income according to the number of the prisoners. It is a capitation allowance, and varies from Rs. 50 to Rs. 150 a month. Private practice may still further increase the income; but, as the stations to which uncovenanted medical officers are appointed are comparatively small, much must not be expected from this source. There are very few European Government officers in these stations, and remuneration can only be claimed for professional attendance upon their families. But a practice may be made amongst the natives. If the civil surgeon has a reputation for surgical skill, be he covenanted or uncovenanted, patients suffering from every conceivable form of disease or injury, requiring the use of the knife, will be brought from long distances. The days are past when a medical officer received a set of gold instruments as a keepsake from a grateful monarch, but handsome fees are still given occasionally by wealthy native patients. European medical practitioners of repute have, in my own time, received Rs. 50,000 for going from Calcutta to operate upon patients in the provinces; and it is not at all unusual for the civil surgeon himself to receive a large sum for a successful operation. I was well acquainted, when in India, with uncovenanted medical officers whose annual income from all sources was at least £1200 a year, and they were living upon less than half of it.

At the end of fifteen years an uncovenanted medical officer may, on the production of a certificate showing that his health will no longer allow of his serving in the country, retire upon a pension which equals a third of the average salary that he had been drawing during the previous five years, or, say, from Rs. 2000 to Rs. 3000 a year. But, either from inability to produce the necessary certificate, or from unwillingness to give up so good a service, few retire so early. After twenty-five years the retiring pension is half the last five years' average salary, or, say, from Rs. 4000 to Rs. 5000 a year.

The leave regulations are not illiberal. After twenty years' service an uncovenanted officer may have two years' furlough, three after twenty-five, four after thirty, and five after thirty-five years' service; all these several periods being allowed to count as service. This kind of leave is independent of privilege, and subsidiary, leave—the former being reckoned at one month in twelve, and

(b) In palmier days the Indian rupee was equal to a florin (2s.); but, at the rate of exchange which has prevailed for several years, its worth varies from 1s. 6½d. to 1s. 9½d.





the latter according to requirements. It is given to allow of an incumbent joining an appointment, or to enable him to prepare to leave India on furlough.(c) Then, by subscribing to the Uncovenanted Family Pension Fund—a fund distinct from the Indian Service Family Pension Regulations, under the operation of which officers of the staff corps, of the Indian Medical Service, and chaplains, are compelled to subscribe towards a fund for the benefit of their families—provision may be made for the widow and orphan. The Uncovenanted Family Pension Fund has been hitherto exceedingly well managed, and is looked upon as an institution of great value to the uncovenanted body.

The cost(d) of living will, of course, depend upon personal habits, the dearth or otherwise of provisions, and upon the individual's condition—whether he be married or single. I strongly recommend all who intend to make India the land of their adoption not to remain single in that country. With a good wife, life at a civil station in India is very enjoyable: without one, there is probably no quarter of the world that so conduces to dyspepsia and low spirits. The uncovenanted surgeon has one great advantage over his covenanted *confrère*—he is never wanted for military employ. He may, if he likes, continue throughout his entire service in one station, and thus escape the expense attendant upon long journeys, the risk of selling his property at a sacrifice, and the delay which must inevitably occur before he can acquire a professional reputation in a fresh sphere.

With regard to taking a wife to India in the first instance, the intending settler will probably act according to his inclination; but the step is scarcely wise. Both would be ignorant of the language, and neither could tell how the country would agree with them. Communication with home is, nowadays, comparatively easy; and I should, therefore, recommend the lady to remain where she is, whilst her husband, or intended, as the case may be, goes to reconnoitre.

I believe that the climate of India is not so inimical to the European constitution as is generally supposed, and that very much of the sickness that is attributed to it is preventable. Still, it does not suit everyone, and some never become acclimatised, stay as long as they may.

A medical man could not be expected to make the experiment at his own expense; but I venture to think that the liberal regulation, instituted by the East India Company, of allowing its officers to retire upon a small pension at the end of three years, upon the production of a medical certificate showing that it was impossible for them to live in the country, might be applied to uncovenanted medical officers, with whom the Government could, so far, enter into a covenant. The term "uncovenanted," as at present understood, conveys a sense of inferiority, and very frequently causes heart-burnings and jealousies. "Civil Medical Service" would be a far more satisfactory title.

Army medical officers are required to go through a special course of instruction for military service in India; and for that purpose remain four months at Netley. *A fortiori*, the medical man who is to be placed in charge of a civil station in that country should have similar instruction; for he will be completely isolated, and unable, in the moments of difficulty which occur to all during the first year or two, to consult those who are more experienced than himself in the management of tropical disease.

This service is capable of much advantageous development, advantageous alike to the State and to the medical officers, who, unsuccessful at home, and with the doors of entrance into other public services closed against them, may find a suitable footing for themselves and their families in this one; and, whilst providing for the future of both—a provision to the absence of which in England our benevolent institutions too abundantly testify—he will, if wisely selected, be a fit representative of the noble fraternity which, in various ways, is contributing so largely to the welfare of India.

If these few lines succeed in drawing attention to this important service, I shall not have written them in vain.

(c) Leave on medical certificate is granted within certain limits, a portion being allowed, as with general furlough leave, to reckon as service for pension. An officer may have, at one time, two years to Europe on medical certificate—to be extended, if necessary, to three. During these various leaves pay is given according to a fixed scale.

(d) For a stationary bachelor Rs. 250, and for a married man without children Rs. 350, a month ought to be sufficient. These sums are intended to include a very moderate allowance of malt liquor.

## FROM ABROAD.

### PROLONGED RETENTION OF A FŒTUS.

PROF. SAPPEY, at a recent meeting of the Académie des Sciences (*Comptes-Rendus*, August 27, and *Union Médicale*, September 1), read an "Account of a Fœtus which remained for Fifty-six Years in the Abdomen of its Mother, without undergoing any alteration or causing any inconvenience beyond that resulting from its weight and size."

When a fœtus, he observes, encounters an obstacle which prevents its expulsion, it dies, and becomes, in the vast majority of cases, the cause of accidents to the mother which prove fatal. In some exceedingly rare cases, however, the fœtus comports itself as a simple foreign body, to which the surrounding organs so well habituate themselves that a new pregnancy may even occur, and follow its natural course. These exceptional cases have excited much attention, and were especially investigated by Morand in the middle of the last century. All the instances of very prolonged retention on record have presented identical conditions, the fœtus having been found rolled up on itself and enclosed in a cyst of bony hardness; and this cyst, deprived of all traces of organisation, separated the fœtus so completely from the neighbouring organs, that its organic connexions with the mother, once so intimate, no longer existed. But these conditions afford little explanation of why the fœtus so placed did not undergo putrefaction. This was attempted to be explained by the petrification of the fœtus; but the facts failed to show the reality of this, and the views of Morand, that the preservation of the fœtus was due to the drying-up of its tissues, and the incrustation of the air-tight cyst in which it was enclosed, were generally accepted.

All the instances heretofore known of a fœtus having been retained in the abdomen for many years, conformed to this explanation: but the case now brought before the Academy is completely opposed to it; for this fœtus, which remained in the abdomen of its mother for fifty-six years, and which ought to have been more dried up than any of its predecessors, was, in fact, not desiccated at all, its various parts retaining their normal consistency. The mother of this fœtus became pregnant at twenty-eight years of age, and having reached the age of eighty-four (in the enjoyment of tolerable health), she was brought, in 1845, to the Hospice of Quimperlé, where she died soon after from an affection of the respiratory organs. At the autopsy, M. Beaugendre found that the tumour which had existed for so many years was placed at the outer side of the uterus, in the course of the right Fallopian tube. It was covered all over with calcareous deposits and incrustations, presenting the appearance of a cyst with an unequal and mammeloned surface, of a bony consistence, and adhering at some points to neighbouring organs. Of an irregularly ovoid form, it measured eighteen centimetres along its great axis, its walls having a thickness of from two to three millimetres. On the cyst being sawn into two equal parts, great was the surprise of all present at finding in this inclosure, apparently of a mineral nature, a fœtus which, during its prolonged captivity, had undergone no change whatever. It lay in the ordinary foetal attitude, with its limbs folded on the trunk and its head inclined upon the thorax. The two completely formed pupillary membranes attested that it was of an age from the sixth to the seventh month. The superficial organs, the viscera contained within the great cavities of the body, all the muscles, and all the other soft parts, had preserved their consistence, their suppleness, and their normal colour. The hairy scalp was covered with hairs that were already very long. The two eyelids concealed the globe of the eye, and on the free border was placed a double row of well-formed eyelashes. The fœtus, in fact, conveyed to those present the idea of a sleeping infant.

The drying-up theory having to be abandoned, and the influence of the exclusion of air, to which Morand attached deserved importance, having to be modified in the light of Pasteur's experiments (which prove that pure air is not provocative of putrefaction in organic bodies), Prof. Sappey thus formulates what he terms the new theory:—"The fœtus which, after its death, is preserved for an indefinite period in the abdomen of its mother owes its preservation



to the physical conditions of its imprisonment, which have the advantage of sheltering it from the action of atmospheric germs." This "Quimperlé fœtus," by which name it will be henceforth known, after having been carefully examined, was placed in slightly diluted alcohol, and as this gradually became turbid, M. Beaugendre, to avoid the trouble of its frequent renewal, unfortunately determined to expose the fœtus to the air for the purpose of desiccating it. This he accomplished, and irretrievably spoiled the preparation, and incurred Prof. Sappey's sharp reproaches, which he received with due penitence. Such as it is, it has at last been presented to the Académie; but Prof. Sappey gives no explanation of the long delay that has elapsed between the discovery (in 1845) of this remarkable and unique case, and the publicity now given to it.

#### HERNIOTOMY AND ANTISEPTIC TREATMENT.

At the recent Congress of German Surgeons (*Centralblatt für Chirurgie, Beilage*), Dr. Benno Schmidt, of Leipzig, read a paper upon "The Results of Herniotomy since the introduction of Antiseptic Treatment." For the purpose of replying to the question as to how far the results of herniotomy have improved since the introduction of the Listerian method, Dr. B. Schmidt has had compiled the histories of a number of cases that have been treated in German hospitals and clinics between 1877 and 1881, and has thus collected accounts of 363 operations, of which 308 were performed for strangulated hernia, and 55 for the radical cure of non-strangulated hernia; while, prior to Lister's procedure, the mortality from herniotomy amounted to 45·8 per cent. Of these 308 cases 113 proved fatal, furnishing a mortality of 36·6; the improvement, therefore, only amounting to 9·2 per cent. Several fatal cases were due to intercurrent or complicating diseases which did not influence the condition of the wound, peritoneum, etc., but, after abstracting these cases, the mortality remained at 30·9 per cent. Of 249 patients there died 77 from septic causes, and but a few from perforating peritonitis. These results will take many by surprise, if they do not bear in mind that in an operation for strangulated hernia there cannot be a question of an antiseptic operation as generally understood. The substance of the inflamed intestine is pervious, and its vicinity very soon after the commencement of the strangulation takes on a septic condition. That this is the case will be seen from the results of the operation (Petit's) external to the sac, for which cases of short duration, and presumably with a better condition of the contents of the sac, are always chosen; and yet, of the 16 cases so operated upon, 4 proved fatal from septic peritonitis. The other cases were ranged in four categories—(1) herniotomy, with return of the intestine, with a mortality of 27·4; (2) excision of the omentum, and the same, 22·2; (3) excision of the intestine, and return of the sutured gut, 76·1; and (4) the formation of an artificial anus, 80·5. Septic peritonitis was the cause of death in 50 per cent. of the first category, 66·6 of the second, 87·5 of the third, and 50 of the fourth category.

Of the 55 cases of operation for the radical cure of non-strangulated hernia, 11 proved fatal, septic peritonitis being the cause of death in one-half of the cases.

From the above statistical statement Dr. Schmidt draws the following conclusions:—1. The results of operations for strangulated hernia are not capable of attaining the same improvement by means of the antiseptic procedure as are operations executed on healthy parts, because they are performed on parts already septicly infiltrated. 2. These results, however, would probably be better if we limited ourselves more to the strict necessity of the case by the removal of what immediately endangers life, viz.:—(a.) In operations in which the return of the intestine is only in question, we should not add to this an operation for the radical cure of the hernia. (b.) When there is a co-existing descent of unreturnable omentum, we should confine ourselves, as a general rule, to the return of the liberated intestine, in place of always proceeding to excise the omentum. (c.) When we meet with a gangrenous condition of the intestine, not only in doubtful cases, but in all cases, we should abstain from at once proceeding to the excision and suture of the gut—facilitating the passage of the contents of the canal, and leaving the gut at rest outside until the cleansing of the wound allows of the application of the sutures. 3. The operation for the radical cure of non-strangulated hernia

should only be performed in those instances in which the urgency of the case outweighs its danger.

Prof. Gussenbauer, of Prague, stated that his experience, derived from between 140 and 160 operations for strangulated hernia, led him, in opposition to the views of Dr. Schmidt, to attribute a remarkably favourable effect to the antiseptic procedure. He also regarded the basis on which Schmidt had founded his statistics as faulty, as it enabled no account to be taken of the peculiarities of the different cases operated on. And yet it exerts an essential influence on the result of a replacement of a strangulated hernia, with or without operation, whether peritonitis is or is not already present. Statistics which do not take this point into consideration possess no general validity.

#### REVIEWS AND NOTICES OF BOOKS.

*The Principal Southern and Swiss Health-Resorts: their Climate and Medical Aspect.* By WILLIAM MARCET, M.D., F.R.C.P. Lond., F.R.S., late Senior Assistant-Physician to the Westminster Hospital, and the Hospital for Consumption and Diseases of the Chest, Brompton, etc. London: J. and A. Churchill. 1883. 8vo, pp. 400.

DR. MARCET, who spent three winter seasons at Nice, and six at Cannes, engaged in medical practice, has in this volume given the public and the profession the benefit of his experience of the value of southern climates for invalids. He hopes his book will be "not altogether wanting in medical and public utility"; and we are sure it will be found very useful both by medical men who desire to know all they can gather about foreign health-resorts, and by those of the public who have to leave home in search of health. The first and second chapters of the book give general and special advice to invalids about to winter on the Riviera; deal with the important subjects of dress and food, and that of hotels, boarding-houses, apartments, etc.; and of social life. Then follows a chapter on "The Natural Laws of Climate"; and one on "Winds and Weather on the Mediterranean"; and "Pursuit of Health from a Mediterranean Cruise." The rest of the work treats of the special health-resorts along the French and Italian Riviera; of Algiers, Pau, Pisa, Rome, Naples, Palermo, and Egypt; of the principal health-resorts in Switzerland; and of the island of Madeira, and the island of Teneriffe.

Dr. Marcet does not give any new information as to the remedial value, and the medical drawbacks, of these foreign health-resorts generally—who could?—but Teneriffe is but little known as yet. Dr. Marcet has not much to say about it from his own experience, as he was in the island only a very few weeks, and the more part of that time was occupied in ascending and bivouacking on the Peak, of which he gives a very interesting account. But he learned a good deal about the climate of the island from a physician in practice there, and from other sources; and as the result of all he says—"I am inclined to believe that Teneriffe will eventually become a favourite station for consumptive invalids; and, even at present, those who can put up with fair, though not, perhaps, luxurious accommodation, may find acceptable quarters at Puerto Orotava and the Villa Orotava, while there are pretty good houses to be had at Laguna. I do not think the English would quite like the Spanish hotel accommodation at Santa Cruz, but I believe comfortable houses can be had in the town; it will be necessary, however, to put up with Spanish cooking and Spanish attendance."

Dr. Marcet's book is freely and well illustrated, and well brought out.

*A Treatise on the Diseases of the Nervous System.* By JAMES ROSS, M.D., LL.D. Second Edition. Two Volumes. London: J. and A. Churchill. 1883.

THE fact that a work consisting of 2000 pages on a special subject should have reached a second edition in less than three years is probably almost unparalleled in the annals of medical literature, and affords the most striking proof of the state of public opinion on the book. Such being the case we shall only call attention to the author's views on a few of the more disputed points, leaving our readers to refer to the work itself for further information.

The exact nature of the knee-reflex is discussed at length



and with much care, the question being, of course, whether the contraction of the quadriceps is due to direct irritation from the blow, or whether it be due to a true spinal reflex. After quoting Dr. De Watteville's experiments he concludes: "It would appear certain that the knee-jerk is not caused by reflex but by direct action, and that it is due, as was at first supposed by Westphal, to the sudden stretching of the muscular substance itself. It is at the same time of great importance to notice that the integrity of the reflex loop is necessary to its production, and that the reaction is readily abolished by disease of the spinal centres, or of the afferent or efferent nerve-paths. It would seem that the reaction does not take place unless a certain degree of *tonus* is maintained in the muscle, and that the reflex influence is necessary for the maintenance of this condition."

The fact that conjugate deviation of the eyes and rotation of the head and neck in cases of hemiplegia is usually transient, is probably well known to all physicians, and Dr. Ross offers a sensible and simple explanation of it. The nucleus of one third nerve is connected with the nucleus of the opposite sixth nerve by commissural fibres, and thus becomes connected with the cortex of the hemisphere on its own side. It is by means of these fibres that the lateral movements of the eyes are carried out. But the third nerve nucleus is also connected with the cortex of the opposite hemisphere, and when the common path is interrupted by disease, the disused communication between the third nerve nucleus and the cortex of the opposite side commences to transmit impulses, then the commissural fibres to the opposite sixth nerve gradually get opened up, and thus by degrees the paralysis disappears.

The important subject of diagnosis of diseases of the nervous system Dr. Ross treats of under three heads—viz., Clinical, Topographical, and Pathological,—and of these the topographical is divided into peripheral, spinal, and encephalic lesions, the pathological diagnosis including vascular, inflammatory, and degenerative lesions, and the new formations. The definitions given of these different forms are concise, and at the same time sufficiently full.

Unable to feel satisfied with the existing theories of optic neuritis, Dr. Ross puts forward his own views in the following words:—"The relation subsisting between the ganglia of the posterior roots of the spinal nerves and the afferent nerves is well known. The structure of the external geniculate bodies lends countenance to the view that they are the homologues of the ganglia of the roots; and if so, they will bear a similar relation to the nutrition of the optic nerves that the spinal ganglia do to the sensory spinal nerves. Irritation of the external geniculate bodies may, therefore, be supposed to give rise to trophic changes in the optic nerves; and if the position of these bodies near the edge of the tentorium, and in the angle formed by the crura and corpora quadrigemina with the posterior lobes of the cerebrum, be taken into account, it will be seen that irritation would be very liable to be produced by various diseases of the brain, and especially by diseases like tumour, which are likely to cause displacements of the relative positions of the different parts of the encephalon." It seems to us that a grave objection to this theory is that it ignores one of the chief facts in regard to optic neuritis—viz., that microscopical examination of the affected nerves points strongly to the belief that the perineurium is the primary seat of the disease, and that in the early stages the inflammation is more marked at the periphery than in the central portion of the nerve. Should subsequent investigation prove the correctness of these observations, the theory of a descending cerebritis will be untenable.

Dr. Ross inclines to adopt Friedrich's views on the mode of production of palpitations in exophthalmic goitre, according to which paralysis of the vasomotor nerves of the sympathetic is followed by dilatation of the coronary arteries, increased flow of blood to the muscular walls of the heart, and increased excitement of its ganglia. This hypothesis removes the necessity for presupposing that a permanent lesion could be set up by continuous irritation without any paralysis resulting.

Dr. Ross describes and figures an accessory nucleus of the hypoglossal nerve, which consists of a large number of very small caudate cells. The position of this nucleus does not appear to be quite constant, but it is almost entirely limited to one side, although faint traces of it may occasionally be observed in the opposite side. It is scarcely

recognisable on either side of the medulla at the ninth month of embryonic life. Dr. Ross has not yet noted on which side of the medulla it is found, but he surmises that it may be connected with the third left frontal convolution, and may have to do with the regulation of the movements of articulation.

In the former edition of this work Dr. Ross expressed the opinion that in pseudo-hypertrophic paralysis the nervous system was primarily at fault, but he has since met with a case, which he publishes in detail, in which no lesion could be detected either in the spinal cord or in the sciatic nerve, or in that portion of the brachial plexus which supplied affected muscles in the arms. He has therefore abandoned his former view, and now accepts the theory of a primary affection of the muscles themselves. In connexion with this subject Dr. Ross suggests, with much probability, that the cases of progressive muscular atrophy where the spinal cord has been found healthy may have been, in reality, irregular cases of pseudo-hypertrophic paralysis.

Speaking of the clonic spasms which sometimes precede hemiplegia, and are known by the name of *præhemiplegic hemichorea*, Dr. Ross suggests two explanations. One is that an interruption has occurred in the fibres connecting the cerebrum and cerebellum, so that the normal balance between these two organs is disturbed; and the other theory is that the damaged fibres all belong to the pyramidal tract, and that those which suffer most are related to the more fundamental, and not to the more special functions. "Partial injury done to the fundamental motor mechanism, while the accessory one is left unaffected, would be very likely to cause the phenomena of hemichorea. In such an event the usual tonic contractions and exaggerated tendon reactions would result from injury of the pyramidal tract, while the apparatus of the more voluntary and special actions, although still uninjured, would act in an irregular manner owing to the damage done to the fundamental apparatus."

This doctrine of a fundamental and accessory apparatus is applied to the explanation of almost every disease, and we shall have occasion to allude to it again.

The spastic paraplegia occasionally met with as a congenital defect in young children is due, according to Dr. Ross's views, to a parencephalic defect of the cerebral centres rather than to an arrested development of the lateral columns of the cord, which he admits would explain the rigidity; and, to our way thinking, seems the more probable cause, as it is by no means uncommon in these cases to have no cerebral symptoms present whatever.

In regard to the diagnosis of tubercular meningitis, we read: "Examination of the retina may throw light on the nature of the affection. When general miliary tuberculosis exists, tubercles of the choroid are frequently found, but they are absent in tuberculosis affecting the pia mater alone." We have only two remarks to offer on this passage—first, that if the tubercles affect the pia mater alone, it is obvious that they will not be present in the choroid; and, secondly, that cases in which tubercles can be recognised in the choroid at a sufficiently early period of the disease to be of any diagnostic value are quite the exception.

Another passage to which we would likewise take exception is that referring to the etiology of congenital hydrocephalus, in which he says, "congenital syphilis is probably the most important predisposing cause, and it is possible that too much importance has been attributed to rickets in its production." Now, if the hydrocephalus be really congenital—which we very much doubt—it is clear that rickets can have nothing to do with its production; but we should be glad to know what sort of evidence Dr. Ross can bring forward in support of its syphilitic origin: our own belief is that in the majority of instances there has been a preceding attack of basic meningitis.

In the article on Tetany we find no mention of rickets as a factor in children; nor of the presence of facial irritability, which is almost, if not quite, constant; nor of the effect on the spasm of the administration of chloroform to the patient,—all of which are very important points in the disease.

In a fatal case of chorea, in which he had an opportunity of examining the nervous centres microscopically, Dr. Ross found spots of necrotic softening in the corpora striata, and marked changes in the anterior and antero-lateral arteries of the cord, and also a shrivelled granular state of the accessory motor cells in the anterior cornua of



the cord—changes, so far as the bloodvessels are concerned, closely resembling those described by Dickinson some years since. Dr. Ross, however, does not show any good reason why these changes should be regarded as the cause of the disease rather than as the result. Surely, if such central changes as are here mentioned were the cause of the symptoms in chorea, we should not find that recovery would be so complete as it invariably is, and fatal cases, instead of being exceedingly rare, would be by no means uncommon. Basing his views chiefly on the fatal case already alluded to, Dr. Ross arrives at the opinion that chorea is a “widely distributed disease of the nervous centres, in which the cerebro-spinal motor functions and mechanisms are specially affected, the accessory functions and structures being affected at an earlier period and more profoundly than the fundamental functions and structures,” and he considers that three factors contribute to its production—first, anæmia of the nervous centres leading to excessive irritability; second, a profound mental impression, usually fright; thirdly, an inherent instability of the nervous system. Whilst we agree with Dr. Ross in rejecting the embolic theory of the origin of chorea, we cannot follow him in putting rheumatism on one side, “inasmuch as the disease may occur in the absence of a history of active rheumatism.” If amongst the children of the poor we are to wait for a history of active rheumatism before calling an affection rheumatic, we shall very soon arrive at the conclusion that rheumatism is a disease from which childhood is nearly exempt—the very reverse of the fact. The fact that parents give no history of rheumatism must be taken for what it is worth, and nothing more—i.e., that they do not know that their child has suffered from rheumatism. What the association between chorea and rheumatism is, does not at present concern us, but that it is present in a large majority of cases, a not inconsiderable experience has satisfied us. Another factor, not mentioned by Dr. Ross, but one which plays as important a part as fright, in London at any rate, is the mental overstrain induced by the School Board examinations.

We ought to add that both volumes are profusely illustrated with woodcuts, and that references are given in footnotes to the works of authors whose opinions or writings are quoted, the references being so numerous as to constitute a valuable bibliography. The work fully deserves the success it has met with.

*Formulaire des Maladies des Voies Urinaires.* Par F. MALLEZ. Paris: Adrien Delahaye. 1883. Pp. 292.

*Formulary for Diseases of the Urinary Organs.* By F. MALLEZ.

DR. MALLEZ has for many years enjoyed a reputation in this special department of practice; and a book in which are collected the various formulæ which experience has taught him are useful in urinary diseases will doubtless prove useful to the general practitioner. In the first place the author discusses diet; this is of prime importance unquestionably. Then come various drugs, such as opium, belladonna, phosphorus, ergot, cantharides, balsams, and others. The action of mineral waters comes next, and the various forms of purgative and diuretic medicines. In the second part of the book, external medication is discussed; and, in addition, some hints on the mode of use of the more important: as the author says, “Why speak of vesical injections unless we indicate their mode of administration, and the method of rendering this little operation as harmless as it is efficacious?” The work finishes with a series of tables in which the systematic treatment of the various diseases is laid down in a short and concise manner. The book will prove more useful to practitioners than to students, for a previous knowledge of the diseases of which it treats is essential to the selection of the remedy best suited to the individual case.

*American Journal of Neurology and Psychiatry*, May, 1883.

DR. SPITZKA is represented in this number by no less than three papers—one on Insane Delusions; one (which, we are told, is a chapter in a forthcoming work on Insanity) on How to Examine the Insane; and a lengthy communication containing Contributions to Encephalic Anatomy, which are more curious than important. Mr. Howard has a paper on the Somatic Etiology of Crime, which does not call for notice; and the remainder of the number is occupied by comments on the Medical Jurisprudence of the State of New York, which are of local interest only.

## GENERAL CORRESPONDENCE.

### METAPHYSICS IN PATHOLOGY.

LETTER FROM DR. R. SAUNDBY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I do not think anyone can claim as his own “the application of the doctrine of the origin of species to the case of specific diseases.” Certainly the idea has been familiar to me since early student days, and I obtained it from Niemeyer (“Text-book of Practical Medicine,” translated from the eighth German edition, 1871, vol. ii., pp. 605-6). But this familiarity by no means lessened the pleasure with which I read Dr. Creighton’s able address.

I am, &c.,

ROBERT SAUNDBY.

September 22.

### ST. JOHN’S HOUSE, NORFOLK-STREET.

LETTER FROM MR. G. W. BELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reply to many inquiries, I beg you to permit me thus to announce to the professional friends of St. John’s House the fact, which has already appeared in the usual advertisements, that there has been no cessation in the nursing work of this institution.

Skilful medical and surgical nurses can be obtained on application to the Lady Superior, personally or by letter. The hospital work at King’s and at Charing-cross is continued as heretofore. I may add that the Lady Superior can recommend two very good nurses ready to go abroad.

I am, &c.,

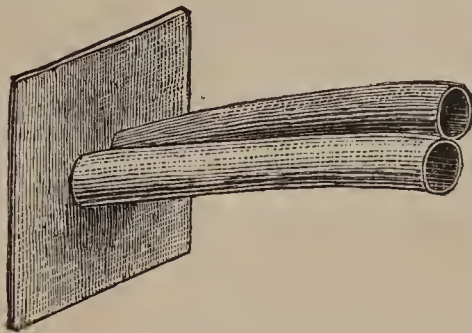
GEORGE WILLIAM BELL, Hon. Secretary.

St. John’s House, 7 and 8, Norfolk-street, Strand, W.C.

## NEW INVENTIONS AND IMPROVEMENTS.

### DRAINAGE-TUBE FOR EMPYEMA.

THE increasing use of a double drainage-tube for cases of empyema has induced Messrs. Mayer and Meltzer, of Great Portland-street, W., to make a special form of drain, as represented in the woodcut. It has the advantage of being



in one piece, very pliable, with tubing which can be cut to any required length. Surgeons, we think, are now agreed that a chest drains better with a double opening into it, on the principle that the discharge cannot get out unless air gets in. By making one free opening, and putting in such a tube as is here represented (in actual use one of the tubes should be a little longer than the other), the double opening is practically obtained. We can speak well of its value from personal observation of cases in which this form of tube has been used.

### NEW SURGICAL NEEDLE AND THREAD:

By JOHN WARD COUSINS, M.D. Lond., F.R.C.S.,

Surgeon to the Royal Portsmouth Hospital.

A VERY simple innovation, in which the ordinary steel needle is superseded by converting the end of the wire into a needle. The wire is cut into equal lengths, and each piece is separately reduced by drawing, with the exception of an inch or two at one extremity. The end is then converted into a convenient needle by pointing and burnishing.

The invention is intended to secure several novel and important advantages in practice. The needle is always new and



clean, and it can be used for only a limited number of sutures. It requires no preparation or threading, and the continuity of the needle and the ligature prevents the delay in introduction which often occurs with the ordinary needle from kinking or twisting at the eye. The point is always perfect, so that the pain of penetration is considerably reduced.

The needle can be obtained from Messrs. Maw, Son, and Thompson, and it is made both in silver and in steel. The silver needle can be bent by the surgeon to any shape suitable for the purpose for which it is to be applied.

#### PORTABLE IRRIGATOR AND ENEMA APPARATUS.



MESSRS. ALLEN AND SON, of Marylebone-lane, have added to their long list of sanitary appliances a small, convenient irrigator for dressing wounds, washing out the chest, etc. The apparatus can be used also as an enema or as a vaginal douche by substituting one nozzle for another, according to the needs of the case. The advantages of all such instruments over syringes will be obvious to everyone, apart from the facts that the current is constant and its force can be regulated to a nicety by the height at which the small cistern is placed. We think it will prove useful. The sub-

joined illustration will explain its size and appearance.

#### MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 20 :—

Bateman, Frederick Augustus Newton, Pall-mall, S. W.  
 Habgood, William, Wimborne, Dorset.  
 James, James Prytherch, Eastlake-road, Loughborough.  
 Little, Andrew Johnston, Belfast.  
 Lockwood, Harry, Gudeliffe Vale-road, Sheffield.  
 Marsden, James Aspinall, Paulet-road, Camberwell.  
 Smith, Joseph Spilsbury, Free Town, Sierra Leone.

#### APPOINTMENTS.

\* \* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

**PROWSE, ARTHUR BANCKS, M.D. Lond., F.R.C.S. Eng.**—Assistant-Physician for the Out-Patient Department of the Bristol Royal Infirmary.

#### DEATHS.

**BALDING, JAMES, M.R.C.S.,** at Barkway, Herts, on September 25, aged 86.  
**FINCH, HENRY, M.D.,** at Colchester, on September 19.  
**HEWAN, ARCHIBALD, M.D.,** at 9, Chester-square, on September 20, aged 51.  
**HODGE, BENJAMIN TERRY, M.R.C.S., L.R.C.P., L.S.A.,** at Sidmouth, on September 20, aged 65.  
**HOLMAN, J. R., M.D., R.N.,** Deputy Inspector-General of Hospitals and Fleets (retired), at Gipsy Hill, on September 19, aged 59.  
**YARDE, WILLIAM, M.D.,** late Staff-Surgeon of H.M. Navy, at Fairlea, Beechin Cliff, Bath, on September 19, aged 47.

#### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**JOINT COUNTIES ASYLUM, ABERGAVENNY.**—Senior Assistant Medical Officer. Salary £150 per annum, with board, lodging, and washing. Candidates must be duly qualified. Applications, with not more than three testimonials, to be sent to the Medical Superintendent on or before October 1.

**ST. GEORGE'S, HANOVER-SQUARE, PROVIDENT DISPENSARY, 59, MOUNT-STREET, W.**—Resident Medical Officer. Salary and allowance last year £212 2s. 9d. Candidates must be doubly qualified, and duly registered under the Medical Act, and about thirty years old. Unmarried candidates preferred. Applications and testimonials as to character, etc., to be sent to the Secretary, G. H. Leah, jun., 73, Park-street, W. (from whom all further particulars may be obtained), not later than Sept. 29.

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

**Chepstow Union.**—Dr. S. W. A. Napier has resigned the Tintern District : area 13,993 ; population 2841 ; salary £40 per annum.

**Downham Union.**—Dr. W. B. Hunter has resigned the South Welney District : area 1814 ; population 368 ; salary £10 per annum.

**Leigh Union.**—Mr. Thomas D. Paradise has resigned the Leigh District and the Workhouse : area 3364 ; population 14,487 ; salary £70 per annum ; salary for Workhouse £30 per annum.

**Oundle Union.**—Mr. William F. Smith has resigned the Weldon District : area 8980 ; population 1497 ; salary £50 per annum.

#### APPOINTMENTS.

**Brecknock Union.**—David V. Rees, M.R.C.S. Eng., L.R.C.P. Lond., to the Llangorse District.

**Cockermouth Union.**—James Little, M.R.C.S. Eng., M.D. Edin., L.S.A. Lond., to the Maryport District.

**Coventry.**—Alfred B. Hill, M.D., as Analyst for the City, vice Dr. Swete, resigned.

**Ormskirk Union.**—Frederick F. Moore, L.R.C.S. Ire., L.R.C.P. Edin., to the Second District.

**ROYAL COLLEGE OF SURGEONS.**—The Museum and Library of this institution will be re-opened on Monday next, the 1st prox. The new Calendar of the College will show a good increase in the number of its Fellows, now amounting to 1166, including nearly 600 who have obtained this honour by examination. There appear to be only five elected under Section 5 of the Charter of 15th of Victoria—viz., Mr. E. R. Bickersteth, of Liverpool ; Sir Joseph Fayrer, F.R.S., of Wimpole-street, W. ; Professor T. H. Huxley, F.R.S., of Marlborough-place, N.W. ; Mr. Oliver Pemberton, of Birmingham ; and Mr. John Tomes, F.R.S., of Caterham. There are three gentlemen who are *ad eundem* Fellows—viz., Mr. A. E. J. Barker, of Harley-street, and Sir William Mac Cormac, of Harley-street, Fellows of the Irish College ; and Mr. K. King, of Hull, of the Edinburgh College of Surgeons. The oldest Fellow of the College appears to be Mr. James Moncrieff Arnott, F.R.S., a former President, who, seeing he was admitted a Member so long ago as April 4, 1817, when it was necessary to be twenty-two years of age, must now be in his eighty-ninth year.

**WATER FOR INFANTS.**—Under this heading the *New York Med. Record* for August 18 has the following observations :—“ With the exception of tuberculosis, no disease is so fatal in infancy as intestinal catarrh, occurring especially during the hot summer months, and caused, in the great majority of cases, by improper diet. There are many upon whom the idea does not seem to have impressed itself that an infant can be thirsty without, at the same time, being hungry. When milk, the chief food of infants, is given in excess, acid fermentation results, causing vomiting, diarrhoea, with passage of green or yellowish-green stools, elevated temperature, and the subsequent train of symptoms which are too familiar to need repetition. The same thing would occur in the adult if drenched with milk. The infant needs not food, but drink. The recommendation of some writers, that barley-water or gum-water be given to the little patients in these cases, is sufficient explanation of their want of success in treating this affection. Pure water is perfectly innocuous to infants, and it is difficult to conceive how the seeming prejudice to it ever arose. Anyone who has ever noticed the avidity with which a fretful sick infant drinks water, and marks the early abatement of febrile and other symptoms, will be convinced that water, as a beverage, a quencher of thirst, a physiological necessity, in fact, should not be denied to the helpless member of society. We have often seen an infant which had been dosed *ad nauseam* for gastro-intestinal irritability assume, almost at once, a more cheerful appearance and rapidly grow better when treated to the much-needed draught of water. If any prescription is valuable enough to be used as routine practice, it is—‘ Give the babies water.’ ”

**SULPHATE OF ATROPIA IN CORYZA.**—Atropia possessing the property of diminishing the nasal secretion, Dr. Gentilhomme determined to try its effect in coryza. In several very bad cases, with abundant secretion, fever, and embarrassment of respiration, engendering in some true attacks of asthma, a pill containing half a milligramme of the sulphate, given at the commencement of the inflammatory period, has arrested the coryza. In cases of confirmed coryza the sulphate also gives relief, but its effect is less decided than when given at the commencement of the affection.—*Union Méd.*, September 4.



VITAL STATISTICS OF LONDON.

Week ending Saturday, September 22, 1883.

BIRTHS.

Births of Boys, 1258; Girls, 1212; Total, 2470.  
Corrected weekly average in the 10 years 1873-82, 2592.4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	659	627	1286
Weekly average of the ten years 1873-82, } corrected to increased population ...	725.1	685.7	1410.8
Deaths of people aged 80 and upwards ...	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	3	4	6	5	...	3	...	3
North ...	905947	1	2	10	8	7	...	15	...	11
Central ...	282238	...	...	5	2	2	...	3	...	4
East ...	692739	...	4	19	3	11	...	2	...	11
South ...	1265927	1	6	17	7	6	...	2	...	25
Total ...	3816483	2	15	55	26	31	...	25	...	54

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	29.798 in.
Mean temperature ...	...	...	...	...	...	...	58.4°
Highest point of thermometer ...	...	...	...	...	...	...	77.1°
Lowest point of thermometer ...	...	...	...	...	...	...	48.1°
Mean dew-point temperature ...	...	...	...	...	...	...	53.6°
General direction of wind ...	...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	...	0.24 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
Week ending Saturday, Sept. 22, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Sept. 22.	Deaths Registered during the week ending Sept. 22.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2470	1286	17.0	77.1	48.1	58.4	14.66	0.24	0.61
Brighton ...	111262	53	47	22.0	69.0	50.0	59.0	15.00	0.54	1.37
Portsmouth ...	131478	86	43	18.3	...	...	...	...	...	...
Norwich ...	89612	57	38	22.1	...	...	...	...	...	...
Plymouth ...	74977	42	35	24.4	68.9	48.2	57.4	14.11	0.57	1.45
Bristol ...	212779	131	64	15.7	73.5	48.5	58.1	14.50	0.42	1.07
Wolverhampton ...	77557	56	30	20.2	70.5	42.3	55.7	13.17	0.66	1.68
Birmingham ...	414346	269	175	22.0	...	...	...	...	...	...
Leicester ...	129433	77	38	15.3	...	...	...	...	...	...
Nottingham ...	199349	183	76	19.9	73.8	41.8	57.8	14.34	0.59	1.50
Derby ...	85574	52	24	14.6	...	...	...	...	...	...
Birkenhead ...	88700	50	30	17.6	...	...	...	...	...	...
Liverpool ...	566753	334	287	26.4	...	...	...	...	...	...
Bolton ...	107862	68	43	20.8	72.3	47.6	56.7	13.72	0.74	1.83
Manchester ...	339252	232	151	23.2	...	...	...	...	...	...
Salford ...	190465	111	79	21.6	...	...	...	...	...	...
Oldham ...	119071	96	43	18.8	...	...	...	...	...	...
Blackburn ...	103460	78	54	26.0	...	...	...	...	...	...
Preston ...	98564	74	41	21.7	69.0	51.0	58.6	14.78	0.65	1.65
Huddersfield ...	84701	53	33	20.3	...	...	...	...	...	...
Halifax ...	75591	45	22	15.2	...	...	...	...	...	...
Bradford ...	204807	84	79	20.1	68.7	49.2	57.2	14.00	0.58	1.47
Leeds ...	321611	203	146	23.7	72.0	48.0	58.1	14.50	0.58	1.47
Sheffield ...	295497	201	118	20.8	70.0	45.0	56.7	13.72	0.45	1.14
Hull ...	176296	125	69	20.4	72.0	42.0	55.8	13.23	0.40	1.02
Sunderland ...	121117	103	54	23.3	...	...	...	...	...	...
Newcastle ...	149464	98	83	29.0	...	...	...	...	...	...
Cardiff ...	90033	85	44	25.5	...	...	...	...	...	...
For 28 towns ...	5620975	5569	3235	19.6	77.1	41.8	57.5	14.17	0.54	1.37
Edinburgh ...	235946	111	74	16.4	...	...	...	...	...	...
Glasgow ...	515589	331	230	23.3	70.0	43.8	55.1	12.84	1.15	2.92
Dublin ...	349585	185	167	24.9	69.0	41.7	55.4	13.00	0.27	0.69

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.80 in.; the highest reading was 30.05 in. on Monday morning, and the lowest 29.49 in. on Saturday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

“UTERINE DISPLACEMENTS.”

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your correspondent, “The Bare-Faced Monkey,” betrays his pithecoïd origin, not to say ignorance, in confusing two perfectly different postures—the genu-pectoral and the genu-manual. Not only are these postures different, but their indications are not to be confused. It is sufficient to point out that either may be indicated according to the amount and direction of flexion or version of the uterus; in other words, according to the amount of the angle formed between the axis of the brim (any deviation from which is pathological) and that of the uterus, and which should be called the “angle of divergence,” or the “utero-pelvic angle.”

It must also be remarked that the “Bare-Faced Monkey’s” loose talk about “flexions,” as if they were all alike, casts discredit on the writer, and shows no signs of the increasing interest with which these important maladies are being regarded, and indeed measured. The time is perhaps not far distant when the required posture may be absolutely indicated by a mathematical formula depending on the angle of flexion or version.

It is needless to point out that the genu-pectoral and genu-manual positions are adapted only for retro-versions and -flexions; in ante-versions and -flexions the proper position would be one in which the spine was downwards, and the head lower than the pelvis, the body resting on the scapulae, and the pelvis elevated by an inclined plane. Such a position would be difficult to describe in a word analogous to “genu-pectoral”; it might be inconvenient at first, but the patient who once felt the relief it would afford her would be foolish to quarrel with it on grounds of æsthetic dislike.

In conclusion, I may point out that, although the “genu-pectoral” may be described as a posture, progression in this attitude is plainly impossible, without at least such mechanical aid as would be afforded by a small trolley on wheels placed beneath the breast.

Finally, that Nature, when man assumed an erect position, contemplated a possible return to the genu-manual, is rendered probable by the absence of hair from the two terminal phalanges of the fingers.

I am, &c., “FIAT REPOSITIO UTERI, RUAT CÆLUM.”

An Anxious Parent, Liverpool.—All inquiries with respect to recognised preliminary examinations should be addressed to the Registrar of the General Medical Council, 299, Oxford-street, London, W.

Brewster Sessions Items.—At the first licensing session at Rotherham since the creation of the Borough Commission of the Peace, held a few days since, the magistrates reduced the licences from seventy-seven to forty-five.—At Salford twenty-eight off licences have been refused.—At Merthyr Tydfil the magistrates made the announcement that it might be the duty of the Bench at the next licensing sessions to reduce the number of licences issued.—At Lincoln the magistrates refused to grant any new licences, on or off, but renewed the old licences, except where the holders had been convicted of misconducting the houses.

A Homœopathic Hospital for Diphtheria Patients, St. Petersburg.—The Emperor of Russia has ordered a hospital to be opened in St. Petersburg for diphtheria patients, where the homœopathic treatment only will be adopted. A matron and eight nurses have been sent by the Red Cross Society.

“Our Boys.”—An M.R.C.S. writes:—“I am a professional man with a good income, but I have a large family of daughters, and two sons. Knowing how precarious are the chances of success in any of the learned professions, I have just apprenticed my youngest son, aged sixteen years, to a builder. Of course, he has to work at the bench, and go out with the workmen ‘on jobs,’ but he is happy, and his time well employed. When he is twenty-one he will have become master of his trade, and, being a well-educated lad, and sharp to boot, a very few pounds would start him in one of the colonies, on the high road to competency. This is what I do with ‘our boys’—that is, for those who are handy with their tool-chest, and most English lads are. The silly pride of parents is the chief drawback to their sons’ success in life.”

Psychologist.—It was Defoe who, alluding to our mixed origin, in his “True-born Englishman,” says ironically:—

“With easy pains you may distinguish  
Your Roman, Saxon, Danish, Norm an-English.”

“When Analysts Differ.”—A baker, of Monkton, was charged before the Ramsgate magistrates with adulterating bread with alum. The proceedings were taken on the certificate of Mr. Adams, the county analyst, who certified that the sample submitted to him contained twelve grains of alum to a four-pound loaf. The defendant produced another certificate from Mr. Sidney Harvey, public analyst, Canterbury, who certified that the bread sent to him was “pure and un-alumed.” The third portion of the loaf taken by the officer was subsequently submitted to the Somerset House analysts, who pronounced that the bread was pure.

Spirit-drinking in India by European Soldiers.—A great decrease appears to have taken place, by the last published returns, in the consumption of strong drinks by the European soldiers in India, and there is a corresponding spread of sobriety among the rank and file of the army there. In 1877-78 the total consumption of rum among the British troops in India was 253,254 gallons, but in 1881-82 it fell to 141,801 gallons. In comparing the same years, as regards beer-drinking, the figures are respectively 76,942 and 74,747 hogsheads.



*Barber-Chirurgieon.*—Captain H. R. Skey, the Common Crier in the City of London, is a son of the late Mr. F. C. Skey, of St. Bartholomew's Hospital, who filled the office of President of the Royal College of Surgeons in 1863. The salary of Captain Skey is £325 per annum, that of Dr. Sedgwick Saunders £800, and that of Mr. W. Collingridge, Medical Officer of the Port, £500 per annum.

*Precautions against Fire: Netley Hospital.*—The Admiralty authorities, realising their responsibility in the protection of this institution against fire, have taken steps to provide an additional steam fire-engine, to be kept on the premises.

*Purchasing Spirits for Analysis: The New Pharmacy Bill.*—The Chemists and Druggists' Trade Association of Great Britain have held a special meeting at Birmingham, which was attended by representatives from London, Manchester, Leeds, Sheffield, Liverpool, Glasgow, Edinburgh, and other parts of the kingdom. *Inter alia*, a deputation was appointed to wait upon the Inland Revenue Board to urge the advisability of issuing an order making it compulsory on excise officers, when purchasing spirit for analysis, to leave with the seller a portion of the article purchased. It was also decided that chemists and druggists generally should be united in the support of a Pharmacy Bill before it was submitted to the Government or introduced into Parliament. It is proposed to arrange an interview between a deputation from the Association and the Council of the Pharmaceutical Society.

*A Workhouse Unfit for Habitation.*—The workhouse of the Bridge Union, Canterbury, appears to be, with the exception of the casual ward, totally unfit for use. The infirmary is low, narrow, and badly ventilated, and ought to have been condemned years ago. By an arrangement, which has been allowed to exist for nearly fifty years, the inmates, however old and infirm, have to pass from the day-rooms into the open air, and then to ascend a steep ladder, in order to reach the dormitories.

*Totally Inadequate Fines.*—Two builders have been called upon to answer before the Stratford Bench charges of infringing one of the by-laws of the Leyton Local Board. The by-law in question requires builders to give notice to the surveyor of the Board of the completion of each building, in order that he may inspect the premises and see that they are fit for habitation. This notice the defendants had failed to give. The drainage was not connected with the sewers in either case, and in one a tenant had been allowed to enter upon the premises and occupy them for some time while this serious defect existed. The surveyor, on inspecting the house, "found the sink and back yard saturated with stinking water, etc., most injurious to health"; and when the Local Authority come to connect the drains with the sewers, they will encounter an accumulation of sewage. With this evidence before them, the Bench imposed fines, respectively, of 50s. and 60s.

*Fitzjames.*—The Metropolitan Open Spaces Act, 1881, empowers vestries to take over burial-grounds, to lay them out as public gardens, and to make by-laws for their superintendence.

*How to Waste Food: Islington Workhouse School.*—The Islington Board of Guardians have held a discussion on an alleged waste of food in the workhouse school. In the course of this discussion, Dr. Cotton, the medical officer of the school, remarked that he had come to the conclusion that the bread allowed by the new table of diet was at least two ounces per child per day more than it should be, and the pudding four ounces too much. Dr. Willis (a guardian) stated there was another source of waste, and it was in the cook. "On one occasion when he visited the school with the chairman, after each child had been served there remained two whole puddings and a half, weighing together about 30 lbs. (!) On inquiring of the master what would be done with them, he was told they would be thrown into the dustbin. He contended that if the cook could not draw the line nearer than this, the sooner she was discharged the better. Eventually the subject was referred to the School Committee to take immediate steps to stop the waste.

*A Factory Surgeon.*—The statute passed in the last session extends the prohibition of paying of wages in public-houses to all workmen, and directs that no wages be paid to a workman at a public-house, beer-shop, or place for the sale of spirits, wine, cider, or other spirituous or fermented liquor, or any office, garden, or place belonging thereto, or occupied therewith. An exception is made as regards the workmen *bona fide* employed by the owner or occupier of a public-house. The maximum penalty for infringing the Act is £10. All labourers, servants in husbandry, journeymen, artificers, handicraftsmen, and all other persons, of whatever age, engaged in manual labour, are included in the Act.

*School Instruction, England and Wales.*—The report of the Committee of Council on Education shows that during the year the day-schools in England and Wales provided accommodation for 4,538,320 scholars, and had the names of 4,189,612 children on the registers, 35,444 certificated teachers being employed in their instruction. Cooking is taught in 347 schools, an increase of forty-eight on the year, and it is stated that "arrangements are being made in various parts of the country by school boards and voluntary associations for giving girls, in the last year of their stay at school, some practical instructions in this subject, a knowledge of which is so necessary for them in after life." This official recognition of the importance of the question is satisfactory.

*Sanitary Aid Committees.*—It is stated that in one quarter of London sanitary aid committees are being organised. It is pointed out that occupiers of tenement-houses usually endure all kinds of sanitary evils in their homes rather than complain to the landlord or local authorities, for fear of a notice to quit or an increase of the rent. A sanitary aid committee goes to them, and offers to make complaints for them to the local authorities without disclosing the names of the informants. It is urged that were such committees established in every town in the kingdom, one probable result of their action would be that the dwellings of the working classes would pass into the hands of a better class of landlords.

#### COMMUNICATIONS have been received from—

THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. F. LE GROS CLARK, F.R.S., London; Dr. WARD COUSINS, Portsmouth; Dr. MCKENDRICK, Glasgow; Mr. W. H. BENNETT, London; Messrs. FRANCIS and Co., London; Dr. SAUNDY, Birmingham; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. WATSON CHEYNE, London; Mr. TWEEDY, London; Dr. P. KAVANAGH, Brockley; Dr. W. DOMETT STONE, London; THE SECRETARY OF ST. MARY'S HOSPITAL MEDICAL SCHOOL, London; THE SECRETARY OF ST. JOHN'S HOUSE, London; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; THE SECRETARY OF THE STATISTICAL SOCIETY, London; THE SECRETARY OF KING'S COLLEGE, London; THE SECRETARY OF THE ROYAL ALBERT ASYLUM, Lancaster; Dr. NORRIS WOLFENDEN, London; THE SECRETARY OF UNIVERSITY COLLEGE HOSPITAL, London; Mr. J. CHATTO, London; Mr. T. M. STONE, London.

#### BOOKS, ETC., RECEIVED—

Sanitary Principles, by Surgeon S. J. Thomson, S.Sc.C. Camb., etc.—The Topographical Relations of the Female Pelvic Organs, by A. L. Ranney, A.M., M.D.—Interesting Cases in Private Practice, by Joseph H. Warren, A.M., M.D.—Massage, by Dr. Douglas Graham—Announcement of the Philadelphia Polyclinic—Annual Report of the Murray Royal Asylum, Perth—Complicirten Luxationen und deren Behandlung, von Dr. August Schreiber—De la Folie a Double Forme, par le Docteur Amb.-E. Mordret—La Medicacion Fósforo-Cálcica de Almera.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Dublin Journal of Medical Science—Dublin Evening Mail, September 15—Cambridge Chronicle and University Journal—Revue de Hygiène—Revue de Médecine—Revue de Chirurgie—South-Eastern Herald—Greenwich and Deptford Chronicle, September 21—Medical Record, New York—Australasian Medical Gazette—Students' Journal and Hospital Gazette.

### APPOINTMENTS FOR THE WEEK.

#### September 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### October 1. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

#### 2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

#### 3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Specimens will be shown by Dr. Mansell-Moullin, Dr. W. A. Duncan, and others. Papers: Dr. Swayne, "Gangrene of the Thigh during the Seventh Month of Pregnancy." Dr. Henry Bennet, "The Anatomy, Physiology, and Pathology of the Os Uteri Internum." Dr. E. S. Tait, "Observations on Puerperal Temperatures."

#### 4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

#### 5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.



## INAUGURAL ADDRESS

DELIVERED IN

## KING'S COLLEGE, LONDON,

On October 2, 1883.

By HENRY W. ACLAND, M.D., LL.D., F.R.S.,

Regius Professor of Medicine in the University of Oxford.

IN the year 1847 the first Professor of Surgery in King's College, in concluding the Hunterian Oration, thus addressed a highly critical audience in the theatre of the Royal College of Surgeons of England:—"By the institution and protection of seminaries of learning, in which is cultivated *Science* anterior to the Sciences, as the Sciences to the especial Professions, may we best insure the growth and increase of professions united in their attachment to all ancient institutions, and in all the hereditary loves, loyalties, and reverences that have ever been the precious birthright of an English gentleman—professions united with each other, and in union with the National Church."

Joseph Henry Green never addressed an audience which he did not hold bound as by a spell. He rarely addressed one which he did not convince by his logic. His biographer, one also of the ornaments and lights of King's College, relates that on this occasion the meeting showed signs of dissent. A feeble minority began to groan and to hiss. An overwhelming majority shouted applause, and for a moment discord seemed to be impending—when the orator, writes Mr. Simon, "by one stately movement of head and hand silenced the whole meeting so that a pinfall could have been heard, repeated his words with an emphasis so resolute and yet so conciliative that not one murmur resented them, and then, in language which might have been Plato's, concluded his sentence and oration, 'with the *National Church* . . . as the universal organ according to the Idea, for educating, harmonising, and applying all those elements of moral cultivation and intellectual progress, of which Religion prescribes the aim and sanctifies the use.' "(a)

The occasion of the distribution of prizes in a Medical School may scarce seem a fit occasion for recalling to mind this pregnant utterance, and this remarkable scene. But reflection will, I think, show the occasion to be not inapt, and of all Schools this the fittest.

The time is not come, nor can it ever come, when the distribution of prizes in a great Medical School can lose its interest for thoughtful men. There is something in the occupation of the student of Medicine which touches every well-constituted mind with singular force. In many vocations in life a certain self-interest, aiming at success, is the mainspring. Though this success depends generally, and ought always to depend, upon the right performance of duty undertaken, whether in profession or in trade, still self-interest is and will be the chief motive.

But in the life of a Student of Medicine this is not, or at least need not be, the case. There is no corner of human nature which he may not one day or other be destined to explore. He may perchance be fitted intellectually for the study of some one of the Sciences with which Medicine is connected, and may be devoted to it. His progress, in that case, is watched with interest only in reference to the Science in question. Competent observers note how much he adds to the mere knowledge of fact or of law in the world; and they estimate him accordingly. But in reference to the practical work of his future profession, men take measure of his whole character, as fitted by sympathy and singleness of purpose, as well as by scientific knowledge, to relieve the varied sufferings and sorrows of afflicted humanity.

What therefore is to be the true aim of those who seek to influence the medical education of the future should be made clear. Is it to fit average men exclusively or chiefly for amassing knowledge; or is it to make them fit to relieve the

sick and the suffering by every known means of knowledge, of goodness, of unselfish practical care?

Mr. Green, of whom personally I shall presently have more to say, told a great scientific and professional audience that the groundwork of professional education was a high general culture with scientific discipline, and that these two should be in union with Religion.

In King's College no uncertain sound on this matter has yet been given. King's College originally laid down certain principles to guide her destiny as a great seat of education. Were her principles right? Do they need revision? or change?

To these difficult questions I purpose, with much diffidence, to devote the short time at my disposal. Neither my brevity nor the limits of my insight can be the measure of the seriousness of the inquiry or of its necessity at the present hour.

Everywhere, as in the highest periodical literature, so in the less refined journals, there is a demand for secular, to the exclusion of religious, education. A protest, not less loud and strong, is made against such demand as illiberal and mistaken, and as injurious to the best interests of human society in the future. The demand and the protest are not confined to one country or one language. Wherever active thought and public life have fair play the discussion is carried on with warmth.

King's College was originally founded in the year 1829. It was laid down as "essential, to maintain indissolubly the connexion between sound religion and useful learning" (I quote the words) and, "in King's College, instruction in the doctrines and duties of Christianity, as taught by the Church of England, should be for ever combined with other branches of useful education." By an Act which received the Royal assent in May of last year, 1882, it was enacted that the "College shall continue as a body politic for the purpose of giving instruction in the various branches of Literature and Science, and the doctrines and duties of Christianity as the same are inculcated by the Church of England."

Into the history of the circumstances which led in 1829 to the adoption of this clause, or into any statement of the precise limitation of the doctrines which may be held with integrity within the pale of the Church of England, this certainly is not the time to enter. It is only to be noted that the energetic and devoted persons who founded this College, in what it is now the fashion to describe as a narrow, if not intolerant spirit, did so fully aware of the great social movements of the period—of Catholic Emancipation which took place in the same year, of the agitation whereby the extension of the suffrage was to be secured in 1832, and of the general tendency of the time to sweep away all so-called restrictions as fatal to the healthy growth of scientific knowledge and of political freedom.

In the midst of this general ferment, at a notable epoch of our constitutional history, the founders laid down that the educational system "was to comprise religious and moral instruction, classical learning, history, modern languages, mathematics, natural philosophy, medicine and surgery, chemistry, jurisprudence, etc., to be so conducted as to provide in the most efficient manner for the two great objects of education—the communication of general knowledge, and specific preparation for particular professions."

"General knowledge, and specific preparation for particular professions." What is general knowledge? and what is the specific preparation for the Profession of Medicine? Is it better that this preparation should be, in modern phraseology, wholly secular and physical; or should it be, as the founders of King's College provided, a mixed training, secular and religious?

I have neither the power nor, to-day, the time to thoroughly answer this question. But it is one that has to be met, and speedily. One of Bacon's prayers was that "human things may not prejudice such as are divine; neither that from the unlocking of the gates of sense, and the kindling of a natural light anything of incredulity, or intellectual night, may arise in our minds towards divine mysteries. But rather, that by our mind being thoroughly cleansed and purged from fancy and vanities, and yet subject and perfectly given up to divine oracles, there may be given unto Faith the things of Faith." This conflict between the things of Faith and the things of Sight is as old as Socrates. I am glad to think it is now as sturdy as ever.

(a) Simon, Life of Green, vol. i., page 44.



It is often assumed that the old culture of the Universities and the yearning for the Spiritual Life were to be swept away as relics of the dark ages, and that "useful knowledge" (this was the phrase) alone was the proper subject-matter for training a robust mind. But a reaction is setting in. Men begin to ask whether, after all, a great and noble life cannot be lived without endeavouring to provide that the largest mass of fact with which an educational artillerist has loaded the young instrument, shall, on a given day, be discharged.

"But the old simple life has passed away," it is said. I is only knowledge of things which is real in this world, though we are not quite sure what constitutes knowledge. All things cognisable are Material; behind Matter nothing is ascertained or ascertainable, though we are not quite sure yet whether Matter be, or be not. If there be aught else, then, to veil our ignorance as to what that is, we will call it *Force*. Of anything beyond in nature, of Will, human or superhuman, we know not, and therefore take no account. We are in an age of fact and a practical age. We trust our senses, untrustworthy as they are, and that which they can verify by experiment. Of all things else, of the "things of Faith," we so doubt, that we consider most of them to be Vanity, or Falsehood, and would dismiss them as poison from the youth of the future, who shall have none of them.

Doubtless, authority, if it override investigation, is of little worth. When we approach in our day a discussion as to the nature of Man, it is something to believe that we are, in the main, at one with Plato, with Aristotle, and with Galen—with Dante and Fra Angelico—with Linnaeus, with Newton, Galileo, Kepler, Herschel—with Butler and Kant, in whom the precise study and lifelong contemplation of the material world and of human nature produced the conviction, that as there is a finite Human Will, so there is, though known only by analogy, an Infinite Will, an absolute, superhuman, intellectual Power—the supreme idea of all perfectness, interwoven with all Good—to be inferred, wheresoever the feeble powers of the creature can scan the manifestation of the work, as of a Creator and Preserver.

"Yes," it is said, "but all these men whom you quote pertained to the days of ignorance. We, the true ancients of the world, have outlived their infancy; we have seen one by one the weakness of these men of the dawn exposed; and we at length have the true light. The poet of Israel was deceived when he sang, 'He counteth the number of the stars, and calleth them all by their names.' He did not perceive, as we now do, that not fewer than some 40,000,000 of suns are within the range of our scientific calculations. He did not see, as we now see, how fatal it is to the old faith that we have thus enlarged the conception of the contents of the physical universe. The few thousand stars, which, to the unassisted eye of the Arabian herdsman, seemed countless, were justly calculated to inspire him with awe. We who read the larger figure, we, who see or infer so many millions, can read, in the everlasting Law which pervades Infinity, the negation of Intelligence and Will. We who can now note the chemistry of the sun, as easily as Faraday read the flame of the rushlight, we see, by this our gained power, proof of the incompetence of a superhuman Power to create, to evolve, to preserve, with intelligence and will. We disbelieve what we do not understand. Faith in probabilities and in abstract good has perished with knowledge. In the days of man's infancy alone would an afflicted Seer cry out, 'Lo! these are parts of His ways; how small a portion is heard of Him!'"

But let some one reply "It is not so. You mistake the situation. It is not the *quantity*, but the *quality* of modern knowledge, which constitutes physical science. It is this *quality* which has wrought so great change in the interpretation of nature." Well then, let us ask ourselves more closely—What is the change in *quality* of knowledge, which parts off the ancient from the modern *Idea of the Universe*, and gives the latter the right to reject the conclusions of ancient simplicity?

Now, if we reject the notion that the *quantity* of acquired human knowledge is destructive of Faith in a Supreme Intelligence, and inquire into the bearing thereon of its *quality*, we have to consider what alteration in this respect of *quality* has taken place in modern times. The alteration appears to lie chiefly in two points—first, in the enlarged, rapid, and often unexpected application of scientific knowledge to the practical circumstances of common life—as, for

example, the use of chloroform derived from Chemistry, steam and electricity from Physics, and the biological relations of lower animal and vegetable forms to Medicine and Surgery. Amongst these, one illustration must suffice—one in which, through Wheatstone and Daniel, King's College has a special interest. When Franklin and Galvani made their experiments respectively into the currents of the thunder-cloud and the nerve-tissue of the frog, how little could their wildest imaginings realise the tremendous forces that were to minister as slaves of the every-day life of man.

The world at large, on the other hand, which profits by the results of purely scientific research, such as is scoffed at as useless, knows little of the intellectual labours which have been gone through to accomplish such results. Here also take one instance only. In any future great war this country will probably be protected as well as attacked by gigantic ironclads, armed with huge guns, some weighing 100 tons, which will be fired by the electric spark. Fixed torpedoes, a subtler foe, exploded automatically, will under certain circumstances bring sure destruction on the invader. These tremendous instruments will be watched by delicate electrical apparatus from forts upon the shore; their very movements being attentively noted by the ear, and their condition, below perhaps an angry sea, carefully noted through the telephone.

Now what observation has been here! what experiments devised by imagination succoured by science! what search after abstract truth! what induction of law! what application of mathematical method, of mechanical ingenuity, chemical science and skill, in relation to the inorganic world, to the kingdoms of life and organisation, to the arts of peace!—before this one strange power could thus be brought to bear on the protection of a nation, on the destruction of human life!

The mind becomes dazzled when it scans such results. Man seems, to the unreflecting, as if he were the creator of forces which he is but marshalling for his own ends. Yet man himself in his specialised nature may be none the greater for all these things. Many a heart in Cæsar's legions beat as true as ours, or thrilled as deeply with tribal desperation among the resisting Britons, near two thousand years ago—perhaps at the very spot where these fiery contests may one day rage.

Will anyone dare to say either that such applied science in itself raises or lowers all who personally profit by its conditions? Will he not rather admit at once that Cæsar or Alexander, Gustavus Adolphus or Napoleon, Clive, Henry Lawrence, or Havelock, or other great commanders who will wield the tremendous forces of future warfare, were what they were, or will be what they may be, despite of the scientific epoch in which they have been or may happen to be placed? that there is something outside and beyond the application of science to the arts of life, which helps him on towards his highest goal? that it is a delusion to suppose that the best faculties of man are or can be called out by his material surroundings alone, or by a knowledge of their nature? and that men feel, now as ever, a yearning for light and good which no material surroundings supply? As we dismissed the idea that the *quantity* of modern knowledge has altered the conception of the Idea of the Universe, and of its moral government, so we may reject the thought that this *quality* of practical utility in applied science has directly wrought any such result; though it may have so done by fostering luxury, frivolity, or love of ease.

It is, then, some other *quality*, if any, in knowledge or in science that has changed men's conception of the Universe.

This may be stated briefly because it is known to all. It is the conception or hypothesis that the whole material frame of the Universe is the outcome of necessary Law, and that this Law allows no room for any Power other than is necessarily inherent in Matter.

Volumes would be needed to record either the consequences which follow from this conviction, or a tithe of the arguments which have been written for or against it. Suffice it now to remark that many are from this dogma led to accept as proved that the evidence of Design in the Universe is manifestly false—that there is no analogy between the constitution and course of Nature (so-called) and Religion—that there is no evidence of the possibility that the individual human soul is guided by a Being whose highest attributes are infinite Goodness and Love—and that



there is no clear boundary line between Man and the "beasts that perish."

As I have now said, the arguments for or against this view of the Universe, sharply and absolutely fatal to Christianity, are so voluminous and so intricate as to be far beyond my power or my time now to summarise. But addressing my fellow-students as man to man, in the midst of the wordy strife, I may be allowed to say a few words of counsel and, I hope, of peace.

Men may accept that some sort of EVOLUTION of the present order of things is true; no one ought now to doubt. We may now all believe this earth was "without form and void"—that the land was divided from the waters—that life appeared in sentient and non-sentient forms—that original forms have both endured and have perished through ages uncounted and uncountable—that man appeared late, perhaps latest, on the planet—that our race has existed for a period far exceeding the mere suspicions of philosophers fifty years ago—that man is divisible into various races—that these races have many differences in respect of tendency to modification, of resistance to external conditions, of evolution towards the highest standard of intellectual gifts, of conviction of relations to a supreme Ruler of the Universe.

Further it has to be noted that in this century the precise investigation into the material condition of our planet, of our solar system, of the Universe, has brought fruit such as the giants of the race—as Aristotle, Galileo, Kepler, Newton, Haller—did not and could not foresee. Yet while allowing this we are bound, notwithstanding the modern telescope, spectroscope, microscope, and analytical and synthetical chemistry, to marvel at the knowledge and sagacity as well as the prudence and reserve of our forefathers, and our indebtedness to them.

All this admitted, one is forced to say, but in no dogmatic spirit, that many of the inferences of Materialists (I use the term as one of designation, not of criticism) are the result of too narrow data and too hasty generalisation. So, in past times, the faith of Religionists throughout the world's history has been often founded on ignorance and superstition, and has been supported as well by the credulity of the masses as by the evil passions of rulers. But are these sad pages in the history either of Religion or of Science to prejudice us against the one or the other? Can we not both seek with confidence further knowledge of the Universe which the present age lays bare for us, and also strive for the development of the spiritual yearning after the pure and the true, which, nearly 1900 years ago, was kindled in man by showing him his true relation to the Supreme Good.

It is no doubt more than probable (1) that from infinitely minute matter, widely diffused, were formed incandescent masses, of which our planet is among the least; (2) that they cooled into the condition in which, as far as we can judge, the life and sensation, whereof we are conscious in ourselves and infer in others, became as they exist now in man; (3) that successive changes occurred through myriads of years in these cooling masses before life appeared, have occurred since life appeared, and are occurring still—as witnessed the catastrophe in Java but the other day, an awful phenomenon which recalls pristine modes of local geological evolution; (4) that the evolution from inorganic to organic, and within the organic from the simpler to the higher forms, has been, upon the whole, progressive to a higher moral and intellectual type, with breaks, hindrances, cataclysms, variations, causes, of which many are unexplained, and many unknown; (5) that as yet there is no certain evidence from analogy or direct observation of the existence of similar or analogous life in worlds other than our own.

Many general considerations of a like kind might be added to these; but these, as they are here stated, seem sufficient to suggest certain lessons for us all:—the first, that the greatly extended knowledge of the physical universe gained in the last half-century is such as to require a revision of our interpretation thereof; secondly, that notwithstanding the marvellous discoveries in that time of geologists, physicists, and biologists, this knowledge is still fragmentary and incomplete; and thirdly, that the nature and growth of the spiritual life in man, as he has been since the revelation of Christianity, is little if at all affected by the consideration of the material steps by which the evolution of this planet, as a whole, has been carried on.

I will here add a very few words, in passing, specially for the student preparing for the medical profession.

Do not allow yourselves to be perplexed or dazzled by the controversies as to the relation between Physical Science and Religion. Of all discussions they are the most fruitless, unless we except purely metaphysical speculations. Scientific acquirement is the result of patient industry and careful self-education, not of controversy. Religion is the fruit of self-mastery and reverence, not of doubt and of wavering. The student of Medicine has, of all men, under conditions, the greatest opportunities, if he has received a good education before his hospital days, of forming a true judgment of the Nature of Things. There is no department of precise knowledge, whether of Physics, of Chemistry, of Biology, that is not open to him. All the fascination that the material world can display is his. His senses are open as many other men's are not. He sees daily in the facts before him the blessing of virtue, the evil of vice, the curses of ignorance. He notes in these at once the bane and the antidote. To him pure research and abstract science, as Pasteur and Lister have shown him, bring the rich fruit of applied and practical remedy. The all-embracing inquiries of Hunter and of the guardians of his treasure displayed in Lincoln's-inn-fields, satisfy both his craving for the highest biological truth as to the origin and evolution of things, and his desire to know the causes and laws of disease, of decay, and of death, and the mode of averting, healing, soothing the sufferings of mankind. To him all this is practical, and not mere work of the closet. His is a life of observation, of action, of experiment. These are to him not abstract questions only, they have a definite beneficent end. He cannot pursue in detail every branch of a growth so widespread as is his profession, but he learns enough to take interest for life in every advance of every science related to it. Through the more recent aims and newer modes of Biological inquiry, there is in Histology and Embryology a field of fact virtually without limit. In the last century discoveries in these directions were to be reckoned by hundreds or by thousands. It is far otherwise now. For instance, the species of living and extinct organisms now known (whatever species may mean) exceed half a million. The idea of Evolution has raised questions of the origin and development of all of these, and of their affinities and differences at every stage of their formation. The mode of investigation, as you are well aware, demands and obtains individual sections of perhaps a thousand to an inch in the same adult—nay, even, it may be, in the same embryo. The number which will be so examined cannot now be estimated. Individual organs will be in many cases similarly studied. The abnormalities of each, and the relations of the abnormalities in classes and races, will be alike tracked out and described, both in respect of their causes and of their laws, and in regard to the modes of their prevention. The more important of them all will be described by Photography, or by the Graver, in one or other of over five hundred journals of different nations. The prospect is boundless in the region of Morphology alone. I have not even hinted here at the abstruser relations of advancing Physiology, and the special directions in which it impinges on the domain of Mind on the one hand, and on the problems of inorganic science on the other, and the experiments it proposes in both. Though all these facts, advanced within these walls during the early days of Physiology in this country, by Todd, Bowman, and Beale, and on which I have so lightly touched as bearing on the evolution of our race, are allied to the daily work of the Medical Student, yet his main interest must centre in the sufferings of man and their alleviation; in the sufferings of the individual and of the race; in the prevention and alleviation of those sufferings in the individual, in rural and urban societies, in nations, in the world. From these neither Teachers nor Examiners nor his own tastes must draw him away. I could say much more, but I prefer to quote a passage from one of the greatest clinical teachers this metropolis has ever produced. This will tell you the temper in which you may best master your scientific studies and stand related to your fellow-men.

"Diseases are not abstractions; they are modes of acting, different from the natural and healthy modes—modes of disorganising, modes of suffering, and modes of dying; and there must be a living, moving, sentient body for all this.

"This body must be your study, and your continual care



—your active, willing, earnest care. Nothing must make you shrink from it. In its weakness and infirmities, in the dishonours of its corruption, you must still value it—still stay by it—to mark its hunger and thirst, its sleeping and waking, its heat and its cold; to hear its complaints, to register its groans.

“And is it possible to feel an interest in all this? Ay, indeed it is; a greater, far greater, interest than ever painter or sculptor took in the form and beauties of its health.

“Whence comes this interest? At first, perhaps, it seldom comes naturally: a mere sense of duty must engender it; and still, for awhile, a mere sense of duty must keep it alive. Presently, the quick, curious, restless spirit of science enlivens it; and then it becomes an excitement, and then a pleasure, and then the deliberate choice of the mind.

“When the interest of attending the sick has reached this point, there arises from it, or has already arisen, a ready discernment of diseases, and a skill in the use of remedies. And the skill may exalt the interest, and the interest may improve the skill, until, in process of time, experience forms the consummate practitioner.

“But does the interest of attending the sick necessarily stop here? The question may seem strange. If it has led to the readiest discernment and the highest skill, and formed the consummate practitioner, why need it go further?

“But what if humanity shall warm it? Then this interest, this excitement, this intellectual pleasure, is exalted into a principle, and invested with a moral motive, and passes into the heart. What if it be carried still further? What if religion should animate it? Why, then happy indeed is that man whose mind, whose moral nature, and whose spiritual being, are all harmoniously engaged in the daily business of his life; with whom the same act has become his own happiness, a dispensation of mercy to his fellow-creatures, and a worship of God.”

To these thoughts of Latham I would add no other words than these—that as Latham spoke and taught, so he lived and died.

It will have been noted that no attempt has now been made to give a definition as to what is to be included under the term “Religion,” or what is the method to be pursued in a religious as distinguished from a secular education. The disputes of Christendom alone have rendered it impossible to accept Religion and Theology as synonymous terms.

Unhappily for mankind, here as elsewhere, the Human element too often overshadows the Divine. The form is sometimes made to seem of more importance than the substance. Yet the essentials of the spiritual life are simple enough. They may be, and are, hard to teach and hard to attain. They are taught chiefly by example, which implies individual attainment. They are acquired by practice, which means individual self-sacrifice. They are summed up in the weighty words, *μετάνοια, πίστις ἀγάπη*. These gifts, we are told, are not self-originated,—having life, they are born of other life, *ὁ καρπὸς τοῦ πνεύματος*.

Any system of education which has not seriously brought before the student some considerations concerning the spiritual life thus faintly portrayed, has been, for him, faulty and inadequate, and is behind the Science of the day. Any scheme of the Universe condemns itself which leaves out of sight all that can be learnt of the character of a Heavenly Father from the study of the moral Nature of Man. No amount of acquirement in positive knowledge of physical science can remedy the deficiency incident to a wholly secular and materialistic education.

For reasons which I need not here relate, the Medical Council has abstained from entering upon this stormy topic in its recommendations on general education. Nor would I presume to-day to examine even in the briefest review the countless speculations which are variously designated Materialistic or Agnostic or the like. Modern literature teems with these. They are of singular diversity in respect of their force and their value. Some are the production of earnest, sober, patient seekers after truth. Some would seem to be the dialectic exercises of literature. Many impress the reader by their vagueness, many by their unwarranted assumptions, many by the inconclusiveness of their facts and of arguments. Some few rise to the height of pathetic and noble despair. Here and there one claims to serve as a guide to a higher earthly life, and is moved by a profound desire to lessen and to solace, if by any means,

the sorrows of mankind and the sufferings with which “the whole creation groaneth together until now.” Any attempt to describe these various kinds of thought would but waste your time, and bring us to no conclusion. I would, on the contrary, take the opportunity of saying a few words of profound respect and sympathy for all efforts which, under these circumstances, have been and are now made for improved secular and specialised instruction, whether literary, scientific, or technical, which are not in their aim and intention antagonistic or aggressive. The importing religion into scientific teaching is fraught with danger both to Religion and to precise knowledge. It seldom brings good to either. It exposes the teacher of Science to the risk of weakness and timidity. It disposes the half-informed Religionist to rely on broken reeds of material evidence, and not on the impregnable armour of Faith and Love. It seems to me that the day is come when each should support the other in the pursuit of his special vocation. The one should be encouraged in the fearless investigation of fact and cause and law in the material world; the other in the seeking to foster and comprehend the evolution of the spiritual life in the individual and the race. We seem to descry the dawn of a happier period. Already, God be thanked! many strong men, whether devoted by profession to the quest after physical truth or to the promotion of pure morality and the religious life, see that the love of specialising, however necessary, has its own dangers, and that the physicist and the religionist have each more hope of looking rightly upon the deep secret of the Universe by union and sympathy than by misunderstanding and discord.

In the life of more than one of the Professors of King's College, all this has been fully set forth to the world; but in the life of one especially—Frederick Denison Maurice. He had lived in Guy's Hospital among medical students philosophical and simple. He loved them, cared for them, understood them. To the poor and the sick he gave his powers, his life, his holiness. He studied human nature among all these. He came and did good work for years among you. For opinions deemed inconsistent with the dogmas of the Anglican Church you lost from among you the brightness of his character, contact with the profound depth of his solemn convictions, the sympathy of his loving nature. But he and Joseph Henry Green will stand out while English literature endures, as types of strong men who, having approached education from very different standpoints, came to the same conclusion.

Mr. Green, from the side of consummate knowledge of the material and spiritual organisation of man; of man as part of the animal creation; of man as the object of scientific, philosophical and æsthetic study; of suffering man, to be cared for by the highest skill and sympathy, through the advanced surgery of his time—tells you that the groundwork of education is to be found in the elements of moral cultivation and of intellectual progress, of which Religion prescribes the aim and sanctifies the use.

Mr. Maurice scanned with historical insight the light as well as the cloudland of metaphysical inquiry, from its dawn among the Greeks and Arabians to the mazy consummation of the most modern thought-painters. He read with wide sympathy the teaching, false or fair, of all the religions of the world. He tells the same tale, the result of a philosophic life in part spent, as I have said, in the walls of a great hospital, near the laboratory and the dissecting-room.

And lest, to some, these references to the philosophical biologist and surgeon and to the liberal divine may seem too narrow, to savour too much of the closet, too little of the world; lest you blame me for not referring to more great names from your own roll (and how many living and not living I might now name!), I will quote from the senior member of your own Council, himself a chief force in modern progress—the Prime Minister of England. To him we owe some exquisite lines, in which he, great master of modern speech, has translated into the ancient tongue of the Western Church words which express the result of his own strong keen scrutiny into the phenomena of human life, its aspirations and hopes, in their world-wide and world-long relations:

“Scis te lassum? scis languentem?  
Luctu contristaris?  
Audin’ ‘Veni veniensque  
Pace perfruaris.’”

\* \* \* \* \*



"Persistenter, perluctantem  
Certus est beare?  
Vates quisque, Martyr, Virgo,  
Angelus testare!"

You in this Institution, so steadily progressive in every department of human thought, for either sex, for all professions—you possess the heritage of these and many other great names. To you here, in this vast Metropolis, the centre of liberty, of progress, of science, the seat as of deepest suffering so too of warmest good-will to man, has been consigned by Parliament the precious national duty of maintaining the Unity of human thought, secular, scientific, and spiritual, to be the method and basis of the highest education.

Secular—all the Humanities, History, and Art.

Scientific—all organised knowledge based on observation, experiment, and induction in the Material World.

Spiritual—all that pertains to the higher nature of Man, and his relation, by faith, to Supreme Good.

And here I will end these few words on a great subject which affects all your young lives. Believe that no narrow distrust of Knowledge, no want of sympathy with the most unrestrained progress of Research, give any bias to my utterance. Believe rather that the deep conviction of my life is that the way to the true understanding of the Material world, to one part of which you address yourself in your Biological studies, is the way which has been trodden by great men from Aristotle to Faraday—a way in which Penetration has not cast out Reverence, and wherein human insight has seen in the far-off gloom the mystery of a Light which it counts to be Divine.

## INAUGURAL ADDRESS

DELIVERED IN

## UNIVERSITY COLLEGE, LONDON,

On October 1, 1883.

By JOHN TWEEDY, F.R.C.S.,

Professor of Ophthalmic Medicine and Surgery in University College.

GENTLEMEN,—As the spokesman, for the nonce, of the Medical Faculty of this College, my first duty is to give you all a hearty welcome; not less to you, old friends, who, mindful of the happy associations of former years, grace these proceedings by your presence, nor you who are the actual participators of our current labours, than to you, young scions of a hopeful race, who are, here and now, to be engrafted upon an ancient and honourable stock. It is, indeed, to celebrate your initiation into the medical profession that we are chiefly gathered together; and custom has prescribed, and good-fellowship enjoins, that the occasion should not be allowed to pass without our giving you the assurance that you have here friends to greet you, hands to help you, and willing hearts to serve you. Let me, then, congratulate you on the choice you have made of the profession of medicine as the sphere of your labours, and of this College as the place of your studies.

Whatever may have been the considerations which have led you to enter the medical profession—whether the accident of birth, social relationships and family ties, or the exercise of a deliberate choice—it is not likely that you and your friends have selected this College without some thought and inquiry. This circumstance might seem to render it unnecessary for me to attempt to add strength to your convictions; but I cannot forbear from dwelling upon some of the special advantages which I believe will accrue to you from studying in this place. No vindication is needed of the general scope and character of the education that University College affords. The continued and unvaried success of half a century is a sufficient testimony to its efficacy and

its worth. Scarcely a city, town, or village throughout the British Empire but cherishes one or more of her sons. They sit in seats of honour in high places; Royalty calls in their aid; the State avails itself of their knowledge and acumen; Science applauds their genius; Learned Societies award them enviable honours; and Schools of Learning accept their co-operation with delight. The practical sagacity and the true political insight of the founders of this College, the energy and enthusiasm of our predecessors, and the enlightened enterprise of our executive body, have furnished many of the elements of our success. Our museums, laboratories, class-rooms, and libraries afford facilities of observation, study, and research which in their entirety are unsurpassed by those of any medical college in the world. Our hospital has supplied the material of the public experience of some of the greatest teachers and practitioners of this age. It has been the scene of the clinical and scientific achievements of Elliotson, of Anthony Todd Thompson, of Robert Carswell, and of Samuel Cooper; and, among those happily still living, of C. J. B. Williams, of Walshe, of Jenner, and of Reynolds; of Richard Quain, of Erichsen, of Henry Thompson, and of Wharton Jones. Here, too, Liston performed those marvellous feats of surgical skill and daring that made him the wonder and delight of his contemporaries, the envy and despair of his successors. But it is not only in the practical departments of medicine and surgery that University College has been renowned. From this College and Hospital have emanated some of the most famous and permanent contributions to medical literature. The Encyclopædic Surgical Dictionary of Samuel Cooper, the classical treatise of Erichsen on the Science and Art of Surgery, that fund of clinical record blended with philosophical reflection in Walshe's works on Diseases of the Heart and the Lungs, and Quain's copious and authoritative Text-book of Anatomy, had their birth and have received most of their nurture within this fold. Nor have we been behind-hand in the higher departments of scientific thought and investigation. This College has, from its very foundation, been distinguished from most other medical schools by the plan and method of its studies. Its guiding principle has been to teach by great authorities, by specialists and experts in their particular departments of learning. This has given to its teaching a thoroughness, reality, and dignity that have enabled a large proportion of its pupils not only to excel as practitioners, but also to attain distinction as students of science. Nor have these results been casual or fortuitous; they have been, rather, the anticipated culmination of a sagacious and well-regulated system.

There is a collateral advantage, amounting almost to a privilege, which the medical student in this College may enjoy. This institution is not a medical school only; it is a large educational establishment, embracing also the Faculties of Science and Arts, and employing the services of men eminent in every department of thought. Its range of studies is therefore wide and encyclopædic, and exhibits many of the social and intellectual characteristics of a university. Though a student cannot, of course, pursue every subject that is open to him, even in his own Faculty, and still less in other Faculties, he cannot fail to be a gainer by living among those who represent the entire circle of knowledge. He breathes an intellectual air, and profits by traditions which are independent of particular teachers. Though the relationships between the students in the medical and other faculties have not always been so close and so harmonious as might have been wished, there are real and substantial benefits to be gained by a freer intercourse and a closer intercommunication. In the Faculties of Science, and of Arts and Law, you will find many earnest and anxious toilers after truth, who are doubtless destined to take high places among the thinkers and the workers of the immediate future; and it is to your intellectual and moral advantage, to say nothing of your social interest, to make the acquaintance of such, and to grow up in friendly communion with them.

Though I have given precedence to your connexion with University College, I would not have you suppose that I regard this as the permanent order of relative importance. While I wish you to cherish sentiments of affection and loyalty to this College, I am not so devoid of the sense of relativity as to place this institution in the forefront of your thoughts. It is Medicine, its aims and aspirations, that is to be the absorbing passion of your lives. You are to be



medical men first, and University College men afterwards. To this end it is necessary that you should have clear notions of what Medicine is, in order that you may comprehend its character, be faithful to its traditions, and zealous for its honour and advancement.

What, then, is Medicine? To most of you it may at present seem nothing more than the art of diagnosing disease and prescribing remedies. It is this; but it is something more. Medicine is essentially the science of health. So long as the idea of medicine was limited to the study and treatment of disease, its progress was slow and uncertain, and its place in the hierarchy of intellectual pursuits doubtful and ill-defined. Now, however, the medical profession would still retain the most important part of its duties, and all, or more than all, its present share of honours, if every drug in the Pharmacopœia were to become extinct. The credulous faith in the efficacy of drugs is, and always has been, the secret of the success of every form of charlatanism. Medicine, then, being not merely the art of healing, but the science of life in its organic relations, the duty of studying and investigating the phenomena and conditions of health becomes paramount. It was the recognition of this truth that raised Hippocrates and his school out of the region of mere empiricism. Before his time, medicine in Greece had been cultivated in the priestly schools of the Asclepiadæ, and had remained a mere technical craft, based upon hereditary experience. But Herodicus, who is said to have instructed Hippocrates in the use of gymnastics in the treatment of diseases, sought to fix the rules of a scientific promotion of health. Inquiry was instituted into the influence of various nutriments and ways of life, and thus was created a new art, which had reference, not to the treatment of particular diseases, but rather to the invigoration and preservation of the human organism as a whole. The efforts of Hippocrates and his followers were, however, rather to promote the health of individuals, whereas the aim of modern medicine is, in addition, to conserve and protect the health of communities. Imagine the condition of a large city like London, with four millions of persons congregated upon the comparatively small area of a hundred and twenty square miles, without the sanitary and other resources which medical science has bestowed upon civilisation. What a light has hygiene thrown upon the relations existing between the character of the soil, drainage, light, ventilation, food, water, clothing, and occupation, and the origin and spread of disease! Consumption, pneumonia, typhus and typhoid fevers, various epidemic and endemic diseases, malaria, dysentery, gout, and paralysis of many forms, are now known to depend upon preventable physical conditions. Small-pox, which up to the beginning of the present century inflicted such ravages, and even now makes frightful havoc upon unprotected communities, has been rendered practically eradicable by the means of vaccination. Cholera, as we have lately had experience, has not for us the terrors which it had for our fathers; its conditions have been ascertained, its secret discovered, and its malignancy disarmed. The experimental investigations of pathologists—and among them those of our Holme Professor of Clinical Medicine, Dr. Wilson Fox, have an honoured place,—aided by the beautiful microscopical researches of Koch, are elucidating the causes and origin of consumption, and have already kindled eager hopes of its effectual prevention.

The scope of medicine is therefore far-reaching, and, in order to comprehend the whole science of medicine in the sense just defined as the art of treating disease and the science of health, it is necessary to premise the study of the natural behaviour of living matter—that is, of physiology. Strange as it may appear to uninitiated minds, the grandest discovery and generalisation of modern medicine is that disease is healthy action gone wrong, or, as Mr. John Simon has described it, "Pathology consists in the science of life under other conditions than those of ideal perfection." Physiology is therefore the true foundation of medicine. This may seem heterodoxy to those who have been brought up under the influence of the older doctrine that anatomy is the basis of medicine. True, anatomy is indispensable to the study of physiology; but anatomy is notoriously incapable of solving the simplest biological problem. Dr. Daremberg, in his learned history of the medical sciences, has observed that an examination of the history of medicine shows that the fate of pathology is bound up, scientifically and historically, with the fate of physiology; and that anatomy has not only at

all times failed to reform physiology, but that ancient physiology, which was for the most part only a tissue of *à priori* speculations, has not unfrequently contributed to corrupt anatomy. Modern physiology has, however, amended itself by the experimental method, and henceforth is not likely either to miss its own way or to allow anatomy to go astray. On the contrary, it has opened up for anatomy new paths, and has, at the same time, furnished more solid basis of support for the reform of pathology. Do not mistake my meaning; I do not wish to say anything that can in the smallest degree be construed as depreciating the *absolute* value of anatomy. I merely protest that its *relative* rank needs to be readjusted. Anatomy is of primary importance to the study and practice of medicine; it is the very A B C, without which no real progress can be made. As without an acquaintance with the alphabet there can be no literary culture, so without anatomy there can be no medical attainments. Were it not for this; and for the help which a knowledge of topographical anatomy renders to the operating surgeon, the educational value of human anatomy, consisting as it does almost exclusively of the observation and remembrance of unrelated facts, would be extremely small, while its utility as a means of intellectual culture is absolutely *nil*. It is only when anatomy takes on a synthetic character, and becomes comparative in its method, that it first assumes the quality of a science. Nevertheless, anatomy is indispensable in a medical education, and to be of any service it must be almost exclusively practical. Now, practical anatomy means dissection, and this study is, to a beginner, revolting and disgusting. No man of nice feeling can at first take any pleasure in dissecting a human corpse. To remain unmoved in the presence of death indicates a callous rather than a courageous disposition. I envy not that man who enters a dissecting-room for the first time without an "inward horror." Men who have afterwards become enamoured of the anatomy, and acquired authority in it, have recorded their first repugnance to dissection. Aristotle, the founder of comparative anatomy, and who is said to have dissected as many as five hundred different kinds of animals with his own hands, expresses the repugnance that he felt at the sight of the primordia of the human body. Haller observes that the "nature of death impresses us with horror," and that "there is nothing sadder than a deadhouse." George Henry Lewes, distinguished alike as an anatomist, physiologist, and philosopher, has eloquently described the repugnance which human dissection creates, and the fascination by which it can alone be suppressed. "The fascination must," he says, "be strong, for the disgust is powerful. Our senses are affected by the sickening scent of a corrupting body, by the painful sight of blood-stained instruments, and the scattered shreds of a dismembered corpse. There is also a deeper moral disgust, peculiarly affecting to imaginative minds. The spectacle of death is always accompanied by a certain awe. At the bedside or on the battlefield no gazer remains unmoved; pity, and a sense of community in death, steal over every mind when unshaken by violent emotions. How much more painful the dissecting-room, where the corpse is untended by affection, and unpitied by strangers! none of the sanctity of death surrounds it; none of the tenderness of love watches over it; none of the ceremonials of respect defend it. There it lies, naked, and alien alike from affection and respect, flung upon the table in oblivious disregard of its having once been the temple of a human life. It is no longer that temple; it is not even a corpse; it has become a *subject*. Yet all these sources of repulsion have been, and daily are, overcome. Men sit patiently for many hours, inhaling the nauseous odours, exploring with their scalpel the winding intricacies of vein and nerve—steadfast, patient, victorious. They have suppressed the suggestions of the scene by firmly fixing their minds on the object of their task. It is not because their sensibilities have become obtuse, but because their power of abstraction has overcome the solicitations of suggestion. They have not become hardened; they have simply learned to concentrate their thoughts upon a definite pursuit. Were it not for this we might wonder that men did not consent to remain for ever unenlightened on the marvels of their organisation, rather than acquire the knowledge by so repulsive a route." But when the prejudice against it is finally overcome by the passion for knowledge, anatomy even intensifies the finer sensibilities of our nature. Bossuet, of whom it has been said, "he is not so much a man as a human nature with the temperance of a saint, the



justice of a bishop, the prudence of a doctor, and the might of a great spirit"—Bossuet, with all his delicate and tender sympathies for everything that was pure, noble, and refined, was not repelled from the study of anatomy, and even wrote a tractate upon it; and Goethe, though a practised anatomist, could not look upon the body of Schiller dead.

While anatomy furnishes the material substratum of physiology, there are other studies equally necessary in the investigation of the phenomena of living matter. Botany and chemistry are only second in importance to anatomy; and though it is the fashion nowadays to decry botany and to advocate its abolition from medical studies, I entertain a very strong opinion that in the whole range of natural science there is no subject so well adapted for initiating a student into the Inductive Method. It encourages observation, it affords the opportunities of generalisation, and, at a very small expenditure of time and money, enables the student to gain an insight, pure and experimental, into the operations of living matter. Standing, as it does, midway between the animal and vegetable worlds, botany, it has been observed, indicates their relation to each other, and at different points touches the confines of both. It throws great light on the functions of nutrition and on the laws of development; while, from the marked analogy between animals and vegetables, there is every reason to hope that its further progress, assisted by that of electricity, will prepare the way for a comprehensive theory of life, to which the resources of our knowledge are still unequal, but towards which the movements of modern science are manifestly tending. Botany, it is true, may not now be of the same technical value to the practitioner as formerly, but its educational value to the student has correspondingly increased. It will be an evil day for medicine when all its studies are regulated only by considerations of utility. This word "utility" is the bane of modern education. It is tending to eliminate all culture from scientific pursuits. It is an *ignis fatuus* that is leading us into a bog of stolid dullness. Those who cannot see any relation between a liberal education and the requirements of practical life are constantly clamouring for the substitution of technical instruction in the place of classical and literary studies. The pernicious influences of the doctrine of utilitarianism have not, perhaps, made such havoc in England as they have in America, but they threaten sooner or later to confound us. Over fifty years ago Longfellow raised an eloquent protest against the absorbing utilitarianism of the age. "With us," he says, "the spirit of the age is clamorous for utility; for visible, tangible utility; for bare, brawny, muscular utility. We would be roused to action by the voice of the populace and the sounds of the crowded mart, and not lulled asleep in shady idleness with poets' pastimes." We are swallowed up in schemes for gain, and engrossed in contrivances for bodily enjoyment, . . . as if this particle of dust were immortal, as if the soul needed no aliment, and the mind no raiment." We too often limit the application of the word *utility* to those acquisitions and pursuits which are of immediate and visible profit to ourselves and the community, regarding as comparatively or utterly useless many others which, though more remote in their effects and more imperceptible in their operation, are, notwithstanding, higher in their aim, wider in their influence, more certain in their results, and more intimately connected with the common weal. "The word 'utility,'" continues Longfellow, "has a wider signification than this; it embraces in its proper definition whatever contributes to our happiness, and thus includes many of those arts and sciences, many of those secret studies and solitary avocations, which are generally regarded as useless or as absolutely injurious to society. Not he alone does service to the State whose wisdom guides her councils at home, nor he whose voice asserts her dignity abroad. A thousand little rills springing up in the retired walks of life go to swell the rushing tide of national glory and prosperity; and whoever, in the solitude of his chamber, and by even a single effort of his mind, has added to the intellectual pre-eminence of his country, has not lived in vain, nor to himself alone." In the medical profession, the greatest and the best have usually been the most cultured and the least tainted by this spirit of utilitarianism. Hippocrates, Galen, Linacre, Boerhaave, Haller, Mead, Freind, Francis Adams, and Daremberg, were all scholars; and even among the men of the greatest practical skill, not a few have been

distinguished by their attainments in elegant and polite learning.

As to the way in which you are to pursue your studies, there is little for me to say. Of advice you have, no doubt, already had as much as you care for, and, despite any suggestions or recommendations I might make, you are more like to fall in with the traditions of the place, and with the practices of your fellows, than with any theories of mine. But take care that the traditions you follow are the best traditions. Do not forget that diligence and industry will make up for many intellectual imperfections. Remember, too, that your organisation is multiplex, and that you need to train your senses, your understanding, and your reason, and have all your faculties under the governance of a resolute and vigorous will. "All our knowledge," says Kant, "starts from the Senses, goes on from them to the Understanding, and ends with Reason, than which nothing higher is found in us, either to work up the material which we derive from the intuitions of sense, or to evolve the highest unity of thought." To be, then, useful and accomplished men, it is necessary for you to engage in those exercises which will train your external senses, cultivate your understanding, and refine and ennoble your reason. The medical curriculum embraces studies adapted to each and all these purposes. What they are and how they are to be pursued, I will not now stop to explain. But a caution is needed. There are two extremes to be avoided; both equally dangerous, though in different ways. Working too much is almost as bad as working too little; perhaps of the two the more grievous damage is done by excess. The idle and desultory student may, by resolute application, do something to redeem the follies of the past; but the student who, through misguided zeal or over-anxiety, or from fear, has lavished his strength too prodigally on his task, to the neglect of his physical well-being, may find too late his forces undermined and his energies consumed. Regulate, then, your hours of work, and study so that you may have ample leisure for the needs of recuperation, recreation, and refinement. Learn the secret of losing time rationally. Literature, music, the drama, the fine arts, and the society of persons of refined though simple tastes, afford abundant opportunities for instruction and amusement, and facilities for the best æsthetic culture. Outdoor exercises, as walking, riding, boating, cricket, and Volunteering—whether you enlist in the service of Mars or Hygeia, to shoulder the rifle or attend the ambulance—will invigorate your body, refresh your mind, and repair the damage your growing frame sustains in the noxious atmosphere of hospital, laboratory, and dissecting-room. These exercises, too, supply the only opportunities of witnessing and admiring the natural beauty of earth and sky and sea, the variegated hues of gem and flower; the painting of insect, bird, and beast; the brightness of sunshine, the iridescence of the rainbow, the rippling of the shallow stream, the sheen of still water, the flash and roar of storm and tempest. A memory plenished from the storehouse of poet and philosopher, artist and orator, novelist, historian, and divine; a mind that gives "to forms and images a breath and everlasting motion"; "an eye made quiet by the power of harmony and the deep power of joy," will soothe the tired brain, bring solace to the careworn heart, brace the unstrung nerves, and lighten the weary tread. Cultivate the habit of wishing to discover the Good and the Beautiful in all that meets and surrounds you; the disposition that

"Finds tongues in trees, books in the running brooks,  
Sermons in stones, and good in everything."

Gentlemen, no education should be exclusively technical or even intellectual, and certainly not that of a medical man. Hippocrates gave ethical dignity to medical practice. No one showed more respect than he for patients, more solicitude for their welfare, or at least for their solace and consolation. No one more than he admired useful discoveries, or took more trouble to perfect them. While maintaining a conscientious deference to all his upright professional brethren, he utterly repudiated those practitioners who were careful only for their fortune and reputation, making a parade of their knowledge and learning, humouring the prejudices of the vulgar, and ruling their own conduct by considerations of the profit which they were likely to receive. No one has ever had a nicer and more correct appreciation of the relations which should exist between medical men them-



selves, and between the medical practitioner and his patient and the public. Guy of Chauliac, who flourished in the middle of the fourteenth century, was equally exalted in his ideals. "A surgeon," he says, "should be learned, expert, ingenious, and well-mannered; he should be bold when sure, cautious in danger; kind to patients, gracious to colleagues, modest in giving an opinion; chaste, sober, pitiful, and merciful, and not greedy of gain." These are noble teachings, which each of us may follow, however haltingly and afar off. Whatever may be our ideals, they have only moral value when they amend our lives. Grave deep upon your hearts the moral maxims of the master mind of medicine, and of the illuminator of modern philosophy. "With purity and with holiness I will pass my life and practise my art," was the pledge demanded by Hippocrates of every novice of medicine; and, "Never act otherwise than so that you can will that your maxim should become a universal law," is the unsurpassable ethical dictum of Immanuel Kant. Inexperienced in the course of the world, incapable of being prepared for all its contingencies, ask yourself: Can I will that my principle of action shall be a universal law for the guidance of every other man? Be not deceived; the study and practice of medicine are not of themselves refining or ennobling to the natural man. Among those who are engaged in the treatment of disease are some of the meanest and cruellest of their race. Quacks and pretenders have been the pests of every age. What elevates and ennoble medicine is Science—that "fair, effusive ray" which Akenside, himself a distinguished physician, invoked as the guiding principle of his life:

"That last best effort of thy skill,  
To form the life and rule the will,  
Propitious power! impart:  
Teach me to cool my passion's fires,  
Make me the judge of my desires,  
The master of my heart.

"Raise me above the vulgar's breath,  
Pursuit of fortune, fear of death,  
And all in life that's mean:  
Still true to reason be my plan,  
Still let my actions speak the man,  
Through every various scene."

It is Knowledge that purifies our nature; it is Science that gives moral dignity and value to our calling. To a worldly-minded man, the rewards of medical labour are not worth the toil. The remuneration is not adequate to the anxious and arduous care of professional life; to the struggles against opposition, adversity, and disappointment; to the lack of honours, luxuries, and even comforts. But to a mind imbued with the modest and unselfish spirit of science, the rewards of a good conscience and of a sense of duty properly performed are sufficient. You, and all of us, are engaged in the pursuit of this science, and in a work of humanity and love. We are inheritors of a useful art, the heirs of a noble learning, the depositories of godlike knowledge. On our efforts, collectively and individually, will depend to a large degree the character and the influence of our art and our science during the coming generations. The way in which we discharge our duties and fulfil our obligations to the profession, to ourselves, and to the world, will influence for good or for evil medical and social life for years to come. Higher than mere earthly honours and earthly dignities, the reward we covet is that of being numbered among the true workers in science and searchers after truth—science that has revealed the mysteries of our organisation, eradicated superstition from our minds, extended wide the bounds of knowledge, and put back the limits of the unknown, abridged both space and time, strengthened our intellectual gaze till we almost pierce the veil of Eternity and realise the life beyond. Gentlemen, my task is nearly done. I have only to add my own good wishes to those of my colleagues for your health, happiness, and success.

**YELLOW-FEVER FUNGUS.**—Dr. Domingo Frère, of Rio Janeiro, the discoverer of the yellow-fever fungus, *Cryptococcus xanthogenicus*, has made the experiment of transferring this fungus into the system of animals by injection, and has obtained satisfactory confirmation of his theory. The inoculated animals, after a very short time, showed all the symptoms of yellow fever, and on dissection their blood was found to be full of the germs of *Cryptococcus xanthogenicus*.

## POPULAR AND RATIONAL THERAPEUTICS.

*Introductory Address at the London School of Medicine for Women, October 1, 1883.*

By H. DONKIN, M.B. Oxon., F.R.C.P.,

Joint Lecturer on Medicine at the above School; Physician to the Westminster Hospital and to the East London Hospital for Children.

ON the movement of which this school is the sign of success: I shall not address you to-day. It is now to be regarded as an accomplished fact, to be ascribed in a paramount degree to the doings and sayings and writings of the lady whom this institution is proud to own as its Dean, and its students fortunate to have before them as their best example. The continuance and extension of this movement will now depend mainly on the demand for the material supplied by such a school as this. It is to the credit of the public, and now at last to that of the medical profession at large, that prejudice on this question is no longer wide or deep enough to justify my detaining you now with an apology for ourselves or a crusade against opponents; and it may not be too much to hope that, with the favouring smile of Royalty upon you when the next International Medical Congress is held in London, you will no more be a cause of dissension amongst its councillors.

The subject I have chosen to speak upon to-day, though I have already touched on it elsewhere, on an occasion similar to this, is one which appeared to me especially suitable, and possibly useful, to the not wholly professional audience I have before me here.

The relation of patients to their doctors—the light in which they should regard them, and the demands they should make at their hands—is clearly a matter both of interest and importance. Not a few of the shortcomings and faults of the profession are due to the ignorance and misconceptions of the public as to the nature of the science and art of medicine; and charlatans flourish and abound on the joint results of the superstition, the indolence, and the obstinacy of men and women.

It is especially to the still wide-spread and deeply rooted fallacies concerning the nature and treatment of disease that I now call your attention, for these it is that constitute the main hindrance to that rational understanding between doctors and patients which ought to be the boast of this enlightened and scientific age. I would that the profession itself were entirely free from a tendency to cherish its fading mysteries; but for that happy time we must wait, and wait perhaps for long, until it be no longer true to say that the people wills to be deceived.

The chief fallacies to which I allude are, first, the assumption, tacit or expressed, that to have our diseases cured is a kind of right—that it is always and everywhere a reasonable thing to expect; and, secondly, that there is somewhere in nature a drug for almost every disease—a kind of pre-ordained or cut-and-dried remedy—if only the doctors could find it out. Yes, even in this age, when biological science is so widely heard of, and men's minds are searching out almost everything anew, the ignorance of the mass of the public as to the meaning and nature of disease remains profound, and the practical belief that nearly all our maladies ought to be cured by drugs is still held by most, and is strong enough to cause the evils which we deplore.

That the question of the possibility and the nature of the treatment of disease must always be of high importance to the human race is, of course, obvious. Such a possibility in some sort, too, is one of the chief *raison d'être* of the physician, though even without it his occupation would not be gone. That he has other valuable functions as well as those of the healer is now generally admitted, and need not be insisted on here. Concerning these, indeed, there would seem to be a better general understanding than as regards his position as one who tends or treats disease. A large debt is acknowledged by most enlightened people to the advancing study of the human body and its



conditions in health and disease, and physiology and pathology are more or less credited in the present day with providing us with a body of men who are able to give an increasingly certain opinion and forecast regarding many maladies, including some but little known before, or quite unrecognised amidst a confusion of undifferentiated signs and symptoms. But men naturally place the subject of treatment in a pre-eminent position, and even now, in the minds of most, the word "treatment" stands for the giving of drugs. Ignoring or disobeying the clear teachings of science as to health, which are the true medicine, we still persist in demanding from our doctors unreasonable and impossible methods of cure. We will not wash in Jordan; but, even *ad nauseam*, we will gladly swallow pills and potions: we prefer the doctor who says without hesitation that he can cure disease by drugs, rather than by the observation and following of nature's lessons. The truth that "prevention is better than cure" may be often on our lips, but in our hearts we are far from it, for we like to keep our cake and eat it too. Credulity and blind assumption seem very powerful here; tainting somewhat, too, our great profession, and causing some of us to remain among the shadows, or even wilfully to turn away from the light.

We must seek a little further for an explanation of this before going on to show that the progress of the sciences on which the art of medicine or the treatment of the body in health and disease depends, points in a direction widely separate from the method, heretofore so prominent, of the universal administration of heterogeneous materials known by the collective name of "drugs."

In the ages when observation had no place in the study of medicine, all treatment was rooted in some kind of superstition or assumption. Disease came from the hands of the gods: from them alone, or through their mediation with men, must come relief. In the earlier times, in fact, the professions of physic and divinity were one. And such is the strength of early impressions that the stamp of unquestioning faith in this very important and personal matter of the treatment of disease is still deeply marked on many minds. As an immediate outcome, perhaps, of the intimate alliance between theology and medicine, diseases were regarded as separate existences, to be exorcised or antagonised by spiritual means or charms. The search after causes had not begun: men took for granted what they saw, without analysis, and in indolence, impotence, and fear they readily assumed the interference of a higher power in everything that took place beyond their own. As time went on, this notion of the personality or independent nature of disease remained, though men sought further than charms for its relief. Disease was—and is, to the minds of many, now—an independent intruder into a body where it has no right to be, and requires to be met with an extraneous and antagonistic remedy. In this way arose the pernicious and gratuitous notion of the antidotal or specific treatment of disease—a rock on which so many good minds have been, at least partially, wrecked; so many impostors established themselves securely. On this foundation has been built up the creed of the drug-treatment of disease—not yet cast down, but beginning to totter to its fall under the slow but sure attacks of scientific method.

Intimately bound up with this view of the treatment of disease, it must be remembered, is the confusion of symptoms with disease processes, or the taking of effects for causes. Before analysis or the study of causes engaged men's minds in the matter of our maladies, symptoms alone could be the objects of attack; and through many years in the history of medicine we look in vain for true progress, while the study of symptoms and the search for specifics were predominant in the schools. A system such as this is at once in theory exploded when the search after causes begins. The treatment of symptoms was all that was possible before; but how small its scope, how constantly dangerous and blundering its method must be, is as obvious now as it is demonstrably unscientific, and therefore untrue. The search after the causes of disease, or looking behind its symptoms, mainly illustrated by the rise of the study of morbid anatomy, was the first valuable advance towards better treatment, and gave the shock which must one day end in the total discomfiture of any drug-theory of therapeutics whatever.

I may observe incidentally here that I am not decrying the treatment of symptoms, even by drugs, as always and everywhere foolish or useless. Experience, often of the most hap-

azard nature, has shown that a symptom may sometimes be relieved to the great advantage of the patient, although its nature and the working of its remedy may be alike obscure. Pain and other symptoms may sometimes be safely antagonised, even if their origin be not fully explained; and even amongst many blunders there may be some notable successes. But it is only the wilfully blind and unreasoning man who dares to argue from this towards a symptomatic system of treatment. On the occasional good results of such symptomatic treatment as this rests the success and immunity from disgrace so often enjoyed by ignoramuses and quacks in medicine. It is notorious that men speak more loudly of the triumphs of the homœopaths over colds in the head, and other maladies tending to rapid spontaneous recovery, than of their numerous errors of diagnosis; and blazon abroad the marvellous cure of a stiffened joint by a bone-setter, while many of his dupes, unnoticed by the public, are sacrificing irreparably injured limbs on the altar of his dangerously little knowledge.

The treatment of symptoms, then, however useful it may be in isolated instances, can never be satisfactory or final. This seems sufficiently obvious, though it is not yet practically admitted by the world at large, or by all those who call themselves Healers of Men. Sprung from its primitive soil of superstition, the belief, I repeat, is still rife among us, that we have a right to expect an antidote to every symptom, that every disease ought to be cured. Only perhaps when man's true place in nature shall be not merely taught, but realised, will this belief finally die, and be one of the signs of the last struggle of Sentiment for predominance over Thought. Diseases have been looked upon so long as a series of enemies to man (for whom all things were thought to be made), to be individually knocked down, that when we found we could remedy some of our maladies by certain means, as, for instance, by the administration of drugs, we falsely argued ourselves into a universal practice, if not a theory, of a drug-treatment for all diseases. This it is which, without any justification in nature or in logic, has been the bane of therapeutics for countless years. The public have suffered from it; and quacks rejoice in it. So obstinate is this gratuitous belief that there is a connexion in nature between disease and extraneous substances called drugs, that we find it cropping up where we should least expect it, and held, by implication at all events, by men who appreciate and follow scientific method in their investigations. It is not only the great delusion and imposture of Homœopathy, with its sublime neglect of Physiology and Pathology, that has owed its being to this superstition; traces of it we find as well in the exaggerated hopes of advance in Therapeutics along the line of a more scientific knowledge of the physiological action of drugs, held out to us by men whose investigations, taken by themselves, are worthy of all regard. I do not mean to undervalue the admirable work done by many by way of experiment with regard to the action of drugs on the healthy body, especially that of the vegetable poisons, nor do I deny that in some few instances it has led to more or less valuable therapeutic results. What I wish to make clear is, that had we even a complete knowledge of the action of every drug, past, present, and to come, in the Pharmacopœias of the World, we should probably be but little nearer to a scientific treatment of disease. And even if past experience, apart from theory, had given us good hopes of any wide success from the use of drugs, yet it is obvious that our knowledge of the causes and starting-points of morbid states must be equally profound with our knowledge of remedies—I had almost said, must be perfect—if we are safely to use our newly found weapons, and not continue to attack a symptom as if it were the disease itself.

Even though modern physiological research may give us definite means of modifying certain secretions and processes, or antagonising certain symptoms, by means of drugs introduced into the circulation, we must be very sure of the position, as links in the morbid chain, of the symptoms we attack, and have good reason to believe—a very difficult matter indeed—that the rest of the economy will not suffer by our interference, before we can hope to be anything more than blunderers in applying our so-called remedies to any complex case of disease as we see it. There are many symptoms of disease, inconvenient in themselves, which it is not always desirable to neutralise if we can. I cannot here enlarge upon this,—it is neither the time nor the place. That an



obvious symptom is always rightly attacked is the fallacy which underlies self-medication and most forms of quackery, and explains the harm that often results therefrom. And even those from whom one might hope better things are, in this day, found to gleefully hail as an advance in therapeutics some addition to the list of drugs which may control, say, the sweating in consumption, regardless of the fact that often the possible success of the drug means increased harm to the patient. Very valuable, then, as some of the results of the physiological study of drugs has been, and more valuable as we may hope they may still be, I would, nevertheless, urge that this is not the main line of advance in therapeutics which science points out to us; and that the most learned pharmacologist may be as blundering, and even dangerous, in his treatment of disease, as a ploughman would be in endeavouring to repair a chronometer. I hope I have made it clear that the so-called drug-treatment of disease has certainly a considerable basis of ignorance and assumption. And I would have you remember that it is in response to this credulity that most of the plagues of our profession have arisen, and that we hear and read so much of the puffing doctor and his intimate ally, the over-advertising chemist. "The incredible amount of quackery," says Mr. Baptist Crofts, in a most interesting article on the Relation of Drugs to Medicine, in the *British Quarterly Review* for July, "which flaunts in our faces wherever we turn, testifies more to a speculative weakness for medicine than to the necessities of disease. People laugh at it, satirise it, declaim against it, and fly to it for help in pain and sickness."

What, now, does modern pathology, or the study of the course and causes of disease, teach us touching the art of treatment, and in what direction does it point with respect to the use of drugs? The answer to this question alone, quite apart from *a priori* or historical views, can put the drug-treatment in its proper place, high or low. For it is clear that successful treatment of disease, if disease is to be modified at all, must depend on the extent and accuracy of our knowledge of morbid causes. It may be said, without fear of contradiction, that the whole course of modern science tends to discourage any prospect of a royal road to health by means of the systematic medication of disease. Disease is a complex term including many different notions and processes. Morbid anatomy has explained to us how impossible it is to check the changes and degenerations of various organs and tissues of the body, which are the accompaniments of important classes of disease, and has emphasised the lessons that our failures and constant searching after new remedies ought to have taught us long ago. One great dictum of Pathology, to quote the words of Dr. Creighton's recent suggestive address at the British Medical Association, is that "diseased states of the body are mainly modifications of healthy states—deviations from the beaten track, perturbations of the normal life, shortcomings of the physiological standard." In other words, Pathology may be looked upon as a chapter out of the great book of Biology. And so we must regard many diseases which afflict us, as part of the common lot—as accidents of development. Does not this show us that an intimate knowledge of the body in health, of its structure and functions, is the best approach to the study of disease, and that to guard, if possible, against the changes which may be called the beginnings of disease must be the right line on which to work. The progress of science in enlarging our knowledge of the processes of life has irresistibly altered the practice of Medicine which depends on it; and Medicine now more than ever, if a science at all, deserves to be called the Science of Health. The treatment of disease in the main must now become hygienic; it must be, as the *British Quarterly* reviewer says, "the adaptation and modification of the laws and conditions of life." To give even a *resumé* of the advances made in the treatment of disease, both preventive and curative, by the scientific or mainly hygienic method, time does not allow. Once more I would refer you to the admirable article I have just quoted. Great things have been done, and we may rightly hope for greater still. The value of the apparently simple therapeutics of air, warmth, diet, and exercise are but beginning to be appreciated. We have no reason to despair of advance in therapeutics as we give up the fanciful notion of specific treatment by drugs. We have been able to antagonise many maladies, in some cases with great success, as might have been expected, by the

rational application of natural means, such as special foods and atmospheric conditions, to certain morbid states with which by observation and experiment we have become better acquainted.

Nor must we forget how much we owe to the scientific method for helping us along the path of iconoclastic Therapeutics. The demolition of false theory and the abandonment of bad practice in medicine form perhaps not the least striking improvement that scientific knowledge is working. It may be humiliating to confess this, but it is at the same time encouraging. Theory after theory set up by our indolence and conceit has been exploded by observation and experiment, and the days of indiscriminate bleeding and wholesale drugging on the ground of a flimsy pathology have passed or are passing away. Day by day fewer patients are killed *secundum artem*. No better example can be given of this than the progress we have made in the treatment of fevers, and other so-called "acute" disorders. Though Sydenham, more than two centuries ago, saw and taught that what was called the "hot regimen" for fever patients was harmful, it is but lately, and since we have learnt more accurately from the use of the thermometer that an excessive rise of temperature is probably in itself a danger to life, that we allow our patients to be kept cool—to drink cold water when they are thirsty, and even in certain cases cool them down by art. Surely even what is sneeringly called by the druggist school (as though drugging were synonymous with doing in medical practice) our "masterly inactivity" in the present day, in many cases of disease whose course we know, is a great and positive improvement when we think of our dark doings in days gone by. Dr. Waters said recently, at Liverpool, that we may enumerate among the successes of medicine in the present day a large reduction in the mortality from pneumonia (or inflammation of the lung). Certainly we may; but he did not emphasise the fact that the mode of practice which, he says, has robbed the disease of much of its terror has been little else than letting it alone.

Have, then, drugs no place in the treatment of disease? you will ask. I would answer both No and Yes. In the common use of the term, drugs as a class, including many substances quite alien to the body, should be regarded as having no necessary relation to medicine. No one starting now *de novo* on the scientific study of disease would ever hit upon such a theory or dream such a fancy at all: no notion would exist of a series of pre-ordained remedies. It is obvious too that if the results we aim at in treatment can be attained without the insertion of alien substances into the body, it is better to do without them. At the best it is a blundering and artificial method. But in the course of so many years, when "treatment" has been almost synonymous with drugging, and medicine meant little else than a potion, many valuable discoveries have been made in the way of remedies. Of specifics we have, properly speaking, none. The quest of them is that of a will-o'-the-wisp. But there are many substances, both organic and inorganic, which, though generally as adjuncts to other treatment, we are thankful to use, and often should fare but ill without. Yet it may be said that most of our valuable pharmacopœial remedies (with a few notable exceptions) are those which enter more or less into the composition of the human body. The notable exceptions cannot be called strictly curative agents, and a knowledge of them has been arrived at for the most part in a purely accidental manner. For these we should, I think, be very thankful, and should rather feel surprise at our possession of them than disappointment at the smallness of their number.

Besides the administration of those substances which can be scientifically explained, and those few others for whose beneficial influence there is merely a vast amount of direct evidence, I must mention one other justification for drugging, which some day may perhaps disappear. The treatment of many maladies, especially those called functional, must include the regard of what we call the mind as well as what we strictly term the body. Belief in drugs, as strong as it is indefinite, still exists in many of our patients. It is absolutely necessary for their cure in some cases to give, or appear to give them something that they call medicine. Some may be educated to do without it—their number will doubtless increase; but we must treat the individual while waiting for the improvement of the race. It would indeed be to many here a startling revelation if some of our physicians of real "light and leading," and free from all



taint of quackery, were to publish, as they well might at the close of their active work, an approximate statement of the proportion of mere placebos among the prescriptions they have written.

It is constantly thrown in the teeth of the scientific physician, who wants a reason why, before he gives a drug, that he belongs to a school of men who do nothing for their patients. This is a superficial, false, but often damaging charge, brought by the "believers in drugs," as they call themselves, against their more thoughtful brethren. But it seems clear that the doctor who wants a reason for what he does need be none the less likely to use a remedy which may reasonably be supposed to be beneficial than he who has a tendency to run after every new thing, and he will certainly be less likely to do his patients harm. Often, indeed, the practice of the best men in these two very opposite schools is not so very different; but none the less is the difference of their mental attitude a fundamental one, and must in certain cases lead to directly divergent modes of treatment. There is a danger, indeed, of some of the followers of the so-called sceptical school becoming indolent, but there is the far greater danger of the credulous dogmatist becoming fussy and interfering; and, beyond this, there is ever the temptation present to the dogmatist of overstepping the lines of soberness, and becoming, perhaps unconsciously, a quack. The "sceptic," again, is not likely to forget to give a prescription, whether really necessary or not—the patient will see to that; but the doctor, dogmatic in drugs, will often forget to impress upon the patient the hygienic dicta that his Science should have taught him.

The new direction given to inquiry by the discovery of micro-organisms in relation to disease may perhaps, by placing certain diseases in a category definitely due to external causes, give us some hope of antagonising them by drugs. We can already do much, by the direct application of certain substances, in the way of destroying parasites, both animal and vegetable, and it may conceivably be possible hereafter to attack the minuter enemies of man in their homes in his blood and tissues. But the question of the part played by germs in the production of specific disease is not yet settled; and it has even been suggested that these maladies are but the results, by long evolution, of altered normal processes and departures from the physiological standard. Be this as it may, however, it is rather to processes akin to vaccination than to antidotal medication that we have to look for the best protection against these diseases.

There is no reason why the heart of physician or patient should faint when the voice of Science is heard saying that the cure of disease is very often impossible, and that many drugs have nearly had their day and ceased to be. If we at last know that we can but rarely cure disease, we can treat it far better than of old. We know more about diseases; we must be able to avert, and tend or treat them better, if any such action be possible. Better practice should follow on fuller knowledge; and I would point to two undertakings of the present time which give us much hope of both for the future, and should meet with the support and encouragement of all interested in medicine. I allude to the Association for the Advancement of Medicine by Research, with especial reference to Experimental Physiology, and to the no less important Collective Investigation Committee of the British Medical Association, from which we hope for great things respecting the natural history of disease.

Doubtless in the present state of our knowledge we are glad to catch at anything that may relieve our pains and mitigate our many sufferings, and we doctors should be thankful that we can do much in this direction; but "if it be true," as Mr. Crofts says, "that the artificial treatment of disease by drugs is a necessity of our civilisation, it is surely one of its 'barbarisms' which a higher development will gradually abolish. If the use of drugs is practically inevitable in the life of our day, so much the worse for our life. Amend the life according to biological laws, repent of physiological transgressions, and throw physic to the dogs, is the monition of the best medicine of to-day." Thus I believe will Therapeutics increase, but Drugs will decrease. And if it be said that the treatment of disease as indicated by Science is disappointingly simple, I would read to you, in conclusion, what Sydenham said so long ago: "If anyone objects that in some things I have not only renounced the Poms of Medicine, but have proposed such Remedies as are

scarcely reducible to the *Materia Medica*, so simple and inartificial are they: in this I suppose I shall only displease unthinking People; for the Wise know that all things are good that are useful, and that Hippocrates when he proposed the use of Bellows in the *Iliac Passion*, and nothing for a Cancer, and the like (which may be seen almost in every page of his Writings), deserved as well for his Medical Art as if he had filled all with pompous Forms of Remedies."

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### GUY'S HOSPITAL.

#### VAGINITIS—SOFTENING OF BOTH HEMISPHERES OF THE BRAIN—THROMBOSIS OF LEFT COMMON CAROTID AND INTERNAL CAROTID ARTERIES —EMBOLISM OF MIDDLE CEREBRAL ARTERY— THROMBOSIS OF LEFT COMMON ILIAC VEIN— DEATH.

(Under the care of Dr. HILTON FAGGE and Dr. F. TAYLOR.)

[Reported by Mr. F. EASTES and Mr. A. SCOTT.]

EMMA G., aged eighteen, was admitted into Guy's Hospital on March 18, 1883, under Dr. Fagge's care, and subsequently passed under the care of Dr. Taylor.

*Family History.*—Her father died of consumption at the age of forty-seven. Her mother suffers from chronic bronchitis. She is one of ten children, all of whom are living. There is no history of cancer, syphilis, or rheumatic fever in the family.

*Personal History.*—She had measles when a child; has always been delicate, but very bright and lively; and has neither had rheumatic fever, nor scarlatina, nor any injury to the head, nor discharge from the ear or nose, nor earache.

*Present Illness.*—She left her place in service three months ago, and has been at home since, because she felt weak and out of sorts. During this period she has not been nearly so bright as she used to be, and has not talked much. She remained in this condition until March 13, when she felt very ill, had a severe headache, and vomited. Then she became unconscious, and had convulsions of the right arm and leg only, the face being drawn to the left, and the left eyeball, according to the mother's account, deviating to the left. She did not scream. The convulsions lasted two minutes, and on recovery she had right hemiplegia and speechlessness. Since then she has not uttered a sound, nor moved the right arm or leg. She has been very drowsy and stupid, and has understood but little. For two or three days before the fit she had complained of the right arm being cold, and her mother felt it and ascertained that it really was colder than the left. Her urine has been passed into the bed, and on the 14th she also passed motions into the bed.

*On Admission.*—She is a fairly well-developed girl; looks older than her age; pale, with a slight flush on each cheek. She lies quietly, sometimes on the back, sometimes on the right side, rarely on the left. She cannot move the right arm or leg; the mouth is drawn over to the left side, and she cannot shut the right eye so forcibly as the left. When told to shut her eyes tightly she only stares, and she takes scarcely any notice of questions and directions; but the relative power of the palpebral muscles was finally estimated from their behaviour during ophthalmoscopic examination. She appears to have some idea of how many fingers may be shown her, but she often holds up a wrong number, and seems to be trying to think of it, and then lets her hand (the left) drop, and seems to give up the effort. When she attempted to write with the left hand an answer to any question, she made a meaningless scrawl, and then dropped the pencil and uttered a dissatisfied grunt—the first sound she had made since admission, twelve hours previously. When asked to put out her tongue, she only opens her mouth, and the tongue remains within the teeth. On laughing, the left corner of the mouth is drawn very far back, the right side remaining blank, and the tip of the tongue is then often moved towards the left angle, but does not protrude. There is partial anæsthesia of the right half of the body and the right limbs. Plantar reflex is good on



the left side, slight on the right. Patellar reflex is a little more than usual on both sides; no ankle-clonus. Epigastric reflex good on the left, slight on the right side. The optic discs are slightly pinker than usual. There is no pain and no wasting of any muscles. The bladder is distended, and the urine runs away. The heart's beat is somewhat forcible, in the fifth space, one inch within the nipple; no murmurs. Pulse 100, full, soft, compressible; regular. Chest appears quite normal. No cough. Urine acid; specific gravity 1020; no albumen; no sugar; abundant deposit of urates. The catamenia were present, but scanty, from March 3 to March 10. Tongue brown, furred; sordes on teeth and lips. Takes milk well; no vomiting. Abdomen normal. Ordered ten grains of iodide of potassium in camphor-water every four hours; milk diet; water-bed. Urine to be drawn off thrice daily.

March 19.—Has not spoken since admission, nor has she nodded or shaken the head in answer. Two or three times has made sounds expressing disapproval.

20th.—This morning said "No" to the nurse. Dr. Fagge considers the heart perfectly normal, and thinks there is slight optic neuritis on both sides.

23rd.—Slightly more movement of right leg on irritation by tickling or pricking. Bowels not opened since admission. Ordered three grains of calomel and a soap enema, which resulted in a copious evacuation.

24th.—Slight voluntary movement of right leg. Occasionally says "No" when asked questions. Puts the tongue fairly out, the tip turning slightly to the right. Seems happy, and frequently laughs at her attempts to speak.

26th.—Passed urine voluntarily.

27th.—Can move the right leg more freely; looks more intelligent, and answers "No" to everything, but differently when she means "Yes." Makes several attempts to say other things, but without result, and equally fails in the use of gesture.

28th.—Temperature 98.2°; pulse 80; respirations 18.

On the day of admission the temperature was 100.2°, but for the next week it was between 98° and 99°; the pulse mostly between 80 and 95. With the transfer of the clinical wards at the end of the month, she came under Dr. Taylor's care.

On April 2 a change took place. At 8.30 a.m. she had a fit, in which she became quite unconscious, and was convulsed. She rolled about in bed, kicking, moaning, and crying, with frothy saliva running from the mouth. She continued so for some hours, taking no notice when spoken to, so that she would not open her mouth, or put out her tongue, or take any food whatever. In this condition, ankle-clonus was well marked on the right side, and present, but less pronounced, on the left. Plantar reflex was good, and patellar reflex excessive, resulting in clonus on the right side.

April 4.—The condition has continued the same. She usually lies quite quietly on her back, taking no notice, the eyes open, and staring vacantly before her. From time to time she sobs and moans, and moves the legs about. Ankle and knee clonus are still present. The urine is of orange colour, of specific gravity 1015, depositing lithates, free from albumen and sugar.

5th.—Patient still unconscious; the breathing stertorous, and usually very rapid. Deviation of head and eyes to left side. Ankle-clonus and patellar reflex now scarcely perceptible, and abdominal reflexes absent. Morning temperature 98.4°; evening temperature 99.6°.

6th.—Morning temperature 99°; evening temperature 102.4°; pulse 120.

7th.—Slightly more conscious. Follows moving objects with her eyes, but makes no response to questions; will not put out her tongue, nor swallow any food. Respiration is entirely costal, the anterior abdominal wall being retracted with each respiration. The optic discs were rather more generally red than normal, and perhaps the edge was a little blurred. Dr. Taylor thought the change did not amount to evidence of optic neuritis. Temperature 103° in the morning; 107° in the evening. Nutrient enemata, many of which are not retained.

8th.—Morning temperature 98.4°; evening temperature 99.2°.

9th.—Morning temperature 99.4°; evening temperature 102.4°.

10th.—Decidedly more conscious. Took hold of one's stetho-

scope with the left hand, and tried to pull it away. Slight patellar reflex on the right side. Morning temperature 101°; evening temperature 101.4°; pulse 140 to 160.

11th.—Uses the left arm much more freely, putting the hand to the mouth and eye, and interfering with the thermometer or stethoscope when used. She now passes nearly all the enemata with her motions. To-day she is fed with a nasal tube. Some milk was placed in her mouth, but she did not make any effort to swallow it, and it ran out. There is well-marked *tache cérébrale* on the abdomen. Morning temperature 99°; evening temperature 101°.

12th.—Is fed partly by the nasal tube, partly by enemata. The pulse and circulation have been getting more and more feeble. Yesterday the right foot was cold and blue; to-day both right leg and right hand are cold and mottled with purple. Pulse 120; respirations 52; temperature 101.8°. Death at 5 p.m.

The following is Dr. Mahomed's account of the *Post-mortem Examination* made by him twenty-one hours after death:—Body rather spare. Cranial bones not diseased, but calvaria very thin and translucent along each side of the median line. Dura mater and sinuses normal. No disease of petrous bone. A considerable increase of the cerebro-spinal fluid, but no signs of meningitis and no tubercle. No discharge from the ears. The brain weighed forty-eight ounces. The left temporo-sphenoidal lobe and the convolutions above the Sylvian fissure and at the base of the fissure of Rolando felt soft, and on exposing the centrum ovale majus on the left side, the grey matter of the convolutions was softened in an irregular manner, especially that of the parietal convolutions, while the frontal were but little affected. At a lower level the parietal convolutions were quite broken down and diffuent, and the white matter was invaded. Transverse sections were now made through the basal ganglia. These showed a patch of softening in the white and grey matter of the anterior frontal convolutions, and from this point a large area of softening passed backwards below the level of the roof of the lateral ventricle in the cerebral hemisphere. The temporo-sphenoidal lobes, the island of Reil, and the lower part of the ascending parietal convolution were almost diffuent, and the softening extended inwards through white matter to reach and involve the posterior part of the extra-ventricular nucleus of the corpus striatum. Other parts of the central ganglia on this side escaped, but the only convolutions free were the occipital. On the right side the convolutions were healthy, except the island of Reil, where a patch of softening commenced, involving the claustrum, external capsule, and the outer half of the lenticular nucleus, where there was a highly vascular, almost hæmorrhagic patch, surrounded by yellow softening. Farther back the softening was confined to this area. The ventricles were not distended, and contained only a small quantity of fluid. The arteries of the left side connected with the brain itself were perfectly healthy and free from clot, but, on examining the internal base of the skull, the left internal carotid was found to be firmly occluded with ante-mortem clot. The clot had obviously been divided in removing the brain, and that in the distal portion of the vessel connected with the brain had fallen out. The internal carotid through its whole extent was full of clot, which extended down the common carotid, and appeared to reach as far as the aorta. The clot was firm, dry, and laminated, slightly adherent to the vessel-wall, and very clearly of some considerable age. In some places the centre was softened. Several branches of the external carotid were examined, and found to be free from clot. On the right side the middle cerebral artery at one-eighth of an inch from its origin was completely occluded by a firm ante-mortem clot. The heart weighed seven ounces, and was quite normal. The valves were perfectly healthy, and there were no relics of clot in the auricles, such as might have given origin to emboli. Both the lungs were somewhat œdematous, but otherwise healthy, and there were some old pleural adhesions at the back of the left lung. The larger bronchi were somewhat congested, and contained some blood-stained, frothy secretion. There were yellow caseous glands below the bifurcation of the trachea, and some extended upwards and along the trachea to the neck. Liver forty-one ounces, healthy. Spleen three ounces and a half. Stomach: Diffused emphysema beneath the mucous membrane, probably post-mortem; the lower part of the ileum hyperæmic, otherwise normal; supra-renal capsules and kidneys healthy, the



latter weighing eight ounces. There were a few ecchymoses of the mucous membrane of the bladder. The vagina was very hyperæmic; the upper part was coated with muco-pus, below which there was intense hyperæmia—apparently a gonorrhœa. The purulent discharge continued on to the os uteri, but ceased within the lip; and the cervix contained a jelly-like mucus. The vulva was examined after removal of the vagina: it was difficult to speak with certainty of the condition of the hymen; the fourchette and a thin membrane in front of it were intact, and the ostium was of fair size. Attached to a fold of the broad ligament, half an inch from the extremity of the Fallopian tube on each side, were two delicate bands one inch and five-eighths long, from which two little cysts were suspended, three-eighths of an inch in diameter. These were perfectly symmetrical. The left common iliac vein contained a large thrombus, one inch long, filling it just below the point of bifurcation. It was pale and corrugated on the surface. The remainder of the vessel and the femoral vein were filled with recent black clot.

*Remarks (by Dr. Taylor).—*The above case is interesting in many particulars. The symptoms which first appeared would have been readily explained by embolism of the left middle cerebral artery; but the absence of any source of an embolus, the freedom from rheumatism or chorea, and the healthy condition of the heart, raised a difficulty, and led one to consider if other pathological conditions might not be present. Even after death it was not clear to what the embolism and thrombosis were due, for the heart was quite normal, and the only thing that could be suggested as a factor was the extensive vaginitis, which was not known to exist during life. Serious alterations of the blood are possible in connexion with suppuration; and pyæmia and ulcerative endocarditis have resulted from gonorrhœa in the male; while the liability to thrombosis in the puerperal state is well known. It therefore seems probable that the vaginitis was the cause of an alteration of the blood, which led to its coagulation in the vessels. It will be seen that in the history of her illness nothing was said of any trouble about the generative organs, but for some time previous to the cerebral attack she had been unwell, and it may be suggested that her malaise and mental depression were caused by the existence of this local trouble. Such extensive clotting of blood in the carotid artery is very unusual, but it does not appear to have led to any special symptoms during life, such as local pain, beyond those due to the obstruction to the cerebral circulation. The vessel was not specially examined with the finger, and though the discovery of an absence of pulsation would have assisted the diagnosis, one can scarcely expect that this condition will be frequently enough present to make a systematic examination of the carotids of great value in diagnosis. As to the course of the symptoms, the lesion on the left side of the brain must have arisen first, and led to the right hemiplegia and aphasia; and the fit of April 2 was, no doubt, caused by the implication of the right side of the brain. Though there was such extensive softening, it is noticeable to what a small extent the motor centres and tracts were involved; and it is no doubt to this that we must ascribe the great improvement in the use of the right arm and leg previous to the second attack, and the persistence of power in the left limbs to the end. No special examination was made for a local cause for the paralysis of the diaphragm.

**YELLOW FEVER IN MEXICO.**—Yellow fever has been causing fearful ravages at Guaymas, in Mexico. According to a despatch dated September 17, the inhabitants were fleeing from the country, and the city was a veritable city of the dead. Medical assistance was being recruited from all parts. The burying of the victims of the outbreak was left almost entirely to hired Indians, and it was feared that many of the persons attacked had been removed to the place of interment before they were actually dead, as it was believed that the Indians could not discriminate between the comatose state which the patients are invariably in when the favourable turning-point has arrived, and death itself. Yellow fever was also reported to be raging at other adjacent places. It was said the ravages of the disease at Mazatlan were even greater than at Guaymas. All the people who could walk or crawl made their way to the mountains, taking with them their bedding and whatever food they could pack.

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Medical Times and Gazette.

SATURDAY, OCTOBER 6, 1883.

SPEECH-DAY.

THE witty author of "John Bull et son Ile," astonished, like other foreigners, at the survival of the old-world pageantry of the Lord Mayor's Show, concludes, with a truly French audacity, that the English have a special affection for their ancient customs. That may, perhaps, be true of the upper and lower crusts of society, with their Court ceremonials and Foresters' fêtes, but it is not true of the great middle-class, whose cold puritanism has for so many generations thrown its shadow over the once rich and joyous English life. Of them it may be said with truth, that if they have any love for ancient custom, it is only after their iconoclastic hands have stripped it of every vestige of pomp and circumstance. But with the rise of the lower classes into influence, and the consequent craving for a more emotional life, the pendulum is beginning to swing back, and, instead of denouncing all pageantry and the feelings it excites as childish things which we are old enough to have put away, many are inclined to admit that we may have dismantled the nursery too soon, and that toys may still have their uses even for a nation so advanced in years as our own. It cannot be that the ordered pomp and dignified ceremony, which almost all known nations and tribes of earth have with one accord religiously preserved, have no appropriateness for us, or that we, with our still large proportion of uncivilised citizens, can afford to think lightly of the loyalty and enthusiasm which their impressiveness may arouse or strengthen. Kept within due bounds, the magnetic emotion induced in masses of men met together with one common object must have its uses as well as its delights; and the science of the day, by revealing the closeness of the tie that binds us to men of other ages and other climes, should give pause to our arrogant assumption of superiority, and warn us that we have possibly been too hasty in discarding time-honoured and once widely valued means of moral edification.

One pretence to ceremonial observance, and one only, does



the medical profession in its collective capacity retain, namely, the introductory addresses at the medical schools. And, with the above general remarks in view, it may be worth asking whether it might not have been better for the self-respect and solidarity of the profession if, instead of studiously minimising the formality of our opening ceremonial, or, with a confessed inability to cope with students' riotousness, converting it into a nondescript evening entertainment with a foreign name, an opposite policy had been pursued, and every effort been made to increase its impressiveness by a calculated addition of dignity and circumstance. That some doubt of this nature has been already felt is evident from changes which have been recently initiated in connexion with the October inauguration in more than one London school. But the power of one great name, be it as widely known as that of the President of the Royal Society, or the President of the Medical Council, is not in itself sufficient to overcome an inertia that is the growth of years. It needs the enthusiastic co-operation and determination of all.

It is possible to imagine a grave and impressive ceremony, where the untimely exuberance of youth should be duly overawed, and the grave and reverend seniors of the school should file in amidst the solemn silent feeling of all that a function of some meaning was being celebrated at that hour, not only there, but in every medical school throughout the country. It is possible to imagine the most bent and worn of past students leaving their ingle-nook to wave a kindly greeting to the new generation; it is possible to imagine the most busy and successful of past teachers robbing their patients of this one afternoon, and putting their school and their successors under one more obligation to them; it is possible to imagine those successors looking eagerly forward to this ceremony as a solemn recognition of past labours, and a solemn inauguration of labours to come. Given all this, and the students would be quiet and reverent enough, for reverence is easy to youth if it is only shown something to revere. Then, when the places were all duly taken, one might see some veteran, whose labours had won him wide respect, come gravely forward and, in a few simple and heartfelt words, welcome the newly enlisted students, and felicitate them on their initiation into the sacred art and mystery of medicine. Perhaps, too, he might go on, in brief and unstilted phrases, to remind them of the great dead—of Hippocrates, Harvey, Sydenham, Bright, and others,—who still, in spite of all change in our methods of research, remain the honoured exemplars of our calling. And then, with a few words on that special school, begging for it the loyalty and love of all, he would have ended, and the assembly would disperse with a feeling of seriousness, if not of awe. Can anyone not trained in the school of burlesque doubt for a moment that a ceremony of that sort would knit together the disjointed members of our profession, and start them on their year's journey with a new sense of its honourableness and homogeneity?

Contrast it with what we now see every first of October. The students clamorous, disrespectful, and eager to cheer the most trivial incident and most threadbare jest; the staff too often wearied and uncomfortable at having to play a part in what they honestly believe to be a hollow ceremony; the lecturer apologetic, either from a deep-seated doubt as to the utility and reality of the proceedings, or from a fear that his remarks, which have been written for readers, and not for listeners, will fail of general apprehension—everyone anxious that the whole affair should be speedily over, to make way for the pleasant and unrestricted greetings of old friends, which now are apt to form the only redeeming feature of these annual events. We are met with complaints on every hand that the profession is so ununited, and has so little momentum for its State function; that men

have such slight respect and fondness for their *Alma Mater*; while, as a curiously apt commentary on this state of things, the address which excited more attention than almost any other that has been delivered within the past ten years was one in which the lecturer solemnly condoled with the new students on having joined a profession which has so little to offer them. Why, what can we expect of our younger brethren if we allow them to see the one most solemn occasion of their career treated with such cynicism? How can we blame them for regarding themselves, and their calling, and each other with so little respect, if we do not show them that we are proud of the inherent dignity of the profession, and determined to clothe that dignity with appropriate ceremoniousness? But dignity is impossible without faith, be it but faith in the increase of science as an ideal good, which Professor Lankester has so eloquently lauded; and if we see the public veiling its eyes when it scatters its rewards upon us, and stopping its ears when we have aught to say to it, we can hardly complain, while we ourselves manifest such scepticism as to the validity of our claims as ministers of truth, and seem so little disposed to give due weight and impressiveness to our single ceremonial observance.

#### MECHANICAL DYSMENORRHEA.

WE recently called attention to the researches of Vedeler (a) into the supposed causation of painful menstruation by uterine flexion. Bending of the uterus is, however, but one of the conditions which, it is taught, produce dysmenorrhœa by mechanically hindering the exit of menstrual blood. The doctrine has been propounded, that all dysmenorrhœa is due to obstruction somewhere, a failure to find the seat of the obstacle only meaning either that the examination was incomplete, or the examiner deficient in skill and acuteness. In the list of causes to which dysmenorrhœa is by these theorists ascribed, stricture of the cervical canal, at the internal or external os, figures prominently, opinions being divided as to which is the more frequent. Peculiarities in the shape of the vaginal portion of the cervix, consisting in an unusually conical shape of this part, combined with an external os which is round instead of being a slit, have been pointed out as occurring in patients the subject of the disease under consideration. Metrotomes, at least as big as a No. 6 or No. 7 catheter, have been devised to be passed into and to cut the strictured internal os, but we are not aware that any satisfactory explanation has been given of how it is that a canal which will admit so large an instrument, yet is insufficient for the transit of the small quantity of blood which forms the menstrual flow. The same criticism applies to the treatment recommended for stricture of the os externum. There is this difference between the two kinds of stricture supposed to be so common. The existence of stricture of the internal os has been by some denied altogether, except as due to rare and exceptional causes; whereas there is no doubt that the vaginal portion of the cervix uteri is not always the same in shape, and that the external os varies in size in different women. It is assumed that where the os is small, menstruation is painful—the pain being due to obstruction resulting from the smallness of the orifice.

In the communication of Vedeler to which we have referred, he considers this theory. He points out that, as in the subject of flexions, so with regard to a small external os, investigation has been one-sided. Only patients who were suffering have been examined; and because in some of them a peculiar conformation of the cervix uteri was observed, surgical gynecologists have jumped to the conclusion that the pain resulted from the shape of the cervix. Before this inference ought to have been even provisionally accepted, it

(a) *Archiv für Gynäkologie*, Bd. xxi., zweiter Heft.



decided to be shown that the state of cervix in question was not present in women who menstruate without pain. No attempt has been made to do this, so far as we know, before Vedeler undertook his researches.

In investigating the subject, the first thing to be decided is, what is a small os? Vedeler took the ordinary uterine sounds in use, viz., Simpson's and Sims's. Of these Sims's is the smaller, its knob measuring less than three millimetres in thickness. He therefore assumed that an external os through which this instrument could only be passed with pressure might be properly called "small." One that was only of the bigness of a pin's head he denominated "very small." These definitions being decided upon, Vedeler proceeded to ascertain the frequency with which a small os externum exists. Out of 252 women, he found 15 cases (or about 6 per cent.) in which the external os was small; in 6 it was very small. In none of these was there retention of menstrual blood or painful contraction of the uterus. In 100 women who menstruated painfully, stenosis was present in 9, a slightly larger percentage than among those who menstruated without pain. But the 100 included only 18 who had borne children, while of the 252, in 92 the os externum had been enlarged by childbearing. Deducting these in each case, the figures stand: out of 82 nulliparous women menstruating painfully, there were 9 cases of stenosis of the external os, or 10 per cent.; while out of 160 menstruating without any pain, there were 15 such, or 9 per cent., an almost identical proportion. These figures, says Vedeler, give reason for doubting whether stenosis of the os externum has any influence upon the production of dysmenorrhœa. They confirm the teaching of Duncan, who says, "the smallest passage described, 'pin-point os uteri,' as it is called, is quite enough to allow a hundred times as much blood to pass as there is any occasion for, or as offers to pass." This general assertion of Duncan's, of course, might require modification by facts. It is quite conceivable that a small external os, though itself quite large enough to permit all the menstrual blood to pass, might yet be a malformation associated with other modifications in the genital system which should make menstruation painful. Theoretical propositions must always yield to the results of clinical observation. But at present, so far as we know, Dr. Vedeler's is the only attempt to investigate, according to a scientific method, the relation of smallness of the external os to dysmenorrhœa; and his result is to show that the two conditions are not connected. The only objection, so far as we can see, that can be made to his method, and therefore to his results, is the smallness of the numbers. Let us hope that others who still think the subject worth inquiry will continue the investigation, and either confirm or refute Dr. Vedeler's conclusions.

#### A RADICAL FAULT IN OUR REFORMATORY SYSTEM.

THE twenty-sixth Report of the Inspector of Reformatory and Industrial Schools in Great Britain, which has been published recently, contains a large mass of interesting information about these institutions; and yet it does not enable us to judge in a satisfactory manner of their condition, and of the degree in which they are fulfilling the expectations with which they were founded and are supported at great public expense. The Inspector of these schools, Lieutenant-Colonel Inglis, who is responsible for the Report and its elaborate appendices, evidently discharges his duties with the utmost zeal and assiduity, and his failure to supply a full and instructive description of the establishments under his supervision must be attributed not to any want of disposition on his part to do so, but to the practical

impossibility of his accomplishing more than he already does, and to the lack of that special training which would enable him to penetrate beneath the surface, and get at the very core of his subject. The preparation of the Report which lies before us might in itself occupy no inconsiderable portion of the official year of one inspector; but, in addition to this, Lieutenant-Colonel Inglis has, with the aid of one assistant, to inspect 211 schools scattered over England and Scotland, and containing 24,215 juveniles under sentence of detention. Then the inspection of these schools can only be thoroughly and successfully carried out by a medical man. It becomes more and more evident that juvenile crime is intimately connected with juvenile disease, and that the two great highways leading boys and girls to reformatories and prisons are inherited pathological tendencies and parental neglect. "The fathers have eaten sour grapes, and the children's teeth are set on edge," or the fathers are so much engaged in drinking sour beverages that their children's teeth decay for want of the commonest attention. A glance at a group of reformatory or industrial-school children convinces of this. Their stunted forms, misshapen features, unhealthy complexions, and strange furtive ways, bear the stamp of degeneration born in the tissues, or wrought in them by starvation and the deprivation of all those influences that are necessary to sound, vigorous growth in the earliest years. And degeneration of this kind tinctures and taints the whole life of the child, and can only be arrested and counteracted by careful regimen and treatment, without which discipline and education are comparatively useless.

The medical conception of their situation is, we maintain, essential to the profitable and humane management of juvenile offenders, and this conception can never be properly grasped or applied by a layman. And upon this broad ground we urge that the houses in which such crowds of these are detained should be under skilled medical inspection. No doubt the rejoinder to this plea will be that these houses are under medical inspection, each of them being visited by a medical man who is in practice in the neighbourhood. But it is not inspection of this kind, valuable although it doubtless is, that we desiderate. These visiting medical officers are appointed to treat the children who may be reported sick, and to afford counsel in sanitary matters when it may be asked of them; but they have little or no share in the general administration of the houses, and any interference on their part in the regulation of these educational and disciplinary measures, in which they might perhaps be most useful, would be promptly resented. They have to confine themselves to their duties, which are of a very circumscribed description. Individual cases of illness are handed over to them, but the universal malady is excluded from their consideration. Any pimple or corn falls within their province, but the whole heart that is sick and the whole head that is sore must be doctored by clergymen, taskmasters, and retired military officers. It is not medical inspection of this kind that is needed, and no extension of it would meet our requirements. What is imperatively demanded is inspection by a central medical authority in immediate relation with the Government, free from local influences, capable of taking a comprehensive and scientific view of the problems that arise in connexion with the attempts made to redeem our little waifs and strays, of generalising the experiences and experiments of the various institutions in which they are confined, and of exercising a healthy control over these institutions.

And the medical inspection of reformatories and industrial schools, such as we have indicated, would have many specific advantages beyond those general ones which have been alluded to. It would afford, for instance, the best



guarantee that is obtainable for the humane treatment of the children. It is not, of course, insinuated that the children are not humanely treated at the present time. Reformatories and industrial schools are, we believe, conducted for the most part in a spirit of gentleness and kindness; but recent investigations in London and Glasgow have shown that terrible abuses may spring up in them, and go on long undetected; and that the helpless children shut up in them may be subjected to cruelty which it is shocking to think of. These children are, no doubt, very trying to those who rule over them. They are unlovely to look on, and destitute of those winning ways which are such a shield against severity to better-born children. They are dull and stolid, or insubordinate and incorrigible; they requite kindness with contempt, and grow thorns and thistles where good seed was planted. So disheartening and provoking are they, so difficult to govern, so wayward and wicked, that something more than ordinary good nature and self-restraint are necessary to prevent those who have the charge over them from becoming austere or irritable, and from adopting measures of unnecessary rigour. And that something is, we believe, the medical conception of juvenile delinquency, impressed on all those who have to do with it, and made the guiding principle in the establishments which are devoted to its eradication or cure. The insane were treated with cruel repression so long as they were under the care of priests or laymen, and it was only when insanity was recognised as a disease, and when the treatment of the insane was relegated to medical men, that the modern humane system of lunatic asylum management was inaugurated. And so it may be argued that only when the morbid element in juvenile delinquency is recognised, and when medical science is brought to bear on the training of juvenile delinquents to a larger extent than it has hitherto been, will that training be truly humane and fully successful.

The need of medical and scientific supervision of reformatories and industrial schools may be clearly perceived in the Report of the present Inspector, where it is dealing with the conduct and discipline of these institutions. A medical inspector would unquestionably regard it as one of his first and most important duties to obtain accurate and detailed returns of all the punishments inflicted on the children; but the present Inspector, while never omitting to refer to the subject in his separate reports on each reformatory, does so in such vague and general terms, that it is impossible to form any estimate whether the punishments employed are judicious in number and amount, or unjustifiably severe and numerically excessive. In scores of instances we are told that there had been "a small average of corporal punishments," "that discipline is maintained without much severe punishment," "that the number of punishments have been considerably below the average," "that the record of punishment is light"; and, in many cases on the other hand, we are told that the record of punishments and offences was of "a serious character," that there had been "too much corporal punishment," or that "the record of punishments was a heavy one." But what does all this mean? Such phrases convey little or no meaning unless we know exactly what the punishments are, and what is considered an average amount of punishment. A table should be provided, showing the number of punishments of each description in every school, and the precise character of the punishment. As regards corporal punishment, the public should be informed by whom it is inflicted, in whose presence it is inflicted, with what instrument it is inflicted, and what number of strokes are administered. The Home Office carefully prescribes the weight of the cat that is used for the flogging of garotters, and the public is surely entitled to know the

length of the birch and the thickness of the strap that are employed in the chastisement of the hapless and badly nourished children of the State. The public is surely entitled to know whether the practice of flogging with a cane on the bare back (a most excruciating and sometimes dangerous punishment) is still resorted to in some reformatories. But upon all such matters nothing is said in the Inspector's Report. The Inspector himself is evidently in favour of leniency, and everywhere recommends a system of marks, and inculcates the superiority of moral influences to physical coercion. But he does not appear to be listened to in all quarters, for we obtain through his Report one or two rather disquieting glimpses behind the scenes. He alludes to "cell cases"—whatever these may be,—to the committal of numbers of juveniles to prison after they have been found incorrigible under reformatory discipline, to outbreaks of mutiny and general disaffection, and to instances of wholesale desertion. In reporting on the Industrial Home for Girls at Ipswich, he says there have been throughout the year "many cases of personal chastisement carried much beyond the ordinary limits. I strongly object to severe and extraordinary measures for the repression of evil in such schools in dealing with girls of advanced age." This and other allusions which might be quoted satisfy us that additional precautions are still needed in the matter of corporal punishment, as a first step towards which a table of accurate returns, such as a medical inspector would have insisted on long ago, is essential. The precaution adopted by the Home Office—a very sensible one—in requiring a list of punishments to be hung upon the wall of the school-room of every reformatory or industrial school, is not always complied with.

But it is not merely in connexion with discipline and conduct that the desirability of medical, in addition to lay, inspection of reformatories and kindred institutions is apparent. In every department of the Report which we are considering, proofs are conspicuous of the need of such a reform. We have turned over the volume in vain in search of information as to the offences for which children admitted into reformatories and industrial schools had been convicted—an elementary, but important, matter in measuring the condition and utility of these institutions, and a matter which a doctor could scarcely have overlooked. We have sought, equally in vain, in the paragraphs dealing with the state of the premises in each school, for information as to the cubic space allowed by day and night to each inmate, as to the dormitory and sanitary arrangements. And we have not been more fortunate in securing enlightenment from this Report as to the educational system pursued in these schools, the hours devoted to study and recreation, or as to the relative proficiency of different classes of children in different kinds of school-work. As might have been anticipated, the information procurable about the health of the children is still more meagre and unsatisfactory. There is no tabular statement of the causes of death in the 123 children who died in the schools last year, nor of the nature of the diseases which led to the discharge of 94 children last year, nor of the amount and kind of sickness that prevailed in the schools. There is no reference to the dietary in the different schools, although this seems, if we may judge from the sums of money expended on food, to vary greatly in different institutions, and to fall, in some instances, short of what physiology would sanction; for we question whether, at the present price of meat, milk, and bread, a child can be kept adequately nourished at a cost of 2½d. per day. Information on these points, and on many others of vital significance which we might mention, such as the height and weight of the children at various ages, might very well replace much of the matter with which the Report



is now loaded—matter which is simply dull and tedious iteration.

Reformatory and industrial schools are still upon their trial; and hence the importance that we should know truly the quality and quantity of the work which they are doing. They grow apace,—at the end of 1864 they contained 5954 inmates, and at the end of 1882, 24,215,—and hence again the importance of gauging their value as reformatory agencies, so that we may decide whether they are to be permitted to expand, or whether some new departure should be tried. It is by no means an established truth that the segregation of herds of depraved children in institutions by themselves, where they are exposed to the general diffusion of vice, and are deprived of all the holpening and saving influences that cluster round a home, however humble, is the best way to win them back to the higher life. Public convenience will always make it necessary to maintain this system to a certain extent, and for the worst cases; but it is quite another question how far it should be permitted to extend and draw into its net not only deep-dyed little sinners, but the ill-disposed offspring of idle, negligent, and dissipated parents, who are only too glad to transfer their natural obligations from their own shoulders to those of the public.

It has been our purpose to point out the omissions and shortcomings which are discoverable in the Report of the Inspector of Reformatories and Industrial Schools—omissions and shortcomings which only medical assistance can remove—rather than to dwell on its merits and excellences. We cannot conclude our notice, however, without acknowledging these. A thoroughly humane and wholesome spirit pervades the Report, and the Inspector and his assistant have evidently at heart the welfare and happiness of the inmates of the institutions which they supervise. The visitation of the individual institutions is carried out with great care and minuteness, and the descriptions given of them are lucid and instructive. Many practical suggestions of great value are offered, such as those referring to the admission of reformatory boys into the Royal Navy, and to the custody of children, more especially girls, on their discharge from reformatories and industrial schools. With the addition of one able and well-qualified medical inspector the department of reformatories and industrial schools would be an eminently useful branch of the public service.

#### DIPHTHERIA AND "BOARDING OUT."

For many months past, we are told, diphtheria has been present in the suburban districts of Hendon and Mill Hill. No efforts seem to have been spared to stamp out the disease, every means of prevention having been adopted, and the Local Government Board having sent an inspector, in January last, to investigate the causes and centres of the outbreak. In the Hendon district the widespread use of milk from an infected dairy was assigned as the cause of the epidemic, and the measures adopted were so far effectual that the disease was obliterated in that locality. In Mill Hill, however, four miles distant, diphtheria, of a more or less virulent type, has existed, in a sporadic form, ever since. Here, too, all efforts have been made to efface it, but without any marked success. No valid explanation of this unusual tenacity of the complaint has been given, and the Local Government Board have been requested to make the matter the subject of another special inquiry. So far, however, this request has not been complied with, and at a meeting, on September 24, of the Hendon Local Board the medical officer and other members of the Board professed themselves as "baffled" in tracing the origin of the disease. Up to this point, we can only sympathise with the inhabitants of Mill Hill, and with the medical officer, in the failure of such

patient and unfruitful exertions; but, at the meeting referred to, some statements were made, and explanations offered, for the persistence of the epidemic, which involve other issues and call for more extended remark.

It seems that the practice has obtained of sending convalescent patients from the East London Hospital for Children, at Shadwell, to complete their recovery in the cottages of the Mill Hill district, the expenses of their board and lodging being defrayed by a special fund for the purpose. This plan, under proper precautions, would seem both desirable for the patients, and innocuous to the neighbourhood concerned. We say "under proper precautions," and presume, in our remarks on this head, that the most complete and careful safeguards against the spread of infectious diseases, under skilled and responsible medical supervision, both in hospital and cottage, should be a constant and essential part of the system. No one can doubt that extreme benefit would accrue to a large number of children, convalescent from a children's hospital, and free (as far as foresight, care, and precaution can go) from any taint of infectious disease, from spending such few weeks as may be necessary to re-establish their health in the pure air and among the good sanitary conditions of some rural or suburban neighbourhood, where they can be safely and economically placed. No one who has been connected in any way with children's wards or hospitals but must have felt how incomplete and unsatisfactory, after all, was the work done when the pale and emaciated little patient was discharged from the hospital ward—cured, no doubt, so far as medicine in such surroundings can accomplish cure, but still in no such condition as could be described by the term "good health"; discharged, too, into such close and unsavoury courts, to partake of such meagre and unsuitable food, and to miss so greatly the kind care and cleanliness of the hospital, that no further improvement, but an actual deterioration of health will be the most likely and reasonable outlook for the future. Could every child discharged from a London hospital be drafted into such a seaside convalescent home as those which do exist, though in such insufficient numbers, to reap the rich hygienic advantages which such sanatoria afford, many a life, no doubt, would be saved, many a relapse avoided, many a child restored, healthier, happier, and with more hopeful prognosis, to its home. But this is an Utopian dream which is far indeed from present realisation, an outlet and an aim for charitable impulse and energy which has commended itself but too little to the liberality of donors and testators. So, apparently, deemed the kind soul who afforded or collected the means for boarding out these little patients in private cottage homes in Mill Hill and elsewhere. The good which has been so done is incalculable, but, from the report of the speeches at the meeting in question, there seems to be danger lest it should be lost sight of.

Is there any valid foundation for the outcry made by the Hendon Local Board and their medical officer? Has the presence of the epidemic in question been in any way due to the importation of the convalescent children? What are the facts of the case? Early in September last a child developed scarlatina, two days after having been brought to Mill Hill from the East London Hospital; and about the same time cases of diphtheria appeared in the district. No one, we imagine, would contend that the one could be the cause of the other, nor, we believe, does Dr. Cameron, the health officer of the district, maintain that the scarlatinal infection was imported from the Children's Hospital, in which there has been no case of the disease for many weeks. But the case seems to have drawn attention to a possible channel of contagion, and on inquiry it was found by Dr. Cameron that one case of diphtheria and one of croup had been sent



at different times from the East London Hospital to board in Mill Hill cottages. Much was made of these cases, but the statement of the house-surgeon, that the one case had been six months and the other three months in hospital before being sent out, appears somehow to have escaped notice at the meeting. It is, however, a very essential piece of evidence, and, unless we hold views as to persistency of the diphtheric contagion very different from those at present current, is in itself sufficient to render it unlikely *à priori* that the epidemic was introduced in the way hypothesised. And when we hear that it is only during the last year that convalescents have been sent from the Hospital to Mill Hill, whereas diphtheria has been more or less prevalent in the district for nearly two years, it is difficult to believe that even Dr. Cameron himself can attach much importance to this unlikely channel of infection. We are afraid the Hendon Local Board and their medical officer must try again. The epidemic appears to be one in which a rigorous scientific investigation is necessary, especially if it be true, as stated, that one-fourth of the infant population have died of it. Meanwhile, it will be well, if only for the sake of their little patients, that the authorities of the East London Hospital should, as Dr. Cameron suggests, discontinue the present practice of boarding their convalescents among the cottagers at Mill Hill.

### CHRONICLE OF THE WEEK.

THE Medical Session has begun in good earnest at the English schools. It was inaugurated by addresses at all the metropolitan hospitals but Guy's, St. Bartholomew's, and Charing-cross. At the London Hospital the formal ceremonial does not take place till next Tuesday, when Professor Huxley will deliver an address. The most important of the addresses already delivered, both in respect to the rank of the speaker and the subject-matter of his remarks, was that delivered at King's College on Tuesday by Dr. Acland, which will be found in full in another column. It needed some courage, as Dr. Acland himself admitted, to stand up as the champion of what is at present the unpopular side, and to put forward the claims of the spiritual as opposed to the agnostic ideal. But there is no other member of the profession, except perhaps Sir James Paget, who could have treated it with equal authority and tact. The King's students have not been so merciful—so comparatively merciful, one had perhaps better say—to any of their inaugural speakers since Mr. Lister, some years ago, kept them spell-bound for three half-hours with a description of his researches on the *bacterium lactis*.

At St. Mary's Hospital, Dr. Handfield Jones took a line somewhat similar to that of Dr. Acland, and begged the more cultivated students, who presumably are most exposed to such a temptation, not to lightly adopt the prevalent scepticism. The points he chiefly relied upon to dissuade them from it were—that the recognition of a Supreme First Cause is “a necessity of thought”; that the argument from phenomena implying intelligent design is accepted unhesitatingly in the case of human works, and ought therefore to be regarded as equally valid in the case of superhuman; that force and law require each an antecedent power; that miracles are no more impossible than any other extraordinary event, and are to be credited as other events are, on evidence sufficient to satisfy a candid mind. Faith, he asserted, was able to sustain the human spirit under the most trying afflictions, and to irradiate the hour of death with peace and joy. In the evening, the past and present students of the school, their friends, and the members of the

staff, dined at Limmer's Hotel. There were 130 present, this large number being probably due to the popularity of Mr. Spencer Smith, who occupied the chair. Former students of the school came in strong force to support their old friend and teacher, who, it should not be forgotten, was one of the founders of St. Mary's.

At University College, Mr. Tweedy delivered an address marked by rare depth of thought and beauty of language, which will be found at length in another column. The most important part of it, to our mind, was that in which he defined the position of medicine as not merely the art of diagnosing disease and prescribing remedies, but as essentially the science of health. It is interesting to compare Mr. Tweedy's views on this matter with those so ably advocated, at the School of Medicine for Women, by Dr. Donkin. It is a fact of some import, as showing the tendency of modern thought with respect to drug-treatment, that two of the most able of this year's addresses should have boldly taken the same ground. “The medical profession,” says Mr. Tweedy, “would still retain the most important part of its duties, and all, or more than all, its present share of honours, if every drug in the Pharmacopœia were to become extinct. The credulous faith in the efficacy of drugs is, and always has been, the secret of the success of every form of charlatanism.” Dr. Donkin's position is still more absolute, as his defence of it is more elaborate. “In the common use of the term,” he says, “drugs, as a class, should be regarded as having no necessary relation to medicine.” “The so-called drug-treatment of disease has certainly a considerable basis of ignorance and assumption, and it is in response to this credulity that most of the plagues of our profession have arisen.” Both of these addresses are worthy of most careful reading and thinking over. The believers in drug-treatment will, perhaps, charitably hope that the practice of these sceptics is better than their creed; but there can no longer be any doubt that the latter has much to be said for it.

THE other orations dealt with less vitally important questions. At St. George's, Mr. W. H. Bennett gave an interesting address on the social position of the medical profession. He complained that the estimation in which our calling was held, from a social point of view, was inferior to that of other professions. The very great interest of the study and the honourable character of those who practise medicine were acknowledged with all candour and respect by men of the world and of high social standing; but there the matter ended. A comparison between the Law List and the Medical Register would show, for instance, that law was patronised far more freely by society of a certain rank than their own calling. The point in which they compared the least favourably with other professions was that of State recognition. There was no State representative of the profession in either House of Parliament. A medical peerage was yet to be created; a baronetcy was almost rare; a knighthood hardly more frequent. While regretting what had come to be called the “political powerlessness” of the profession, it was but just to mention that the condition did not exist by reason of any want of agitation or importunity on their part; otherwise surely it would have been rectified long ago. The real reason, without doubt, could be found in the fact that the public even now was lamentably careless on matters of health. If they as a profession were to occupy the position which they ought to hold in the political world, it would only be, he firmly believed, in answer to the public will, which no Legislature could resist, and without which it was most



difficult to act. It should therefore be their first business to so educate the people that the important relations which health in all its branches must bear to the welfare of the country might be fully understood. When once this was accomplished, it followed as a matter of necessity that the profession, in whose hands the management of the nation's health should be, must be fully appreciated. Then, and then only, would they arrive at what Tully called the Perfection of Glory, viz.:—"That the people love us, that they have confidence in us; that, being affected with a certain admiration towards us, they think we deserve honour." We have not, we must confess, much sympathy with the outcry for social distinction, believing that our own self-respect is a much more important possession than the empty honours doled out to us by the public and the Crown. Each doctor's social standing must depend on his own individual self, and, collectively speaking, the social status of the medical profession, as distinguished from its political weight, is probably as high as it deserves to be. The shoe, of course, is felt to pinch much more severely in the neighbourhood of Mayfair and Belgravia than in less aristocratic parts, where the doctor is quite as often too good for his work, as the reverse.

At St. Thomas's Hospital the address was delivered by Mr. Le Gros Clark, and its object was to direct the attention of the students to some natural laws in relation to themselves, and to indicate the share which their own will might and ought to have in accomplishing the life-work before them. Intelligent intercourse with Nature would teach them to trust her, and this trust would ripen year by year into a more perfect confidence. This seemed a simple lesson; yet observation had taught him that it was not so. Nature did not like to be opposed, and opposition generally stimulated resistance; but, on the other hand, Nature was as beneficent as she was bountiful, as grateful for help as she was resentful when thwarted. The lecturer then referred to the moral laws by which conduct should be influenced and determined. He reminded his hearers of the distinction between their intellectual and moral nature, and that mental gifts might be employed to contravene and subvert the moral law, and thus be prostituted to selfish and ignoble purposes. In commenting on the number of subjects which claimed the attention of the student during the comparatively short period of his sojourn at the hospital, Mr. Le Gros Clark said he was aware that this necessary compression of so much within so small a compass was consequent on the rapid strides of natural science in these later days; and he deplored one result of this needful stowing of the mind with so many facts—namely, that education in its highest sense was neglected. When they were tempted to acquire knowledge by artificial helps, or in an unmeaning or mechanical way, he urged upon them to seek rather to make the acquirement their own by investigating all its relations, and not to accept on the authority of others that which was within their reach to ascertain for themselves. The lecturer concluded by exhorting the students to realise their responsibility while they were young and vigorous, for age would bring with it sadness and remorse if they wilfully rejected the right and chose the wrong. He urged them not to limit their aspirations to securing their own happiness and the acquirement of knowledge, but to seek rather to realise the still higher and more noble purpose of their existence in promoting the good of others, and in becoming masters of themselves.

MR. PEARCE GOULD opened his address at the Middlesex Hospital with a brief allusion to medical politics, and the withdrawal of the Government Bill, in the course of which

he severely criticised the obstructive tactics of individuals and bodies not wholly disinterested in the matter. It was to be hoped that the only result of the tactics of the representatives of obstructive corporations would be that they would obtain less generous terms when the Bill was next presented to Parliament. Those particular corporations had degraded the profession and deceived the public, and were not worthy of the sympathy of either of the parties so deeply interested in that question. Mr. Gould then proceeded to explain the methods by which the students should pursue their investigations. It was very important to study the body in health as the essential groundwork on which all their later knowledge and practice must rest. That knowledge was to be obtained by studying anatomy and physiology—sciences which ought to be regarded as one, the student seeking for the physiological equivalent of every anatomical fact. Not only was that the true way to study anatomy, but it rendered the task much easier, for association was the greatest aid to memory. But he held that additional importance attached to this point, because the study of anatomy in an improper manner soon wearied the mind, and it either drove the student to habits of idleness or led him to regard it as an exercise of the memory alone. Then, as he passed on to his later studies, the same habit of work would be continued, and facts be stored in the memory without any attempt being made to explain them. Towards the close of his address Mr. Gould commented strongly on the prevalent tendency towards specialism in medicine, which was contrary to the generalisation to be seen in nature. Not only had various organs, and especially all the orifices of the body, a large number of practitioners professing to be specially learned in their affections, but it was now attempted to relegate individual operations to special surgeons. The only claim to special knowledge possessed by many so-called specialists rested upon their entire ignorance of everything outside that small part of the human frame they had taken under their charge; and if his hearers were to seek for ignorance of science, and for the practice of arts which degraded a noble profession to the level of a huckstering trade, it would be in the consulting-rooms of specialists that they would find them.

At the Westminster Hospital, Mr. Boyce Barrow delivered an address, which was marked here and there by a certain dry humour rare in introductory lectures. "An Italian philosopher once said that Time was his Estate—a motto worth adopting. But Time is a more satisfactory Estate to cultivate than a Landed Estate, for whereas the produce of the latter deteriorates after a certain number of crops have been grown upon it, each crop produced, each work accomplished, adds to the value of time." "As a landed estate is not estimated by its extent, but by its productiveness, so time must be estimated by the results of its employment, and not by its length." "Before you have spent many days in the study of anatomy, I venture to predict that there will not be one of you who will not complain of his memory. If you were appointed custodians of a number of valuable treasures, you would so arrange them that you could inspect them readily, and the frequency of your inspections would be in accordance with the fear you had of losing them. In the same way you must so arrange and associate in your minds your anatomical treasures that you can inspect them easily and with a frequency proportionate to the defect of memory of which you complain." Mr. Barrow did not say, as perhaps he might have done, that if the student were acute enough to keep an eye on the treasures likely to be particularly asked for by the examiners, he might safely let the rest drop out of his mind, though they were Pitt diamonds and Koh-i-noors.



THE *soirée* with which Guy's Hospital opened its session was as successful as in previous years, between two and three thousand persons, the larger proportion of whom were ladies, having been present. The whole of one of the large medical wards was crowded with most varied objects of interest, ranging from the latest improvements in surgical instruments and the most advanced methods of microscopic research, to specimens of Venetian glass and mechanical toys. In some of the new class-rooms there were special exhibitions of telephones, etc.; while in the electrician's room Dr. Horrocks very successfully entertained the visitors by inducing special muscular contractions in an individual endowed by nature with a plastic countenance which lent itself with especial facility to the familiar illustration of Ziemssen's motor points. The distribution of medals and prizes to successful students by Mr. Gilliat, one of the governors of the Hospital, took place during the evening.

THE session was opened at Liverpool, on Saturday last, with an address by Professor Herdman, and a distribution of prizes by Lord Derby. This is the first year that the Royal Infirmary School of Medicine figures as an integral part of the Liverpool University College, and it is hoped that before another year has passed the College will be affiliated to the Victoria University, so that the students of its new Medical Faculty will be able to obtain their medical degrees at the Victoria University on the same terms as the Manchester students. But funds are needed to endow two new chairs before this affiliation can take place. The inaugural address was mainly devoted to a vindication of the importance of biology as a portion of scientific training. Dr. Herdman spoke in terms of unbounded admiration of Darwin, and said that, happily, men of science were now practically of one mind in accepting evolution in some form or another, and the main object of a biological investigation was to establish the great theory on a firmer foundation, and to arrive at some definite knowledge of its working. Subsequently, Lord Derby expressed his opinion that Darwin was one of the half-dozen men of the present century who would be remembered a thousand years hence. He had had the honour of knowing Darwin personally, and, great as was his admiration for his work, he was more impressed by his extraordinary modesty and his dignified simplicity of nature. Never in any human being was there a more entire absence of egotism and self-assertion. They could all imitate him in that, although they could not imitate him in his discoveries.

THE winter session of the Army Medical School at Netley commenced on Monday, October 1. The introductory address was delivered by Dr. De Chaumont, F.R.S., Professor of Hygiene, the principal subjects discussed in his discourse being the recent epidemic of cholera in Egypt, and the questions it has evoked regarding the advantages of a system of quarantine with a view to stop the entrance of the disease into other countries, compared with those of a system of sanitary preparedness for confronting it; or, in other words, the adoption of all such hygienic measures as are calculated to prevent it from gaining a hold and spreading in case of its introduction. The almost uniform failure of quarantine for effecting its object was pointed out by numerous illustrations, while, on the other hand, the lecturer demonstrated the positive gains which had always resulted in proportion as hygienic measures had been properly carried into execution. Professor de Chaumont in the early part of his remarks congratulated his colleague, Dr. Aitken, who was present, on his recovery from a recent dangerous illness, and his congratulations were heartily

responded to by the staff of the establishment and others who were assembled in the lecture-room. The session is being attended by twenty-five candidates for commissions in the public services—twenty for the British Army Medical Service, and five for the Indian Medical Service.

At the Newcastle School the session was opened on Monday by Mr. Joseph Cowen, M.P., who, in the course of his remarks to the students, said that the tendency of the present day was more or less in the direction of sameness and uniformity, which lay at the root of sterility and intellectual weakness. Medical students who were called upon to make difficult diagnoses should be able to think for themselves. Mr. Cowen's precept is admirable. Unfortunately for its cogency, his example is a burlesque of it.

ONE noteworthy point in connexion with this year's inaugural addresses is the small space allotted to them in the daily journals, as compared with previous years. In all the papers but the *Times* and *Morning Post*, the abstracts were further abstracted and whittled down, until no idea could be gathered from them of what the lecturers really said. That this was not due to their want of interest is sufficiently evident, for some of them were well above the average, and really worthy, if anything that doctors say ever is worthy, of public attention. And it is equally evident that this unfortunate compression was not due to the pressure of other events. May not the true explanation be that the public are growing a little weary of the constant claims of science, as a universal teacher, on their attention, and that their caterers in the press are wise enough to perceive and make allowance for this weariness? No one will suspect us of underrating the importance of the medical education of the public, but the teacher who is anxious to teach at all hours will soon empty his school. Reaction is a force that always threatens the ardent proselytiser. There is one point, however, on which the wooers of the West-end may congratulate themselves—the *Morning Post* gives the abstracts in full.

THE session has commenced in real earnest in the metropolitan dissecting-rooms, as the subjoined statement of the number of bodies being dissected shows. Taking them in numerical order, at St. Bartholomew's 27, at Guy's 19, at University College 18, at the London Hospital 17, at St. George's Hospital 8, at King's College 7, at the Middlesex 6, and at Charing-cross Hospital 4 bodies were placed on the table on October 1. The mode of preparing the bodies at University College Hospital is as follows:—The bodies are injected with a solution of one pound of crystallised carbolic acid in half a gallon of glycerine and half a gallon of spirit. Each body is then sewn up in calico and put in a tank, and a solution, consisting of glycerine one quart, water and spirit half a gallon each, and common carbolic acid half a pint, poured over it. At King's College the bodies are preserved by what is known as the Edinburgh process.

ADDRESSING the students of the Pharmaceutical Society, at the opening of the winter session on Wednesday last, Dr. Michael Foster seized the opportunity of planting some very well-directed and timely blows against the system of cramming for examination. Diplomas had come to be the stamp and certificate not so much of general ability and skill, as of ability and skill in passing an examination. In many cases they were even less than that—proofs not of the ability of the candidates, but of the skill of the "coach." Some coaches, no doubt, gained their ends by real teaching, but in many cases they gave less



attention to the nature of the study than to "the examiner's mind," his whims, his fancies, and what answers would be likely most to tickle him. Dr. Michael Foster has done well to call public attention to this point, but surely the fault lies with the examiners, and not with the coaches. The examiner has no business to let himself become the victim of "tickling." The simple fact is, that in the struggle between examiners and coaches, the latter, being more men of the world, better paid, and with a direct interest in results, have got the best of it. The remedy is simple: choose examiners rather for wisdom than for knowledge, and pay them well.

MR. LISTER is enjoying another triumphal progress on the Continent. Some years ago, it will be remembered, he was received with immense enthusiasm by the South German students. In Hungary, where there is a very real and rapidly growing interest in scientific progress, his presence has excited no less interest. On Saturday last the Professors of the Medical Faculty of the Pesth University gave a banquet in his honour, and the students arranged one of those torch-light ovations which they organise so cleverly. Several hundreds strong, they appeared with torches before the hotel in which the dinner was held. A deputation was sent up, and Mr. Lister and his wife, followed by the Professors, came out on the balcony, where they were received with much cheering. The students addressed Mr. Lister in Hungarian and in English, assuring him that they had daily opportunities not only of hearing his praise from their teachers, but also of convincing themselves personally of the blessings his activity had conferred on mankind. Three cheers were given at the conclusion of the addresses. Mr. Lister replied in German, thanking the students for the ovation, and adding that he could not take these manifestations of sympathy and enthusiasm as meant for himself, but as an ovation to their noble art. These Hungarians teach us a lesson in reverence.

THE Obstetrical Society of London met on Wednesday evening last. Specimens were shown by Dr. Mansell-Moullin, Dr. Edis, Dr. W. A. Duncan, and Dr. Champneys. A paper by Dr. Swayne, on a case of Gangrene occurring during the Seventh Month of Pregnancy, was read; and also one by Dr. Henry Bennet on the Anatomy, Physiology, and Pathology of the Os Uteri Internum. These papers, the latter especially, excited an animated discussion, the position taken up by Dr. Bennet being one adverse to the practice of incision of the os internum, so much in vogue in America and among some gynæcologists in this country.

THE Sanitary Institute of Great Britain held its annual Congress at Glasgow last week. The meeting was a most pleasant and enjoyable one. There was throughout a spirit of unity in considering the business of sanitation, each one showing that he was in real downright earnest in the part he had to occupy in the deliberations. It must perhaps be confessed that the members were not treated to much that was really original, the material for the most part being old ideas dressed up for the occasion according to each speaker's fancy. Altogether, however, it was a very successful meeting. The Exhibition is still open, and will continue so until the 20th of the present month.

THE Congress was opened by an address from Professor Humphry, on the 26th ult., and to each of its three sections a day was devoted. Professor W. T. Gairdner, of Glasgow University, delivered the presidential address in the Section of Sanitary Science and Preventive Medicine. He gave an account of the work carried out in Glasgow during the

period from 1863 to 1872, in which he was responsible for the sanitary administration of the city; and led up the argument to prove that "the true preventive medicine is to be found chiefly in improvements directed towards the ventilation, cleanliness, and general comfort of the houses of the poor." Papers were afterwards read on the geographical distribution of phthisis, cholera epidemics, typhoid fever, the disabilities of inspectors of nuisances, the sanitary condition of Glasgow, house-sanitation in and around Glasgow, and the dangers threatening Southport as a health-resort. In the evening a *conversazione* was held in the Corporation Galleries. On Friday, Dr. R. Angus Smith, the President of the Section of Chemistry, Meteorology, and Geology, delivered an address on "Air as a Sanitary Agent," in which he dwelt at length on the influence of the atmosphere in promoting health and preventing disease, and described the process of putrefaction and the effects of oxidation. The fact that oxygen diminished the activity of the minute particles which produce chicken-cholera, that it rapidly and decidedly arrested decomposition in sewage, indicated the central point in all sanitary reforms—the importance of pure air. Papers were read on smoke-abatement, the comparative merits of fine and coarse flour as an article of food, disinfection by heat, river-pollution, and the utilisation of town refuse. At the closing general meeting, in the evening, it was stated that circumstances had arisen which would prevent next year's meeting being held, as intended, at Cheltenham. It was agreed to accede to an influential requisition from Dublin, asking that the Congress of 1885 should be held in that city. The customary votes of thanks brought the meeting to a close. The members dined together at night in the St. Andrew's Halls, the President, Professor Humphry, in the chair. The sittings of the Congress were brought to a close on Saturday. During the day numbers of the members of the Congress took part in an excursion to Ardrishaig, and in the evening Dr. Alfred Carpenter addressed a meeting of the working classes in St. Andrew's Halls on public health.

#### ST. MARY'S HOSPITAL MEDICAL SCHOOL.

AT this School very extensive and important additions have been made, and it now not only possesses every modern requirement of a medical school, but the accommodation for every department of teaching is extremely good. An important feature of the new arrangements is the establishment of a students' club, including a restaurant for lunching. The School Committee anticipate much benefit to the students by this "new departure," and if the club is well managed we believe that their anticipations will be realised.

#### UNIVERSITY COLLEGE HOSPITAL.

VERY considerable improvements, involving a large outlay, have been carried out during the recess in the casualty and out-patient departments of this Hospital. The casualty ward has been enlarged, and the space in one wing of the building has been rearranged. A new suite of rooms has been constructed, which will serve for out-patient practice in the daytime, while at night they will be available for casualty cases. What was once the nurses' dining-room has been turned into a surgeons' consulting-room, and from this access is had by separate entrances—one for women and the other for men—to compartments known as cubicles, where wounds are dressed, and limbs or other portions of the body bathed and douched. Three lady nurses have been engaged—two by day, and one during the night—to attend on the female patients. One of the chief results of these new arrangements is that a large addition can be made to the



patients at present supplied with advice and relief; while the consulting-room will for the future be much better ventilated than it has been hitherto.

#### LUND TESTIMONIAL FUND.

THE past and present pupils of Edward Lund, Esq., F.R.C.S., Professor of Surgery at the Owens College, Manchester, are about to present him with a testimonial on the occasion of his retirement from active service as a Surgeon at the Manchester Royal Infirmary. The testimonial is to take the form of a portrait, by Mr. J. H. Partington, and plate. As many of Mr. Lund's friends have expressed a wish to join in the testimonial, and as some of his former pupils may not have received a circular, the subscription-list will remain open for a short time longer. Communications may be addressed to F. A. Heath, Esq., 118, Portland-street, Manchester, chairman of the testimonial committee, or to Dr. Leech, Mosley-street, Manchester, treasurer of the fund.

#### ALLEGED DEATH FROM VACCINATION AT DEPTFORD.

At a meeting of the Council of the Poor-Law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, on October 2, 1883, it was resolved—"That this Council, having read the statements that have been made relative to a recent inquiry held at Deptford, have to express its regret that any erroneous opinion should have been given by any practitioner concerning an eruption occurring in four children out of twenty-one vaccinated from the same child, thereby leading to an inquest being held on one of the children, who died two months after vaccination, from pneumonia. The Council begs to tender its sympathy with Dr. Kavanagh on the unjust aspersion on his character which the rider to the verdict of the coroner's jury conveyed. The Council congratulate Dr. Kavanagh on the recognition of the injustice of such rider by so high an authority as Dr. Stevens, Government Inspector of Vaccination, and trusts that the Medical Council will mark its sense of the impropriety (if not something worse) of the written statement of the medical man upon whose allegation a coroner's inquiry was considered necessary."

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-eighth week of 1883, terminating September 20, was 942, and of these there were from typhoid fever 35, small-pox 5, measles 16, scarlatina none, pertussis 22, diphtheria and croup 22, erysipelas 10, and puerperal infections 2. There were also 44 deaths from acute and tubercular meningitis, 179 from phthisis, 16 from acute bronchitis, 43 from pneumonia, 118 from infantile athrepsia (45 of the infants having been wholly or partially suckled), and 32 violent deaths. Although the number of deaths has somewhat increased upon the exceptionally small one of last week (910), it still continues very low. Epidemic diseases have scarcely varied in the two last weeks. In neither of these have there been any deaths from scarlatina, and in each only 5 deaths from small-pox. Athrepsia, which mounted up the week before to 145, has in the present week sunk to 118, although the month of September is usually so favourable to its development. During the week there were 1144 births (in the unusual proportion of 544 males and 600 females), the legitimate numbering 860, and the illegitimate 284.

#### THE LIVERPOOL HOSPITALS.

THE question of assisting voluntary hospitals out of municipal funds is at present engaging the attention of the Liverpool Council. In April last, after a wordy warfare

in the local papers between the medical men and Mr. Forwood, it was generally understood that a grant of land to extend the Royal Infirmary would be sanctioned, and that an application to Parliament for power to purchase the property and to demolish the houses now standing on the ground would in due course be made. However, at a meeting of the Council on September 26, when this scheme came up for confirmation, it was found that the Committee of the Stanley Hospital had sent in an application for £5000 to build a new wing to their institution; that the authorities of the Northern Hospital had applied for both money and ground to extend their Hospital; that the President of the Children's Infirmary had asked the Council to again seek sanction from Parliament for powers to grant them a piece of land which the Treasury refused to permit the Council to grant them in 1881; and that the Council itself had almost come to the conclusion to build one or more hospitals for infectious diseases, so as to be able to carry out more effectually their warfare against fevers. So many hospital demands upon the municipal funds have caused the Council to pause in their proposed generosity to the Royal Infirmary, lest a precedent should thereby be constituted that would bring them into troubled waters, or, if they conceded all that was asked, would involve the city in a heavy expense. In spite of the appeals of warm friends of the Infirmary, the Council appointed a committee, with authority to communicate with the trustees of the institutions affected, and instructions to report as to the best method of dealing with these matters without imposing an unreasonable burden on the ratepayers. The Infirmary scheme is, therefore, in all probability shelved for another year.

#### THE NOTIFICATION OF INFECTIOUS DISEASES IN LIVERPOOL.

At a meeting of the Health Committee on September 21, Mr. Forwood, the strongest advocate in the Council of compulsory notification of infectious disease, cited a number of instances where fever was allowed to spread, without any intimation being given to the medical officer of health by the medical men in attendance. Mr. Stevens, the strongest opponent of compulsory notification, alleged that notification had nothing to do with the matter, and that fever was inseparably connected with certain streets and houses. He carried a resolution, authorising a survey by the medical officer of health and the city engineer of all unhealthy property where fever has lurked for years, and directing that a report of the same be made to the Council. At the next meeting of the Health Committee it was found to be necessary to rescind this resolution, because, under the Sanitary Amendment Act of 1864, if the medical officer reported any dwelling unfit for human habitation or in a condition injurious to health, a presentment would have to be made, the property would have to be purchased at the owner's price, and the town put to the expense of "hundreds of thousands of pounds." It was explained that the Health Committee was at present purchasing and cleaning unhealthy houses to the extent of five hundred or so yearly, and, not being forced to purchase any special house, they found they could manage it more cheaply than if they were forced to clear out two or three thousand houses at one swoop.

#### REGISTRAR-GENERAL'S RETURNS FOR SCOTLAND.

THE death-rate in the eight principal towns in Scotland during the week ending Saturday, September 29, was 20.6 per 1000 of estimated population. This rate is 0.4 below that for the corresponding week of last year, but 0.6 above that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 17.6 per 1000,



and the highest in Greenock, viz., 24·7 per 1000. The mortality from the seven most familiar zymotic diseases was at the rate of 4·0 per 1000, or the same as the rate for the previous week. Diarrhoea continues to be the most fatal miasmatic disease. In Glasgow 10 deaths were attributed to whooping-cough, and 9 to scarlet fever. Acute diseases of the chest caused 75 deaths, or 6 less than the number registered during the previous week. The mean temperature was 53·5, being 0·7 below that of the week immediately preceding, but 1·5 above that of the corresponding week of 1882.

#### FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

THE annual meeting for the election of office-bearers was held on Monday, the 1st inst. The attendance of Fellows numbered about a hundred. Dr. Andrew Fergus was elected President, and Dr. Henry Muirhead Visitor. The new Councillors elected were—Dr. Robert Perry, Dr. James Christie, and Dr. T. Lapraik. Of the four retiring Examiners, two were re-elected without opposition, and the other two after a contest. Dr. H. C. Cameron was re-elected Examiner in Surgery, and Dr. James Stirton in Midwifery. For the Examinership on Anatomy, Mr. D. N. Knox, Lecturer on Surgery in the Western Medical School, was defeated by Dr. A. M. Buchanan, Professor of Anatomy in Anderson's College. The other contest lay between Dr. W. J. Fleming, the retiring Examiner in Physiology, and Dr. John Barlow, Lecturer on the subject in the Royal Infirmary School. Dr. Fleming obtained the appointment. Four Examiners on Public Health were appointed—Dr. J. M. Milne, Dr. Eben. Duncan, Dr. J. B. Russell, and Dr. James Christie.

A DAILY medical journal has just been started at Paris.

THE Working Men's College will re-open on Monday next with an address by Sir James Paget.

THE epidemic of typhoid fever in St. Pancras has spread to the Female Orphanage in the Hampstead-road, and has prostrated 20 per cent. of the inmates.

WE understand that Mr. Butlin will deliver the introductory address at the Abernethian Society, at the opening meeting on October 11.

A MOVEMENT is on foot for affording relief to Mr. George Hind, F.R.C.S., who, in his eighty-first year, is incapacitated from work by serious illness, and is in straitened circumstances.

WE are glad to be able to state that, as a result of the examination and report of Dr. Orange, William Gouldstone has been finally respited, and will be detained during Her Majesty's pleasure.

DR. B. W. RICHARDSON, Dr. W. Collingridge, Dr. J. W. Tripe, and Dr. W. H. Corfield have been elected honorary members of the Association of Public Sanitary Inspectors.

SEVERAL of the doctors who were sent out to Egypt during the late cholera epidemic may be expected home again in the course of next week. Surgeon-General Hunter has already arrived in England. The members of the Pasteur scientific mission left Alexandria on their return to France on the 2nd inst.

THE late Sir William Taylour Thomson, K.C.M.G., C.B., for many years Her Majesty's Envoy Extraordinary and Minister-Plenipotentiary in Persia, has bequeathed £30,000

to the St. Andrews University, to found bursaries for students of both sexes in equal numbers, and, in the case of females, to assist them, as far as practicable, in qualifying themselves to enter the medical profession.

THE Congress of the National Association for the Promotion of Social Science was opened at Huddersfield on Wednesday. In the Health Department, of which Mr. Pridgin Teale is president, the following are the special questions for discussion:—"Is the modern system of education exerting any deleterious influence upon the health of the country?" and, "Is it desirable to take any, and what, further measures to prevent the spread of zymotic diseases through the milk-supply of our towns?"

THE St. Pancras Vestry propose to utilise a portion of the enclosed piece of burial-ground abutting on St. Pancras Gardens and Cambridge-street for the purpose of erecting a public mortuary and coroner's court. The need of a public mortuary in all populous districts is obvious, and a coroner's court is a desideratum of scarcely less importance. It is high time the use of the public-house for these inquiries should be superseded; and if the time-honoured custom of viewing the body is to survive, it is as well that mortuary and coroner's room should be under one roof.

WE are requested by the Registrar of the Royal College of Physicians to state that the remains of the illustrious Harvey, now lying in the vault under Hempstead Church, in Essex, will be removed, with the sanction of Harvey's next of kin, to the Harvey Chapel, and placed therein, in a sarcophagus provided by the Royal College of Physicians. The ceremony will take place on Thursday, October 18, being St. Luke's Day, and Fellows of the College intending to be present on the occasion must signify the same, on or before Thursday, the 11th inst., to the Treasurer or Registrar of the College, from whom all necessary information may be obtained.

DURING the coming season the following books of general interest to the profession will be published:—"The Creed of Science: Religious, Moral, and Social," by William Graham. "Voyages of Discovery," by Deputy Inspector-General Robert McCormick, R.N., F.R.C.S. "Essays on Diet," by Professor F. W. Newman. "The Laws concerning Public Health," by W. R. Smith, M.D. "Voice, Song, and Speech," by Lennox Browne, F.R.C.S.E., and Emil Behnke. Vol. i. of "The World as Will and Idea," by Schopenhauer, translated from the German by R. B. Haldane and John Kemp. "The Vegetable Materia Medica of Western India," by W. Dymock. Von Hartmann's "Philosophy of the Unconscious," translated by W. Dymock. "Wild Adventures Round the Pole," by Dr. Gordon Stables, R.N.

A YEAR ago the Committee of the London Hospital commenced the experiment of taking lady apprentices to learn the art of nursing in their extensive and well-managed wards. The ladies were admitted for short periods of three months on paying a small entrance-fee, and the Hospital obtained the advantage of their services without being at any cost to provide them with board and lodging. The experiment has been attended with remarkable success, and so numerous are the demands for admission that another house will shortly be opened in addition to those at present in use. Every Wednesday a lecture on nursing is delivered to these ladies. The first course is on the general details of nursing, by the matron; the other two courses, on medical and surgical nursing respectively, being delivered by Dr. Sansom and Mr. Treves.



## FROM ABROAD.

## CANCER OF THE BREAST.

At the late Congress of German Surgeons at Berlin (*Centralblatt für Chir., Beilage*), Dr. Küster, of Berlin, introducing the question of operating in cancer of the breast, observed that although in so many quarters the desirability of performing the operation at the earliest period and in the most complete manner had been maintained, yet nowhere has it been maintained as a principle (as may be seen by the best known textbooks and the most recent statistical publications) that the clearing out the glands of the axilla should in all cases be combined with the amputation of the breast. Taught by his own experience, Küster supported the plan of thus clearing out the axilla, even when, as in thin women, the glands could be felt to have undergone no abnormal change. Up to the end of 1882 he had operated in 132 cases of cancer of the breast. In 15 of these the operations were only partial—that is, only the indurated portions were removed, or the breast alone, or the breast with only one or two of the axillary glands. In 13 of these relapse quickly followed, and in 2 (13·33 per cent.) the patients had remained healthy. In the remaining 117 cases the axilla was cleared out, although in not a small number of these no trace of a perceptible change could be felt. But, on examination of the glands so removed, the commencement of cancerous degeneration was detected in all of them, with the exception of two cases. As to the results of this procedure, measured not only by the mortality, but by the duration of the freedom from relapse, they may be judged of by comparing them with the large statistics of cancer which have been published in recent years. These show a mortality of from 23·7 to 7·63 per cent., or a mean of 15·66 per cent. In Küster's 132 cases he had 20 fatal results, or 15·15 per cent. In relation to the durability of the cure—that is, this having lasted more than three years—it was found in the statistics to have been observed in between 5·59 and 16·19 per cent. In 60 operations Küster had met with such definitive cures in 13 cases—i.e., 21·66 per cent. Reckoning only those in whom it occurred prior to the end of the second year, the percentage is less, viz., 19·75. This is explained by the large number of women whose fate remains unknown; and if we wish to obtain a correct reply to the question of the durability of cures, we must take into consideration the two sets of cases—those which have proved fatal, and those in which the result remains unknown. Deducting 20 on this last account from 81 cases up to March, 1881, there remain 61, of whom 16, or 26·22 per cent., remained well. And Küster considers that this result justifies the view that primary removal of the axillary glands under all circumstances is to be regarded as the sole proper operation.

Prof. Gussenbauer, of Prague, stated that in his treatise, published in 1881, on the development of secondary affections of the lymphatic glands, he had maintained the necessity of removing, in operations for malignant tumours, all regional lymphatic glands. In cancer of the breast, he even extended the recommendation to the supra-clavicular glands; but at least their entire removal from the axilla should be the general practice.—Prof. v. Langenbeck had always removed the axillary glands when cancerous, but did not meddle with the supra-clavicular, as, if these were already affected, the infection has almost always also involved other glands which are not operable.—Prof. Esmarch, of Kiel, always extirpated the axillary glands, but when these have become so united to the large vessels and nerves that they cannot be removed, it is, in his opinion, permissible to disarticulate the entire arm. In a case in which he so operated, the patient recovered, and has remained free from relapse.—Prof. von Langenbeck believed that in the worst cases this indication would be justifiable. He himself had, besides the glands, excised the diseased muscles, nerves, and vessels in three cases. One of these patients remains well, another died of relapse, and the third from gangrene of the arm. Disarticulation of the arm would probably in these cases have furnished better results.—Prof. v. Bergmann, of Berlin, observed that, in his experience, whenever the supra-clavicular glands were diseased, almost always other not operable metastases also exist.—Prof. Küster stated that he had brought the subject forward because he was well aware that the procedures recommended by himself and Gussenbauer had not as yet gained currency in

various surgical clinics.—Prof. Gussenbauer observed that cancer of the breast seldom offered itself for early treatment, but whenever he had in such cases examined regional glands which were as yet scarcely enlarged, he almost always found that they were already carcinomatous. Hence his advice that they should always be removed.—Prof. Winiwarter, of Lüttich, observed that in his work on Carcinoma, published in 1878, he had proffered the advice that in every case of cancer of the breast, in which we are not absolutely certain that no infiltrated glands are present in the axilla, the cavity of the axilla should be freely “prepared” up to the large vessels.—Prof. v. Langenbeck believed that Gussenbauer's doctrines in relation to cancer of the breast and tongue had been generally received. He also read a letter which he had received from Prof. v. Nussbaum, of Munich, in which he recommended the employment of the thermo-cautery for the removal of the cancerous tongue or breast, believing it to be a preventive of hæmorrhage, and of future traumatic fever. Prof. v. Langenbeck could not agree to this recommendation, as a clean operation can be much better performed with the knife, while cauterisation causes suppuration, which again favours infection. In cases, however, which did not admit of operation, he had often found the actual cautery of good service in relieving pain.

## REPORT OF THE TYNE PORT SANITARY OFFICER FOR 1882.

THOUGH the public mind has ceased for the moment to speculate on the probabilities of the introduction into this country of cholera from the East, it is satisfactory to note from the annual report of the Medical Officer of Health to the River Tyne Port Sanitary Authority (Mr. Henry E. Armstrong), for the year 1882, that ample precautions were even then in force in this large northern port for the preservation of the public health ashore. Although previously existing, the establishment of the Tyne Port Sanitary Authority on a permanent basis has only recently been sanctioned by Parliament on the motion of the Local Government Board—a step which, it would seem, has met with universal approval. During the year 1882 ten patients were admitted to the floating hospital of the Authority, as compared with a total of thirteen during the previous year, amongst them being four cases of enteric fever and three of small-pox; with one exception, all of these were admitted to the hospital directly from shipboard. During the whole year a vigilant watch was kept on all vessels coming to the Tyne from ports where it was known that infectious disease had been lately prevalent—among which may be specified London, Rouen, and Bilbao (whence small-pox was introduced into the district the previous year), and Fécamp (where it had been prevalent during 1882),—and fortunately no small-pox was imported from any of these places. In the autumn, owing to the prevalence of cholera in foreign countries, and the possibility of its being brought thence to the Tyne, it was considered desirable to request the special attention of the officers of Her Majesty's Customs to vessels arriving from suspected places; strict attention was also paid to such vessels by the officers of the Sanitary Authority, the inspectors willingly undertaking partial Sunday duty for this purpose, there being a large number of Sunday arrivals at the time. Happily, no case of cholera occurred. To meet the requirements of the daily increasing shipping trade of the Tyne, the Sanitary Authority appointed an additional inspector, who entered on his duties in May, 1882, and, following the example of the Port of London, and to facilitate the work of the Health Department, a steam launch was also purchased by the Authority, which, though inadequate to the requirements of the Department, has been a considerable help. The following list of vessels inspected will give some idea of the importance of the Tyne as a shipping port:—British steamers, 2448; British sailing-vessels, 2308; foreign steamers, 776; foreign sailing-vessels, 1091. The number of vessels of all kinds inspected has risen from 2410 in 1879, to 6623 during the past year. One instance only of complaint as to the quality or condition of food supplied, was made during the past year to the officers of the Authority; this was by the crew of a British steamer, respecting some beef which was found to be of poor quality, and was changed for better on a suggestion to that effect.



## GENERAL CORRESPONDENCE.

## UTERINE DISPLACEMENTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The interesting correspondence on the “genu-pectoral position” having come under my notice at my club, I venture, with much diffidence, to point out that it is merely a case of re-discovery. The department of knowledge in which we naturally look for survivals of customs long after their meaning has been lost, is the *religious*. If we gaze around this department, we see both the Hebrew, the Mussulman, and the Parsee performing their devotional exercises in the “genu-pectoral position”! The position still survives, while the meaning has been lost. Can it be doubted that this points to the time when the “genu-pectoral position” was *universal*? Another instance is found in Aristophanes, who, no doubt unconsciously, records a fact of similar import when he describes the savants star-gazing with their “podices”—in other words, in the “genu-pectoral position.” (Aristophanes, “Clouds,” lines 191, seq.)

Στρεψιάδης. Μαθητής.

Σ. ὦ Ἡράκλεις, παντὶ ποδαπὰ τὰ θήρια;  
 Μ. τί ἐθαύμασας; τῷ σοι δοκοῦσιν εἰκέναι;  
 Σ. τοῖς ἐκ Πύλου ληφθεῖσι τοῖς Λακωνικοῖς.  
 ἀτὰρ τί ποτ' ἐς τὴν γῆν βλέπουσιν οὗτοί;  
 Μ. ζητοῦσιν οὗτοι τὰ κατὰ γῆς.  
 Σ. βολβούς ἄρα  
 ζητοῦσι, μή νυν τουτογὶ φροντίζετε  
 ἐγὼ γὰρ οἶδ' ἵν' εἰσι μέγαλοι καὶ καλοί.  
 τί γὰρ οἶδε δρῶσιν οἱ σφόδρ' ἐγκεκυφότες;  
 Μ. οὗτοι δ' ἐρεβοδιφῶσιν ὑπὸ τὸν Τάρταρον.  
 Σ. τί δῆθ' ὁ πρωκτὸς ἐς τὸν οὐρανὸν βλέπει;  
 Μ. αὐτὸς καθ' αὐτὸν ἀστρονομεῖν διδάσκεται.

Apologising for this intrusion on your space,

I am, &amp;c., THEOPHILUS PHILOLOGUS.

## GOD'S GIFTS TO MAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Last Monday I was taken, much against my will, by my young granddaughter, who proposes to join the medical profession (also much against my will), to hear the introductory lecture at the London School of Medicine for Women. I was prepared to hear, and perhaps to be somewhat wearied by, a repetition of the sage advice and solemn maxims with which the young lecturer has been accustomed to entertain the young student. Imagine my surprise, sir, when, instead of all this, I found a set attack being made on what I still, after half a century of practice, believe to be our most potent and indispensable weapons in the warfare against disease. Not platitude, for which I was well prepared, but latitude, is the word that best describes Dr. Donkin's lecture; and, to my mind, a very dangerous latitude. I hope you will agree with me that a sturdy stand ought to be made by everyone who has the welfare and the efficiency of our calling at heart, against this new scepticism. To say, as Dr. Donkin did, that the drug-treatment of disease is founded on ignorance and assumption, is to give a slap in the face to all the learned men and learned bodies who have spent their days in carefully investigating the use of medicines, and in compiling laborious pharmacopœias. If drugs are of no avail, the Medical Council loses its one great claim on our gratitude. I cannot but think that these junior practitioners, who declaim soggily against the utility of the *materia medica*, can have as yet but small experience of serious warfare. “He jests at scars that never felt a wound,” and he jests at swords and pistols who was never in action. I hope I shall be forgiven for suggesting that the treatment in hospitals is not a very serious matter for the physician, however serious it may be for the patient. It is when one comes to private practice, when one's whole reputation, not to mention one's bread-and-butter, depends on one's success, in perhaps a single case, that one really feels one's responsibilities. It is when you may be called up at any hour of night or day to relieve suffering,—it is when you realise that, if you cannot relieve it, some one else will be called in who can,—that you really begin to yearn for remedies in which you can have a sure faith.

Why, sir, if I had not had a sure faith in, aye, and a sure knowledge of, the efficacy of drugs, I verily believe that I should have before this ended my days in a lunatic asylum, or at any rate in a workhouse. Instead of that—well, I have no reason to complain. To talk of hygiene and all that, seems to me to be like locking the stable-door when the steed is stolen. Preventive medicine is all very well in its way, but it is nonsense and worse to preach to a patient about diet and temperance when he has a gouty kidney or hobnail liver. The old doctors used to call opium “God's gift to man.” I, believing that pain is not the only suffering, would go further, and reckon amongst His benefits not only opium, but iron, quinine, arsenic, strychnine, aloes, and even assafoetida.

I am, &amp;c.,

A PRACTITIONER OF FIFTY YEARS' STANDING.

## METAPHYSICS IN PATHOLOGY.

[To the Editor of the Medical Times and Gazette.]

SIR,—What does Dr. Saundby mean by the “application of the doctrine of the origin of species to the case of specific diseases”? If he means merely the assertion that the law of evolution applies to the case of specific diseases as well as to all other specificities, no one will be disposed to dispute his statement. If the doctrine of evolution be true at all, it requires no great acumen to see that its application must be universal. But if Dr. Saundby would imply that Niemeyer (or any other authority) has attempted to work out, detail by detail, the progress of the origin of species as affecting specific diseases, to explain their phenomena thereby, to reconcile thereby their apparent anomalies and contradictions, and to show that that process is now going on in our midst (not only, as Sir James Paget indicated in his recent Bradshawe Lecture, in the production of “new and rare diseases,” but even in the re-evolution of already existent types), then I can only ask him for a more specific reference to exact expressions.

I am tolerably well acquainted with Niemeyer, and have had occasion to quote from his work some general statements in my forthcoming pamphlet on the “Evolution of Morbid Germs.” But those statements merely *suggest* the application of the doctrine, or rather its applicability; they do not apply it in detail, or formulate a definite and harmonious theory, especially in the light of the germ theory.

Such theories may stand or fall with time, but they are at least the pioneers of knowledge, and no law of nature can be proved to be such till it is first formulated as a theory on a limited observation, and its truth tested afterwards by the universality of its application.

I am, &amp;c.,

Kineton, October 2.

KENNETH W. MILLICAN.

## MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special Examination Meeting of the College held on Wednesday, September 26, the Licences to practise Medicine and Midwifery were granted to—

Wright, Robert, Surgeon R.N., L.R.C.S. Ire.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 27 :—

Appleford, Stephen Herbert, Finsbury-circus, E.C.  
 Clayton, Geoffrey Sherborne, Fairfax-road, N.W.  
 Skardon, Charles Chapman, Westbourne-park-crescent, W.  
 Wilson, John Grant, Monmouth.

The following gentleman also on the same day passed the Primary Professional Examination :—

Forden, George, Stafford Infirmary.

## APPOINTMENTS.

\* \* The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

COOPER, AUSTIN N., L.R.C.S. Ire., House-Surgeon to the House of Industry Hospitals, Dublin, in succession to Dr. A. Newton Dickenson, resigned.



## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

**BRISTOL ROYAL INFIRMARY.**—Assistant Resident Officer and Pathologist. (For particulars see Advertisement.)

**CHELTEMHAM GENERAL HOSPITAL.**—Assistant House-Surgeon. Salary £80 per annum, with board and lodging in the Hospital. Candidates must possess at least one registered qualification and be unmarried. Applications, stating age, with testimonials, to be sent to the Hon. Secretary, on or before October 24.

**CHICHESTER INFIRMARY.**—House-Surgeon and Secretary. Salary £100 per annum, with board, lodging, and washing. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Chairman of the Committee, on or before October 22. The election will take place on November 8.

**CHICHESTER INFIRMARY.**—Assistant House-Surgeon. Salary £20 per annum, with board, lodging, and washing. Applications to be sent to the Chairman of the Committee, on or before October 22.

**DURHAM COUNTY ASYLUM, SEDGEFIELD, NEAR FERRYHILL.**—Junior Assistant Medical Officer. Salary £100 to £150. Applications, enclosing testimonials, to be made to Dr. Smith, Superintendent.

**KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY, N.W.**—Resident Medical Officer. Salary £120 per annum, with rooms, coals, gas, and attendance. Candidates must be unmarried. Applications, with qualifications and testimonials as to character and professional ability, to be sent to the Hon. Secretary, 13, Kilburn-park-road, Maida Vale, W., on or before October 10.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

**Brackley Union.**—Mr. Walter Moore has resigned the Second District: area 14,102; population 2883; salary £60 per annum.

**Downham Union.**—Mr. Alexander J. Mackintosh has resigned the Wigenhall District: area 18,691; population 3644; salary £46 per annum.

**Smallburgh Union.**—Mr. William Wilcox has resigned the Bacton District: area 10,841; population 2416; salary £40 per annum.

## APPOINTMENTS.

**Aylesbury Union.**—Charles E. Walker, L.R.C.P. Edin., M.R.C.S. Eng., to the Fifth District.

**Sheffield Union.**—William Collier, L.F.P. & S. Glasg. and L.S.A. Lond., to the Central District.

ON November 6, Dr. B. W. Richardson will lecture at the Victoria Coffee Hall on "Food and Feeding." Entrance one penny.

THERE were only sixty-four deaths from cholera in Bombay city last week, as compared to seventy-four the week previous. The epidemic in the Deccan districts also is rapidly dying out.

ON Tuesday last, Dr. Haughey, a practitioner of Crewe, was thrown violently out of his carriage, and, falling on his head, received such serious injuries to his brain that but faint hopes are entertained of his recovery.

AT Guy's Hospital the open Scholarship of 125 guineas in classics, mathematics, and modern languages has been awarded to Mr. George Herbert Pennell; and that of 125 guineas in chemistry, physics, botany, and zoology to Mr. Ernest Henry Starling.

THE Indian Government has issued a notice, stating that the cholera cases at present occurring in Bombay are not of an epidemic character, and that the health officer for the port will in future grant clean bills of health. There were only ten deaths from cholera in the city last week.

LEGACY TO GLASGOW CHARITIES.—By the settlement of the late Mrs. Macnair, of Glasgow, the residue of her estate, amounting to close on £3000, has been divided equally between the Glasgow Royal Infirmary, the Glasgow Blind Asylum, and the Glasgow City Mission.

NEW INVENTIONS AND IMPROVEMENTS.—We are requested by Messrs. C. Wright and Co., of New Bond-street, to state that a portable irrigator and enema apparatus, similar to the one noticed on page 388 in the last number, has been made by them for some years past.

EDINBURGH.—At the Edinburgh Police-court, on Monday, a butcher was fined £20, or sixty days' imprisonment, for exposing eighty-two and a half pounds of horse-flesh which was unsound and unfit for human food. Part of the meat was found hanging in the shop beside good meat, and other two pieces in the back-shop, while the mincing machine was filled with horse-flesh. The Bailie remarked that the poor people in the Cowgate must be protected as much as the people in the better parts of the city.

THE committee of the recent Festival Choral Society, Wolverhampton, has handed over to the local Hospital £368 15s. 4d., received from collections and donations during the musical festival. It is probable that a further sum on the balance of the accounts will be handed over to the Hospital.

UNIVERSITY OF ABERDEEN.—The University Court has appointed the following to be Extra-Professorial Examiners in Medicine in the University for the ensuing year, viz.:—Dr. John Alexander, Glasgow; Dr. James Anderson, London; Dr. A. Campbell, Dundee; Dr. G. M. Edmond, Stonehaven; Dr. R. M. Wilson, Old Deer; Mr. Fredk. Treves, London.

ABERDEEN SICK CHILDREN'S HOSPITAL.—This Hospital, in support of the funds of which Princess Béatrice opened a bazaar at Aberdeen on Thursday week, was founded in 1877, mainly through the instrumentality of Dr. Stephenson, Professor of Midwifery in the University. Contributions amounting to nearly £2000 have recently enabled the directors to set about the work of making provision for additional accommodation; and they are now negotiating for the acquisition of land to the east of the present Hospital. If the negotiations prove successful, it is intended to erect a building, separate from the Hospital, for the reception of infectious cases, for which purpose it is estimated that from £2000 to £2500 will be required.

DUNOON SEASIDE HOMES.—The annual meeting of the donors and subscribers to the Convalescent Homes, Dunoon, was held in Glasgow on Monday, under the presidency of Sir Peter Coats. It was reported that during the year 2679 convalescents had been admitted, and of these 2478 had been perfectly restored, while six had died. The ordinary revenue of the year had been £4701, while the total expenditure, ordinary and extraordinary, amounted to £4632. An appeal was made to the public to enable the directors to erect a separate home for mothers and children. Resolutions commending the institution to the continued confidence and support of the community, and expressing thanks to subscribers and others who had contributed to the efficiency of the management, were adopted.

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC.—On Saturday, September 29, the Provost and Senior Fellows of Trinity College, Dublin, proceeded to elect, in the presence of the President of the King and Queen's College of Physicians, a Professor of Anatomy and Chirurgery, in the room of Professor Alexander Macalister, recently appointed to the corresponding chair in the University of Cambridge. The choice of the electors fell upon Dr. D. J. Cunningham, Professor of Anatomy in the School of Surgery, Royal College of Surgeons in Ireland, and formerly Senior Demonstrator of Anatomy in Edinburgh University, and Professor of Physiology in the Royal Veterinary College, Edinburgh. Dr. Cunningham may well be congratulated on the high position to which his many and varied talents have enabled him to attain, and the University of Dublin on having secured so valuable an addition to the staff of teachers in the School of Physic.

FIRST AID TO THE INJURED.—Several interesting cases in which "first aid" had been rendered by certificated pupils have recently been reported to the St. John Ambulance Association. In the accident at Middlesborough-on-Tees, on September 19, when Mr. Davison lost his life by the upsetting of a ladle of molten iron, several workmen who were injured were attended to by Police-constable Salt, chief watchman at the works. A few days since, at Hampstead, a milkman, who, jumping from his cart, fell, and cut with a broken glass bottle the main artery of the left hand, was treated by Engineer F. Smart, of the Fire Brigade Station, Heath-street. At Worthing, patients suffering from double fracture of both bones of the leg, poisoning, and fracture of the thigh respectively, were reported by a local surgeon to have been most efficiently treated pending his arrival. With reference to the recent explosion at Woolwich, where the effects might have been most disastrous, it was mentioned that nearly all the Arsenal Police had undergone instruction; and their proficiency had been commented on with great satisfaction by the coroner at a recent inquest, at which evidence was given, showing that two of the constables, certificated pupils, had saved a life of a boy from their knowledge of how to treat the apparently drowned.



**CHLOROFORM POMADE.**—The following is the formula of Lasègue and Regnaud's pomade:—chloroform 20 to 30 parts, and vaseline 60 to 80 parts. It is employed for rheumatic and neuralgic pains, and in the vague thoracic pains of tuberculous patients.—*Union Méd.*, September 11.

ACCORDING to the latest report of the Metropolitan Fever Hospitals, during the last four weeks 294 patients had been admitted, 42 had died, and 223 had been discharged, leaving 452 under treatment, of whom 374 were scarlet-fever patients, one was a typhus patient (in the West of London), 75 were enteric-fever patients, while two were described as suffering from "other diseases." The numbers admitted and the cases left under treatment showed a great increase over the figures last presented. In regard to small-pox, there had been 38 patients admitted in the four weeks, 5 had died, and 30 had been discharged, leaving 59 under treatment, or 3 more than at the last return.

At a temperance meeting in St. Petersburg, Mr. Sydney Buxton appears to have stated that the average age of Englishmen has lately increased by as much as two years. This increase he attributed to the spread of temperance principles, though he was good enough to add that the progress of medical science might have contributed something. The next generation, he thought, would probably witness a still greater improvement, for the present age was suffering from the serious excesses of the past generation. Mr. Buxton evidently does not agree with biblical science, which makes longevity conditional on honouring one's parents. If we want to live long, he contends, the last thing we must do is to follow the example of our progenitors.

## APPOINTMENTS FOR THE WEEK.

### October 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

### 8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

### 9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

### 10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HUNTERIAN SOCIETY (London Institution), (Council Meeting, 7.15 p.m.), 8 p.m. Dr. Stephen Mackenzie, "On some of the Rarer Skin Diseases."

### 11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Address by the President, Mr. Hutchinson, F.R.S. Dr. Stephen Mackenzie, "On some Cases of Retinal Hæmorrhage." Dr. Sharkey, "On a Case of Homonymous Hemianopia due to a Cortical Lesion." Mr. Nettleship, (1) "On a Case of Homonymous Hemianopia due to Lesion of Chiasma or Tract"; (2) "On a Case of Sympathetic Iritis following Immediate Excision of Eye for Injury." Living Specimens at 8 p.m.:—Dr. J. A. Ormerod—Left Hemiplegia, with subsequent Contraction of the Field of Vision of the Opposite Eye. Dr. Brailey—Two Exceptional Cases of Glaucoma."

### 12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Dr. Goodhart, "On Three Cases of Peritoneal Abscess in Children." Dr. Bastian, (1) "On an Anomalous Case of Disseminated Cerebro-Spinal Sclerosis"; (2) "On a Case of Rupture of a large Aneurysm in the Left Corpus Striatum, with Intraventricular Hæmorrhage and Extreme Lowering of Rectal Temperature"; (3) "On a Case of Apoplexy in a Boy aged Fifteen, with Intraventricular Hæmorrhage, Convulsions, and Death in Four Hours." Dr. Althaus, "On a Case of Syphilis of the Cerebral Arteries, with Gummatous Tumours permeating the Dura Mater."

## VITAL STATISTICS OF LONDON.

Week ending Saturday, September 29, 1883.

### BIRTHS.

Births of Boys, 1234; Girls, 1165; Total, 2399.  
Corrected weekly average in the 10 years 1873-82, 2610.0.

### DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	662	595	1257
Weekly average of the ten years 1873-82, } corrected to increased population ...	719.2	674.3	1393.5
Deaths of people aged 80 and upwards ...	...	...	48

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	1	1	5	3	2	...	...	...	7
North ...	905947	1	2	11	5	...	...	...	...	15
Central ...	282238	...	...	2	...	1	...	1	...	4
East ...	692738	1	9	12	3	2	...	2	...	19
South ...	1265927	...	6	23	6	9	...	3	...	16
Total ...	3816483	2	18	49	19	22	2	15	...	61

### METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	29.507 in.
Mean temperature ...	...	...	...	...	...	...	57.1°
Highest point of thermometer ...	...	...	...	...	...	...	69.7°
Lowest point of thermometer ...	...	...	...	...	...	...	42.1°
Mean dew-point temperature ...	...	...	...	...	...	...	50.7°
General direction of wind ...	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	...	0.92 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 29, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Sept. 29.	Deaths Registered during the week ending Sept. 29.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2399	1257	16.6	69.7	42.1	57.1	13.95	0.92	2.34
Brighton ...	111262	48	43	20.2	68.0	47.0	57.2	14.00	1.33	3.38
Portsmouth ...	131478	100	44	17.5	...	...	...	...	...	...
Norwich ...	89612	46	38	22.1	...	...	...	...	...	...
Plymouth ...	74977	51	34	23.7	66.0	47.1	57.1	13.95	1.93	4.90
Bristol ...	212779	130	63	15.4	64.5	47.0	55.4	13.00	2.03	5.16
Wolverhampton ...	77557	56	27	18.2	63.7	38.0	52.9	11.61	1.75	4.44
Birmingham ...	414846	259	160	20.1	...	...	...	...	...	...
Leicester ...	129483	83	35	14.1	...	...	...	...	...	...
Nottingham ...	199349	132	77	20.2	67.8	41.2	54.6	12.56	1.28	3.25
Derby ...	85574	51	25	15.2	...	...	...	...	...	...
Birkenhead ...	88700	58	30	17.6	...	...	...	...	...	...
Liverpool ...	566753	329	284	26.1	64.3	48.4	55.6	13.12	2.22	5.64
Bolton ...	107862	62	51	24.7	62.2	45.8	53.4	11.89	4.14	10.52
Manchester ...	339252	225	163	25.1	...	...	...	...	...	...
Salford ...	190465	138	69	18.9	...	...	...	...	...	...
Oldham ...	119071	81	40	17.5	...	...	...	...	...	...
Blackburn ...	108460	63	39	18.8	...	...	...	...	...	...
Preston ...	98564	54	54	28.6	...	...	...	...	...	...
Huddersfield ...	84701	47	25	15.4	...	...	...	...	...	...
Halifax ...	75591	39	27	18.6	...	...	...	...	...	...
Bradford ...	204807	108	62	15.8	62.8	48.8	54.4	12.44	3.86	9.80
Leeds ...	321611	203	117	19.0	64.0	49.0	55.3	12.95	2.54	6.45
Sheffield ...	295497	216	124	21.9	65.0	46.5	54.8	12.67	2.68	6.81
Hull ...	176296	110	85	25.2	66.0	42.0	54.7	12.61	1.67	3.61
Sunderland ...	121117	108	58	25.0	...	...	...	...	...	...
Newcastle ...	149464	91	95	33.2	...	...	...	...	...	...
Cardiff ...	90033	71	28	16.2	...	...	...	...	...	...

For 28 towns ... 5620975 5358 3154 19.1 69.7 38.0 55.2 12.89 2.19 5.56

Edinburgh ...	235946	120	85	18.8	...	...	...	...	...	...
Glasgow ...	515589	363	220	22.3	63.5	42.0	53.8	12.12	0.84	2.13
Dublin ...	349885	178	159	23.7	67.7	39.8	54.7	12.61	1.01	2.57

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.51 in.; the highest reading was 29.91 in. on Sunday morning, and the lowest 29.06 in. by the end of the week.



## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

*Hospital Accommodation for Officers.*—This provision has been made at Woolwich, Dublin, Devonport, and Netley; abroad, at Malta, Gibraltar, and Natal—an arrangement long wanted.

*Noteworthy.*—In aid of the objects of the National Smoke Abatement Institution, the Gas Light and Coke Company and the South Metropolitan Gas Company have each sent a donation of £100.

*A Modern Dousterswivel.*—A letter has been received by a gentleman residing at Richmond, in which the writer offers to find a supply of water for that town and district by means of the divining-rod.

*The Paris Morgue.*—The present building is to be pulled down, and the establishment will be transferred to the Caserne de la Cité. In 1804 the Morgue was removed to the old slaughter-house of the Marché Neuf. The present Morgue was established in 1864.

*Proposed International Sanitary Code.*—It is stated that all the Powers have signified their adhesion to the proposal of the Italian Government to summon a conference at Rome with the object of making sanitary regulations and drawing up an international sanitary code.

*Their own Dust Collectors.*—The Clerkenwell Vestry has effected a saving this year, as compared with the expenditure of the previous year, of £250, by itself undertaking the removal of dust and the scavenging and watering of the parish. This work had previously been done by contract.

*Open Spaces.*—Proposals to adapt two churchyards in the parish of Bethnal Green—namely, St. Matthew's Church and St. Bartholomew's district Church—into open spaces for the use of the people, are being considered by the Vestry. In this densely crowded district the appropriation of these burial-grounds for the recreation of the inhabitants would be a boon, which, no doubt, will be appreciated.

*Small Luxuries to Aged Paupers.*—The Liverpool Select Vestry propose to organise a "monster deputation" from boards of guardians to the President of the Local Government Board, to remonstrate with him on the present rigorous regulations limiting the grant of "small luxuries" to aged and infirm paupers. This considerate proposal exhibits a satisfactory contrast to the rigid economy in times past of Poor-law guardians.

*Failure of a Prosecution against a Chemist for Selling Inferior Tincture of Quinine.*—The prosecution by the Vestry of St. John's, Hampstead, against a chemist trading in that district, for selling tincture of quinine not containing the proper quantity (eight grains to the ounce) of sulphate of the same material, has failed, the Government analysts at Somerset House having certified that the article in question was constituted according to the recognised standard.

*Improved Middle-Class Dwellings.*—The trustees of St. Mary-le-Strand Estate, situate in the Old Kent-road, are prepared to receive offers for a portion of their estate, upon which to erect fifteen blocks of improved middle-class dwellings, each to contain ten suites of apartments. At the request of the Charity Commissioners these dwellings are designed so as to meet the requirements of clerks and others of a similar class—a description of dwellings which, it appears to us, the metropolis is in much want of.

*Fatality from Eating Diseased Meat.*—At the adjourned inquest on the body of Thomas Furlong, one of twenty-eight labourers who, it was alleged, had been poisoned at Rasagarland, Wexford, the rumour that poison had been put into the water that they drank was contradicted; and it was shown that a cow which was suffering from splenic apoplexy had been killed, and the flesh given to the labourers with some beer. The deceased, with several others, was seized with illness, to which he succumbed. Verdict, "Died from eating diseased meat."

*The Elementary Schools.*—The over-pressure in these schools has been somewhat freely discussed, and, so far as we know, the balance of opinion is decidedly opposed to the present system of education in them. The North Wales school-teachers held a meeting a few days since, at Gresford, near Wrexham, which resulted in a resolution strongly condemning the tendency of modern education to unduly increase the subjects of instruction in elementary schools; and asserted that the continual strain in preparation is injurious alike to pupils and teachers.

*Street Accidents: London.*—In view of the constantly recurring running-over accidents in the thoroughfares of the metropolis by the reckless driving of cabmen, it may be asked if these men obtain their licences without any examination as to their qualifications for driving and the control of their horses? Is the licence granted merely upon previous good character and respectability? Surely, before men are licensed as drivers of public vehicles, not only should their driving be tested, but their sight and hearing also. Many complaints are heard that cabmen appear at times to deliberately drive into people, and it appears that such instances may occur from defective sight or hearing.

*The Early Closing Movement.*—We are glad to observe that Mr. J. H. Stacey, the Secretary to the Early Closing Association, has contradicted the reported failure of the early closing movement. It appears that in the eastern and southern districts of the metropolis great progress is being made. Independent closing, in the absence of any general agreement, is also extensively practised in the North of London, as well as at the West-end. The many years' persistent efforts of the Association on behalf of shop employes is worthy of commendation, and of the more generous and unselfish support of employers.

*Cheshire Dairies.*—The dairy-farmers of the country will do well to give attention to the report of Mr. Davenport, the inspector to the Nantwich Rural Sanitary Authority. He states that "the exception in Cheshire is to find any dairy sufficiently far removed from the piggeries." The dairies are consequently exposed to a polluted atmosphere. Foul air, as is well known, quickly and deleteriously affects the quality of the milk. Too great precautions can scarcely be taken to protect it from taint, considering how important an article of food milk is. Farmers, as a rule, exhibit a careless indifference as to their farm buildings being free from contamination. The Nantwich Board will, we hope, enforce the necessary sanitary improvements in the dairies under its control.

*Centenarian.*—Satisfactory proof in verification of extreme old age is so generally wanting that the following remarks are not without interest:—The centenarian is usually poor, always in full possession of his faculties, garrulous in the matter of early recollections, and there is nobody to contradict him, because he starts on the basis of having been born a good score of years before his sceptical detractors. What we want to hear of is, a centenarian who can point to recorded evidence of his birth and extraneous evidence of his identity with the subject of the recorded birth—such evidence, in fact, as would stand the test of judicial inquiry and procure a decree of inheritance. We are always suspicious when the claim for extraordinarily old age is based on the centenarian's recollection of what occurred at any great historical event, elaborately recorded in history, and supplemented by fiction. The imagination is as active as the memory is treacherous.

*"The Dirtiest Dustyard in London."*—The attention of the Bermondsey Vestry has been called by Dr. Stirling to the "dirtiest dustyard in London." Dr. Stirling, on going to this yard, found the dust formed into a great mound twenty feet high, and "around it an immense quantity of 'soft core,' smelling as only decaying vegetable matter can smell." No disinfectants had been used. The doctor paid a second visit, which disclosed a far worse state than he discovered on his first. Several vestrymen remarked upon this pestiferous spot as "an abomination." Some two thousand loads of putrefying refuse were heaped up there, and green vegetation was sprouting from the top of the horrid mass, "the stench being abominable." Ultimately a committee was appointed to deal with the nuisance, with a view to its abatement. Ever and anon are discovered, apparently with surprise, such abominations as this dustyard. Yet to collect two thousand loads of refuse on the spot must have been a work of considerable time, and the fact seems to involve want of vigilance on the part of the nuisance inspector of the district.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE SOCIAL SCIENCE ASSOCIATION, London; Dr. F. A. PURCELL, London; Mr. R. MAGUIRE, Manchester; THE SECRETARY OF THE PHARMACEUTICAL SOCIETY, London; Mr. W. H. BENNETT, London; Dr. CHAMPNEYS, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. HERMAN, London; Mr. A. P. GOULD, London; Dr. EARDLEY WILMOT, Leamington; THE DEAN OF THE MEDICAL SCHOOL OF ST. MARY'S HOSPITAL, London; Dr. ACLAND, Oxford; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE LONDON HOMOEOPATHIC HOSPITAL MEDICAL SCHOOL, London; Mr. BARTLETT, Birmingham; THE HONORARY SECRETARY OF THE CLINICAL SOCIETY, London; Mr. MUNRO SCOTT, London; Dr. A. T. THOMSON, Glasgow; Dr. K. W. MILLICAN, Kington; Messrs. C. WRIGHT AND CO., London; Sir HENRY PITMAN, London; Mr. J. CHATTO, London; THE HONORARY SECRETARY OF THE ABERNETHIAN SOCIETY, London; THE SECRETARY OF THE FACULTY OF PHYSICIANS AND SURGEONS, Glasgow; Dr. BRAILEY, London; THE EDITOR OF THE "PHARMACEUTICAL JOURNAL," London; Dr. ALEXANDER, Liverpool; Dr. J. M. REDMOND, Dublin; Dr. CHOLMELEY, London; THE SECRETARY OF THE POOR-LAW OFFICERS' ASSOCIATION, London; Dr. W. HALE WHITE, London; THE TOWN CLERK, Hastings; Mr. A. J. PEPPER, London; Mr. THOMAS WAKLEY, jun., London; THE SECRETARY OF THE ARMY MEDICAL SCHOOL, Netley; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—Daily Bristol Times and Mirror, September 26—New York Medical Journal—Glasgow Medical Journal—Medical Temperance Journal—Physician and Surgeon—North British Daily Mail, September 27—Students' Journal and Hospital Gazette—Boy's Own Paper—Girl's Own Paper—Sunday at Home—Leisure Hour—Friendly Greetings—Bombay Gazette—Veterinarian—Revue Mensuelle de Laryngologie, d'Otologie, etc.—Archives Générales de Médecine—Monthly Homoeopathic Review—El Ensayo Médico—Toronto Sanitary Journal—Birmingham Medical Review—Edinburgh Medical Journal—Cassell's Saturday Journal.



# LECTURES ON THE PROTECTIVE AND LACRIMAL APPARATUS OF THE EYE.

*Delivered at the Royal College of Surgeons.*

By HENRY POWER, M.B. Lond., F.R.C.S. Eng.,  
Arris and Gale Lecturer at the College; Senior Ophthalmic Surgeon, and  
Lecturer on Ophthalmic Surgery, St. Bartholomew's Hospital.

## LECTURE III.

I now proceed to consider the remarkable channel by which the tears, having fulfilled their function of facilitating the movements of the lids and of cleansing the surface of the cornea so that vision may be clear and the images of external objects well defined on the retina, are conducted to the nose, and in an inspissated condition, and mingled with mucus and impurities, are either discharged by the nostril, or pass backwards along the floor of the nose and are swallowed.

This channel is bifurcate above and single below, thus dividing it broadly into two parts, of which the upper separate portions are called the canaliculi, the lower single and undivided portion the lacrimo-nasal duct.

The canaliculi commence at the inner borders of the upper and lower lid by a minute orifice, which is constantly patent, termed the punctum lacrimale. This is situated at the apex of a small conical elevation at the junction of the plane with the rounded portion of the free margin of the lid. It is situated on the same plane as the openings of the Meibomian follicles, and therefore near the posterior edge or lip of the free border. The nearest Meibomian follicle is about 1 mm. from the punctum. The aperture is somewhat elliptical in form, with the long axis running from before backwards. Its width varies from 0.15 to 0.25 mm. ( $\frac{1}{100}$  in. to  $\frac{1}{70}$  in.), the lower being wider than the upper one, in correspondence with the rather larger size of the lower canaliculus as a whole. The inferior canaliculus is a little longer than the upper, and hence the punctum of the lower lid is a little more distant from the inner angle of the palpebral fissure. The difference is not more than half a millimetre, the lower punctum being 6.5 mm., the upper 6 mm. from the inner angle. Still it fulfils an important purpose, for it prevents the apposition of the two orifices when the lids are closed, and permits the passage of some fluid down them even during sleep. The superior rests upon or against the surface of the plica semilunaris, the inferior upon the free or concave border of this fold. Both orifices look a little backward, the upper one in addition downwards and outwards, the lower upwards and inwards. Both are endowed with remarkable elasticity, and will admit the entrance of a larger probe than at first sight seems possible. The little elevation or tubercle (0.2 to 0.3 mm. high) on which the punctum is situated is of pyramidal or triangular form, and though often scarcely apparent, yet, when the lids are pulled outwards and the muscular fibres of the orbicularis are in strong action, they become very prominent. It is composed of dense connective tissue, with some elastic tissue with horizontal muscular fibres which extend to near the punctum.

The canaliculi extend from the puncta to the lacrimal sac, in which they terminate by a single, or occasionally by a double, orifice. Their course is somewhat oblique, both vertically and horizontally, and it is hence extremely difficult, and perhaps impossible, to obtain a section in the adult which shall enable the whole course of the duct to be seen at one glance. Gerlach was, however, so fortunate as to obtain one from an embryo of the sixth month, in which they could be followed in their entire length.

For convenience of description, the canaliculi may be divided into several parts. English authors, as a rule, merely refer to the vertical and horizontal portions; but the more accurate German writers, such as Heinlein, describe in succession the infundibulum, the arch, the diverticula, the horizontal portion, and the collecting-tube, or, as in the case of Gerlach, whose account is exceedingly good, distinguish the several parts of the tube by their relation to muscular tissue—the first or vertical part being surrounded

by circular muscular tissue, the horizontal part by longitudinal muscular fibres, and the common or collecting tube being free from muscular tissue.

The vertical part of the tube, taking it as a whole, is conical in form, with the apex at the punctum, and is about  $2\frac{1}{2}$  mm. in length. It has been divided by Heinlein into the infundibulum and the arch. The infundibulum is the intrapapillary portion of the tube, and is not more than half a millimetre in length, and its diameter at the base a trifle less—0.4 mm. According to Gerlach, this vertical part of the tube contracts a little as it descends, and then widens again to form the infundibulum. At the most constricted portion the diameter of the lumen does not exceed 0.08 or 0.1 mm., and this is the narrowest part of the whole canaliculus. He therefore applies to it the name of *angustia canaliculi lacrimalis*, on account of its practical importance, for it is the part which presents the greatest resistance to the passage of a probe. Though mentioned by Foltz, it has been overlooked by all observers subsequent to Gerlach, because it is only seen in transverse vertical sections made through the exact middle of the tube. Physiologically it is of importance, since it is the point at which circular muscular fibres first make their appearance.

The next segment of the canaliculus has been termed by Heinlein, with considerable propriety, the *arch*. It is a segment of a circle having a radius of about 4.5 mm. The convex side of the upper canaliculus looks upwards and outwards, that of the lower downwards and outwards. Its length from the base of the cone to the commencement of the horizontal segment is 1.2 mm., whilst the chord of the arc measures 0.8 mm.

There are two *diverticula* at this point, which are separated from each other by a slight constriction. Those who do not, like Gerlach, describe an *arch*, regard the upper diverticulum as belonging to the vertical portion of the tube, and the lower one to the horizontal portion of the tube, the constriction between the diverticula marking the limit between the vertical and the horizontal portions. It would appear that in adult life the term "*arch*," employed by Heinlein, is most correct, whilst in the embryo the tube is bent much more rectangulary. The first diverticulum is directed outwards; its lumen has a diameter of 0.6 mm. The second diverticulum is considerably larger than the first; it is directed downwards, or, in the upper lid, upwards; its lumen has a diameter of 0.7 or even 0.8 mm., and, with the exception of the collecting-tube, is the widest part of the canaliculus; whilst the constricted part between the diverticular and the horizontal part of the tube has a general diameter of 0.3 or 0.4 mm. These diverticula appear to be very constant, and may have given rise to the statement of Hyrtl (who injected them with wax) that the tube was spiral.

The next segment is the *horizontal*. This is the longest part of the tube, and extends from the large diverticulum to the point of junction of the two tubes, or where they open separately to the lacrimal sac. The term "*horizontal segment*" is not strictly accurate; for the upper canaliculus inclines downwards, the lower one upwards. The length of this segment depends on the union or non-union of the tubes to form a collecting-tube, and varies from 2 to 2.8 mm. The lumen varies a little in diameter, ranging from 0.3 to 0.4 mm., but does not exceed or fall below these measurements. The canaliculus presents slight undulations in its course.

The next part of the tube has given rise to much discussion. Haller, writing in 1772, said that the canaliculi sometimes opened by a single aperture into the sac, sometimes by two. But, with this exception, most of the older German writers, as Krause, Rosenmüller, Weber, Hildebrandt, Serres and Bock, and others, held that the presence of a collecting-tube was the exception. Huschke also (1844) states that in eight cases only one possessed a common tube, whilst in the remainder the canaliculi had separate apertures. The French anatomists, on the other hand, and the more recent German writers, have found the presence of a short tube common to the two tubes almost invariable. Foltz never saw separate openings, though he examined seventy eyes. Bochdalek and Lesshaft regard the collecting-tube as normal. Sappey states that from his own fifteen dissections on both sides he has arrived at the conclusion that the presence of a tube common to both canaliculi is constant



Heinlein found in all his dissections only one doubtful case. Gerlach in twenty heads never found it absent. We may take it, therefore, that its presence or absence is not, as has been suggested, a racial or national character, but that it is constant, though in some instances it may be very short. Moreover, as Heinlein remarks, the outer wall of the sac projects a little towards the canaliculi; so that in doubtful cases it must rest with the observer to say whether there is really a collecting-tube or only a lateral projection of the sac with two openings. The length of the collecting-tube in Heinlein's preparations varied from 0.8 to 1.2 mm. Its diameter at the point of junction of the two canaliculi is 0.6 mm.; it then becomes a little narrower, and finally dilates slightly as it opens into the sac. The *collecting-tube* is horizontal and straight; it lies with the sac in the triangular space which exists between the two laminae of the internal palpebral ligament and the bony groove for the sac. The opening of the canaliculi into the sac is a vertical slit, and sometimes a circular opening. The total thickness of the wall of the lacrimal canaliculi is 0.3 to 0.4 mm. In regard to the structure of the canaliculi, they possess a firm coat of condensed connective tissue, with some elastic tissue constituting a *membrana* or *tunica propria*. This membrane is lined internally by epithelium, and is surrounded by transversely striated muscular tissue, the fibres of which are offsets of the orbicularis palpebrarum. The *epithelium* is laminated and of considerable thickness. In a series of sections Gerlach counted ten superimposed layers, and in some parts eleven and twelve; the thickness of the epithelium varies from 0.12 to 0.13 mm., or one-third of the total thickness of the wall. The deepest layer of cells is remarkable for their elongated form and large nuclei; the two next layers are also columnar; the fourth layer is flattened and ribbed, and the most superficial cells are tessellated. There are no cilia. The *tunica propria* is only half the thickness of the epithelial layer, being on the average 0.060 mm (Gerlach), though Robin and Cadiat make it as much as 0.18 to 0.28 mm. in the adult. It consists of fine and closely compressed connective-tissue fibres, which have a general circular arrangement. These fibres are mingled with numerous fine elastic fibres, conferring on the ducts their elasticity; and some rod-shaped nuclei may be seen, which probably belong to unstriated muscular tissue. After removal of the epithelium the surface of the membrane appears finely ribbed. It contains no glands or papillae. Numerous arterioles and venules ramify in the adherent face of each canaliculus, and run both circularly and longitudinally; the capillaries arising from them subdivide into superficial plexuses. From two to four nerve-filaments, having a diameter of 0.02 to 0.06 mm., run at some distance from each other along the side of each canaliculus.

We have now to consider the relations of the canaliculi to the musculus orbicularis palpebrarum, and in order that these may be understood it is important that a clear understanding should be obtained of this important and complex muscle. By far the best description of it is that which has been given by P. Lesshaft in an elaborate paper published in 1868 in Reichert and Du Bois Reymond's *Archiv*, which contained the results of careful dissections of fifty-four heads with 104 eyes, as well as the heads of the Dog, Cat, Rabbit, Sheep, Calf, and Horse.

This muscle is divided by most anatomists into an orbital and a palpebral portion, or into an external and internal lamina. A portion of this latter, lying near the edge of the lids, was termed by Riolan the musculus ciliaris, and some authors, as Thiele, have applied his name to this band of fibres, naming it the muscle of Riolanus; but Merkel, Cruveilhier, and Hyrtl apply the term "muscle of Riolanus" to the whole inner part of the orbicularis muscle. The precise words of Riolanus(a) are:—There is a muscle which draws the superior eyelid inwards, which, arising from the bottom of the orbit, runs straight to the tarsus of the lid. The lid is depressed by the orbicular muscle, which, arising from the great angle and running along the lower lid, the width of which it equals, turns round the lesser canthus, and terminates at the same point from which it arose. In action it depresses the upper lid at the same time that it raises the lower lid. According to some authors there is a second orbicularis muscle, which, arising from the root of

the nose, surrounds the cilium of each eyelid, and exactly closes them. Moll, whose diagram is well known, terms the innermost band the pars subtarsalis, and locates it between the Meibomian glands and the cilia bulbs at the palpebral free border. Lesshaft,(b) who gave an exhaustive historical account of the muscle, points out that the orbicularis muscle has been divided into two, three, four, and even five parts. He states, correctly, that when the muscle is wholly detached from its connexions it forms a plane sheet, so that, physiologically, it is unnatural to divide the muscle into separate sheets and to ascribe an independent action to each. For the purposes of description, however, he divides it into a *palpebral* and a *ciliary* portion.

The origin of the *palpebral portion* is at the inner angle of the eye, partly from the tendo orbicularis, which is attached to the crista lacrimalis anterior, and partly from the inner surface of the ascending process of the superior maxillary bone, at about one-third of an inch distance from the fronto-maxillary suture.

Other fibres arise from a tendinous inscription on the anterior wall of the lacrimal sac, from a surface about one-fifth of an inch broad, about one-eighth of an inch below the upper extremity of the sac. Still other fibres arise from the anterior surface of the convex border of the lacrimal canals. Lastly, fibres arise from the whole anterior surface and borders of the canaliculi.

The *tendo orbicularis* is flat, and presents an anterior surface directed somewhat upwards, the inner half of which is smooth, whilst the outer half is closely connected with the superimposed skin. The posterior surface looks somewhat downwards, and fuses with the tendinous inscription on the anterior wall of the lacrimal sac.

All these fibres—those which arise from the ascending ramus of the superior maxillary bone, from the wall of the sac, and from the canaliculi—pass upwards and downwards to the corresponding lid, where the fibres which proceed from the tendon lie somewhat more superficially than the others.

In regard to their insertion, some fibres which lie near the free edge of the lid pass between the Meibomian glands and the bulbs of the hairs, and terminate on the edges of the lid without reaching the external canthus.

The rest of the fibres reach the outer angle, and meet at an acute angle for a short distance, and then decussate, attaching themselves by means of firm connective tissue to the middle of the internal surface of the external border of the orbit.

It is, I think, unnecessary that I should describe the orbital portion of the orbicularis. The fibres are redder than those of the palpebral portion; they cover the upper, outer, and lower borders of the orbit, and the outermost fibres blend with those of adjoining muscles.

There are, however, certain fasciculi of the palpebral portion, known as the muscle of Riolanus and Horner's muscle, which are deserving of special description.

The Muscle of Riolanus arises from the anterior surface and from the upper and lower borders of the internal palpebral ligament in its outer fourth, and, as they run outwards, cross the vertical part of the canaliculi.

According to Gerlach, the collecting-tube is not in relation with muscular tissue; but Robin and Cadiat consider that both the canaliculi and the collecting-tube formed by their junction are in relation, throughout their whole length and around their whole circumference, with muscular fasciculi, though they admit that a little connective tissue and adipose tissue intervene between the common tube and the muscular fasciculi.

It is certain that the horizontal and vertical portions of the canaliculi are in relation with muscular fibres, and the drawings of Gerlach show the relations very distinctly. He made a series of horizontal sections of about 1 mm. in thickness. The first show that the fibres of Riolan's muscle, lying close to the margin of the lid, run entirely in front of the vertical portion of the canaliculus, whilst the ducts of the Meibomian follicles have fibres of the muscle both in front of and behind them. Muscular fasciculi were first seen at the fifth section, situated between the conjunctiva and the duct. Vertical sections give the same results, and show that the subconjunctival muscular tissue first becomes apparent at a distance of 0.5 mm. from the punctum, whilst

(a) Op. omnia, 1610; Paris, Fol. Anatomie, page 87.

(b) Reichert and Du Bois Reymond's *Archiv*, 1868, page 265.



fibres passing in front of the canaliculus are found nearly as far as the punctum. In all horizontal sections in which fibres of muscle are found in front of and behind the canaliculus, fibres are found connecting the two, so that the canaliculus is virtually surrounded by a sphincter, though there are no true circular fibres. The musculature of the horizontal segment of the canaliculus is quite different in its behaviour: part is Horner's muscle, part arises from the internal palpebral ligament.

The Muscle of Horner has a somewhat curious history, well given by Lesshaft, from whom I borrow the following particulars. The term scarcely appears to be appropriate, for it was discovered and described three-quarters of a century before Horner by Guischard Jos. Duverney,(c) who gave an account of it in 1749, and again in 1761, when he spoke of it in these terms: "The orbicular muscle being reflected, a small muscle is brought into view, which arises from the anterior part of the os planum of the ethmoid, and is inserted into the inner part of the internal tendon, opposite to the insertion of the orbicularis"(d) And in his "Œuvres Anatomiques" (1760), tome i., p. 130, he adds, "It is a small muscle that I have long recognised." J. Rosenmüller again described it in 1816,(e) and named it the musculus sacci lacrimalis in these words: "But behind the lacrimal sac there is the muscle of the lacrimal sac, a small muscle which arises from the posterior margin of the lacrimal fossa, and is attached to the posterior surface of the tarsus." Trasmonti described it in 1823.(f) It may be said, then, to have been fairly known before the time of Horner, whose paper appeared in the *Philadelphia Journal* for 1824. P. Dubois described it independently in 1824; and, lastly, Bourjot St. Hilaire in 1835 named it the "dilataleur du sac." This little muscle has hence been discovered no less than six times — by Duverney in 1749, Rosenmüller 1816, Horner 1823, Trasmonti 1823, P. Dubois 1824, and Bourjot St. Hilaire in 1835. Lesshaft, with Krause and Arnold, regards it as being undoubtedly an independent muscle, and names it the *musculus lacrimalis*. Its fibres are somewhat paler than those of the orbicularis. It arises from the middle of the orbital surface of the lacrimal bone. The posterior border of this attachment is arcuate, with the convexity directed backwards; the vertical height of the origin is from 5 to 7 mm., and the extent from before backwards is about 3 mm. Krehbiel makes the muscle arise by two origins, which decussate; and this, according to Gerlach, is probably true so far as the middle fibres of the muscle are concerned, but not of those near the upper or lower borders. The fibres decussate at their origin, run outwards and somewhat forwards, forming a square belly, the upper and lower borders of which are scalloped at a distance of about 8 mm. from the origin. The muscle divides into an upper and a lower fasciculus, which accompany the corresponding canaliculi. Even before the division of the muscle, some fibres are inserted into the lacrimal sac, and into the posterior wall of the common duct. After division, each portion of the muscle covers the posterior wall and the convex border of the corresponding canal, and the fasciculi consequently become thinner as they approximate the puncta, because they in part terminate at the borders of the canals along their whole length. The fibres are on the whole about 12.5 to 15 mm. in length, and the belly has a thickness of 1 to 1.5 mm. The muscle is covered both in front and behind by fibrous membrane, as has been well demonstrated by Tillaux. The posterior investment is derived from the septum orbitale; the anterior is Cruveilhier's and Sappey's "tendon réfléchi du muscle orbitaire," and is described by Henle as the posterior layer of the internal palpebral ligament. This layer, springing from the posterior crest of the lacrimal groove, passes as a sheet of membrane outwards and forwards, and, becoming thinner, blends with the anterior layer (which arises from the frontal process of the superior maxillary bone) about two millimetres before its junction with the tarsal cartilage. The posterior layer of the internal palpebral ligament forms, therefore, a complete septum between the lacrimal sac and the musculus lacrimalis, and it is so closely adherent to the fibrous wall of the former that they cannot be distinguished even in microscopical sections. The lacrimal sac lies therefore in a triangle formed by the bone and the anterior

and posterior layers of the internal palpebral ligament, to all of which it is closely adherent. The outer surface of the sac where the tube common to the two canaliculi enters is alone free. This tube runs between, but is not fused with, the two layers of the internal palpebral ligament, and it gains this position by the two canaliculi separately perforating the posterior layer of the internal palpebral ligament, and immediately uniting, after having passed through it, to form the duct. The fasciculi of the musculus lacrimalis accompany the canaliculi.

(To be continued.)

#### A NEW SERIES OF

### CASES OF FILARIA SANGUINIS PARASITISM OBSERVED IN EGYPT;

WITH THE RESULTS OF EXPERIMENTS ON FILARIATED  
SUCTORIAL INSECTS.(a)

By PROSPERO SONSINO, M.D. (Pisa).

(Concluded from page 339.)

#### PART II.

##### Result of Experiments on Filariated Suctorial Insects.—

The result of my experiments on gnats, of which I gave an account in my previous communication(b) to the Epidemiological Society of London, while corroborating the passage of the human-blood embryo filaria into this variety of suctorial insects, differed so much from Dr. Manson's as to lead me to think that gnats play (as an intermediary host) with filariae a part simply similar to that performed by some birds with vegetable seeds, viz., that of transporting the embryos from one to another medium. But I concluded that this subject was one to be studied again. Indeed, referring to the result of my experiments, I perceived that they were too few in number, and that some peculiar circumstances may perhaps have interfered to explain the differences between my results and Dr. Manson's. Thus I found it advisable to perform other experiments, and to modify my processes.

The gnats on which I repeated the experiments were of the same kind as those examined before, as they are those of the common species found here in every house. Some of their characteristics were given in my previous paper, from which it may be argued they belong to the genus *Culex*. But, as I wished to be certain what species I was dealing with, I sent a certain number of them to Professor Adolfo Targioni Tozzetti, of the Museum of Florence, who had the kindness to examine them for me. He informed me that there were evidently among the specimens a certain number of the common species, *Culex pipiens*, which has a very large geographical distribution in the world; but that others were a little darker, and offered some slight differences which left him in doubt as to whether they must be classified as a species very akin to *Culex pipiens*, or only as a variety of it. I can therefore say that my experiments were made on *Culex pipiens*, or on a *culex* very nearly akin to it. A smaller species is really found here, one which it is generally thought flies about and stings the human skin without making any noise; but this species seems less common, and I have not as yet been able to procure any individual which had ingested filariated human blood.

To fix the species of the gnats experimented with was a matter of importance, since Dr. Myers' experiments in South Formosa have left doubt whether all the species of mosquitoes can act as intermediary host to the parasite.(c)

The conditions of my subsequent experiments were also improved by putting the captured gnats in a bottle only covered with muslin, and not corked, in order not to hinder the exchange of air, and by putting some water in the bottle, just as I learnt afterwards had been done by Dr. Lewis. But I wished, moreover, to carry out each series of my experiments with the temperature observed during

(a) Communicated to the Epidemiological Society.

(b) "On Filaria Sanguinis Hominis, Lymphocœle, Lymphuria, and other Associated Morbid Disorders, etc." Published in the *Medical Times and Gazette*, May, 1882; abstract in the *Transactions of the Epidemiological Society*, new series, vol. i.

(c) "Observations on Filaria Sanguinis Hominis in South Formosa." By W. W. Myers, M.B., in the *Transactions of the Epidemiological Society of London*, new series, vol. i.

(c) Though this is unknown even to French authors. See Duval, page 25.

(d) "L'Art de Disséquer," 1749, c. vi., page 37.

(e) "Comp. Anat.," 1816, page 241.

(f) "Intorno la Scop. di due Nervi dell'Occhio umano."



Synopsis of the Result of Examinations of Filariated Culex.

Date of experiment.	Temperature* (Centigrade).		Number of culex examined.	Duration of captivity.	Result.
	Min.	Max.			
1882.					
Jan. 12 to Feb. 2 ...	3·0°	19·0°	9	From a few hours to three days	Embryo filariæ both in the stomachal cavity and among the tissues, exactly like those directly extracted from the man, or but very little different.
Feb. 12-18 ... ..	2·50	20·0	12	From a few hours to five days	
May 17-19 ... ..	12·70	35·25	3	Fifty-eight hours	Embryo filariæ unmodified, but dead; but the gnats too were found dead when taken for examination.
May 20-21 ... ..	17·80	39·0	1	Twenty-four hours	Embryo filariæ living, but still unmodified.
June 3-5 ... ..	16·70	34·0	4	Four hours to more than fifty hours	In one gnat, examined the same day, embryo filariæ unmodified; in those examined after more than twenty-four hours, I found filariæ shorter and thicker in the tissues.
June 10-11 ... ..	15·80	38·50	3	More than twenty-four hours	In one, filariæ in the stomach not transformed; others in the tissues sausage-form; in another, none in the stomach—some transformed, and some not, in the tissues.
1883.					
Jan. 23-24 ... ..	7·0	19·0	1	More than twenty-four hours... ..	} No transformations.
Jan. 26-28 ... ..	5·0	18·0	1	Two days ... ..	
March 5-7 ... ..	7·0	23·0	2	Two days ... ..	No transformations. In the stomach, some living, and some dead and in process of disintegration.
March 5-8 ... ..	7·0	31·0	1	Three days ... ..	One embryo filaria in full activity appears a little shorter and thicker than those taken directly from man.
March 10-14 ... ..	9·0	33·0	1	Four days ... ..	} Transformations—sausage-form.
March 10-15 ... ..	8·0	33·0	1	Five days ... ..	
March 10-16 ... ..	6·0	33·0	1	Six days ... ..	
May 4 ... ..	13·0	20·50	1	A few hours ... ..	} No transformations.
May 6 ... ..	21·0	40·0	1	A few hours ... ..	
May 6-7 ... ..	12·5	40·0	1	More than twenty-four hours	Large quantity of the embryos into the stomach without modifications, and not moving; some in process of disintegration; three living, in the tissue of the thorax.
May 6-12... ..	11·0	40·0	2	Six days ... ..	Transformations more advanced; in some the intestinal tract distinguishable.

\* These minima and maxima of temperatures were obtained from the observations made at the Laboratoire-Kbédivial of this town, and published monthly by its Director, Mr. Ismahin. They give then the temperature observed at the Observatory, and not that particularly of the room where the gnats were under experiment.

the time of each series, noting especially the minimum and maximum, as it occurred to me that the temperature might have a strong influence in modifying the result of the rearing of the embryo filaria in the insect's body, remembering that my first set of observations had been done in a rather exceptionally cold January.

I tabulate above the results of my experiments made in different months comprised in the first half of the years 1882 and 1883, upon forty-five gnats, in which were found embryo filariæ, or what were believed to be their transformations. I missed the opportunity of experimenting in the second half of last year. The synopsis also gives the minimum and maximum temperatures corresponding to each series of experiments. It appears from it that both in January and February of this and of last year, with a maximum temperature of, 24° C., I never found filaria transformations; but that these appeared in some of the examinations made in March, May, and June, with a maximum temperature of between 33° and 40° C. Thus it seems to me to be evident that the transformations of filariæ take place in Egypt only with a certain degree of temperature which does not generally occur before the month of March.

The metamorphosed forms I have observed are like those verified by Manson and Lewis. I cannot give better drawings than those of the latter observer.(d) I often saw transformations like those given by Lewis's Figs. 6 and 7, but more frequently Figs. 9 and 10, and these latter always in the tissues of the stomachal cavity, and after a certain time of captivity, not less than twenty-four hours. The more developed forms of transformations I saw in the last set of experiments after six days of captivity, in which forms I could distinguish the intestinal tract well formed, the point of junction of the œsophagus with it, and the beginning of a buccal apparatus. The specimens in which I could distinguish these particulars did not exceed the dimensions of those given by Lewis in his Fig. 10, and hitherto I have not succeeded in detecting forms of transformations so large as those of Lewis's Figs. 11, 12, and 13.

That the observed transformations belong really to the human filaria there is every reason to believe, as I never found any in a great number of gnats taken at random from other sources, nor did I find them in the tissues of gnats examined soon after they were brought to me from filarious individuals.

If my inference, that it is necessary to have a certain degree of temperature to render gnats capable of affording

a suitable soil for the development of embryo filariæ, so as to perform the part of intermediary host of the parasite, should be confirmed by more numerous experiments performed in other countries, we shall have, perhaps, the key to the reason why the geographical distribution of filariæ is not precisely the same as that of the mosquitoes and gnats in general. To establish the influence of temperature on the transformations of embryo filariæ in the body of gnats is a matter of great practical importance. To simplify this question, let us speak only of *Culex pipiens*. This species exists in many countries of Europe where filarial infection has not yet been observed. If in these countries it is due to the absence of a certain high temperature that *Culex pipiens* is not capable of being the intermediary host to filaria, then there is no fear of seeing the filarial infection spread in those countries, unless that temperature be reached. But if neither that influence of temperature nor other external influence exist, then we may expect that, with the ever-increasing intercourse of the inhabitants of Egypt and Europe, *Culex pipiens* will spread the filarial infection in those countries.

It is possible, however, that the conditions of the rearing of the filaria in the intermediary host are more complicated, and that they are in relation not only with the temperature, but also with the hygrometric state of the air, of which I have not up to this date any confirmation.

We may therefore conclude that a problem of great practical importance remains to be solved, and that is: Is there any external influence that hinders *Culex pipiens* and like insects from playing in certain countries the part of intermediary host of filaria, different to what happens in other countries, like Egypt?

There is no doubt that another element of the diffusion, or of the infection, may be searched for too in the different habits in respect to drinking-water, but this will never act as an absolute obstacle to the spread of the infection, because it must happen from time to time to some one of the inhabitants, even of more civilised countries, to use foul water, just as the people do generally in this country.

We must not forget, moreover, that in the vital cycle of filaria there seems to be a stage of free life in the water; and, as a point of new research, I may suggest that it is possible too that the influence of a certain high temperature may be necessary not only to determine the transformations of the filaria in the insect body, but also to maintain in favourable conditions the life of the parasite when it leaves the insect's body to pass, as we think, into water, before being reintroduced into the human body.

Thus I think I have briefly pointed out the elements of

(d) "The Nematoid Hæmatozoa of Man." By T. R. Lewis. Reprinted from the *Quarterly Journal of Microscopical Science*, 1878. See plate xii.



inquiry that must be in the mind of the investigator who institutes new researches with the view of solving the question: What are the conditions that determine and favour the spreading of the filarial infection, and in what manner may this spreading be interfered with in other countries, as those of Europe?

*Result of the Examination of other Suctorial Insects.*—I think that the result of the examination made on two other suctorial insects, though it does not afford data of great importance, should be given to complete what is known concerning the different manners of the exit of the embryo filariae from the human body. Of one, *Pulex irritans* (the common flea), I have little to say, as I succeeded only once in catching a single individual upon a man who was infected with filaria, and on the examination of its stomachal contents I detected a few embryo filariae, which, however, were dead, and presented an unmodified form, although I examined the insect after a day's captivity. I had naturally more facility in procuring the *nocturnum fatidum animal* zoologically known under the name of *Cimex* or *Acanthia lectularia*. However disgusting it may be to have to deal with it, I could not desist from such examination, being inquisitive as to its conduct as regards the human embryo filaria.

I examined from January last to a quite recent date twenty-six bugs taken from the beds of filariated persons, and in many of them I found embryo filariae in large number. Once, in a big specimen which measured more than six millimetres in length, and from which a large and fresh drop of blood was obtained, I found such a large number of embryo filariae that I calculated that in the whole drop there must have been several hundreds of them. I had never so many human embryo filariae under the field of the microscope, and their abundance was only to be compared to what I could often see in the filariated blood of the crow (*Corvus corax*). But, to abridge the result of my examination on filariated cimex, I may say that I found that this insect is infected with embryo filariae from man just as easily as culex; that, on examining the cimex when full of recently drawn blood, the filariae were found living; but that after twenty-four hours of captivity all the embryo filariae were not living, and that after more than twenty-four hours generally the filariae were dead, and some of them were found in process of disintegration; that I have found filariae, though in small number, even five days after the captivity of the insect, but not on examination performed after seven days of captivity; that I never found filariae modified so as to lead me to believe that such transformations occurred in the body of cimex as those in the body of the culex; that I could not say I had found embryo filariae in the tissues out of the stomachal cavity, through difficulties in dissecting—it is probable that the few specimens of filariae found out of the stomach may have been derived from its contents.

For all that I am inclined to conclude that filariae may live some time in the stomach of cimex simply because of the generally slow process of digestion of this insect, but that with time they are digested, or else are expelled with the excrement. In this manner the embryo filariae that are caught by cimex are drawn off from the cycle of development of the parasite, and cease to aid in the maintenance of the species. Thus, as far as concerns filaria infection, *Cimex* is not so dreadful a foe to man as its rival *Culex*.

#### A CASE OF

### CARCINOMA OF THE PROSTATE GLAND, PROBABLY SCIRRHOUS, OCCURRING AT AN EARLY AGE.

By R. J. W. OSWALD, L.R.C.P. & S. Ed., M.R.C.S. Eng.

W. H. R., aged twenty-three years, married, a farrier by trade, first came under my notice about the end of September, 1882. The family history has been good. His father died from chronic bronchitis; his mother in childbirth; his brothers and sisters have always enjoyed good health. There was no history of cancer on either the father's or the mother's side. His own history, up to the time he first noticed anything unusual, was good; he was a strong, robust man, and able to work at his trade without fatigue. About four years ago he had a severe kick from a horse in the abdomen,

which incapacitated him for a time from his work; and afterwards several kicks in the perineum, and one severe blow from a shovel. About three years ago he was attacked by the following symptoms:—Slight difficulty in defæcation and micturition, accompanied by tenesmus. He took no notice of them, but they gradually increased, until in June, 1882, he was suddenly seized with diarrhoea, and lost a large quantity of blood. He was prescribed for, and the attack abated. No local examination was made. The weakness continued to increase, and he was compelled to give up his work. He suffered very great pain in the epigastric and perineal regions, especially when the bowels were relieved—so much so that he dreaded that event. Emaciation was marked. He then went to St. Thomas's Hospital, where he was examined, and told that he had cancer, but that nothing could be done for him. It was immediately after this that I first saw him.

His condition then was one of emaciation, and he had well-marked cachexia; he was scarcely ever free from pain. Micturition was still difficult, and defæcation almost impossible. On examination of the rectum, a large, nodulated non-elastic tumour, very painful to the touch, was detected in the situation of the prostate gland, passing backwards, nearly to the sacrum. There was no annular constriction of the rectum, and a narrow passage was felt between the tumour and the posterior wall of the bowel. I advised him to go to Charing-cross Hospital, where he was admitted on October 4, under the care of Mr. Barwell, and where I saw him constantly. Mr. Barwell considered it advisable for him to rest in bed for a few days. He was placed on fluid nourishment, and, to relieve the extreme pain, was ordered morphia suppositories every four hours. After an examination, Mr. Barwell came to the conclusion that the growth was of a cancerous nature, and thought that the only justifiable measure would be to perform "colotomy," with the object of relieving the tumour from the constant irritation of faeces and of mitigating pain, and with the hope of prolonging life. Accordingly, twelve days after admission, Amussat's operation was performed. The only noteworthy feature was that the kidney was unusually low, and came in the line of operation. On passing the finger down the lower segment of the bowel, a hard, nodular, irregular mass was felt, about two inches from the orifice. The patient rallied well from the operation. The wound, on removing the dressings, looked healthy; the bowel acted well; and the pain was not so severe. At his own request, a fortnight after, the man was removed to his home, where he was under my care until his death, on January 17, 1883.

His condition, from the time of his discharge from hospital until his death, was one of almost uninterrupted progressive prostration and emaciation. Cachexia became much more marked, and the pain again returned in a severe form, although he was almost always under the influence of morphia. Other symptoms gradually developed. Œdema of the scrotum and lower extremities set in, and micturition became frequent and painful, and only possible in the prone position. For thirty-six hours before death no urine was passed. The pulse was small, quick, and the tongue furred; and he suffered a great deal from flatulence.

*Secondary growths* three in number. One over the seventh rib (left side) was non-adherent to the bone, but firmly attached to the skin; very hard and nodulated, but rapidly growing, and becoming very red a few days before death. Another, at the back of the neck, was about the size of a cherry, and also of rapid growth. The third was over the left buttock, where there was a considerable swelling of a doughy consistency, and non-inflammatory. A discharge "per anum," which began shortly after the operation, increased in quantity, small portions of *débris* being ejected; the whole of an extremely offensive character.

The treatment adopted was of a palliative and stimulant character. Suppositories containing half a grain of morphia were given every four or six hours, as well as a pill containing one grain of opium night and morning. Later on this quantity had to be increased, as no effect was appreciable. Soda-water, milk, etc., were taken in large quantities. To act as a gentle aperient, "Hunyadi János" was given with advantage. The diet was of a plain, nutritive character—beef-juce, beef-tea, etc., with a regulated amount of stimulants. No vomiting occurred until nearly the close of the illness.



*Pathology, principally Histological.*—No post-mortem examination being allowed, the portions I obtained for investigation were from the discharge, and a small portion of the tumour after death. The cells, under a power of 400 diameters, presented a great diversity of form—spindle, caudate, unipolar, large round cells containing many nuclei and granular contents, pear-shaped, and innumerable small cells filled with granular matter. With transmitted light the cells presented a beautiful appearance; the cell-wall was clearly defined, the nuclei and nucleoli standing out distinctly, and strongly refracting the light. There was no appearance of pigment in any of the cells, but some seemed to have undergone fatty degeneration. The large round cells were present in considerable numbers, but they did not exhibit either the form or size of the multipolar or "giant cells" met with in sarcoma. The cells were packed in alveoli of moderate size, pressure, no doubt, causing many of the above-mentioned forms. Pervading all parts of the field of vision were the small cells. The stroma consisted of fibrous tissue, containing connective-tissue corpuscles. This tissue was present in large quantities; in some parts it appeared in a wavy arrangement, enclosing at intervals groups of cells. At one or two places were dense portions of fibrous tissue with no cells whatever. This was probably part of the tumour that had undergone fibroid induration. The portions of the tumour that came away exuded on pressure a whitish fluid rich in cells. The colour of the pieces was a dull white.

*Remarks.*—With the limited family history at command, presenting no trace of cancer or any form of tumour whatever, the origin of the disease was plainly "traumatic." The several severe blows in the abdomen and perineum, by keeping up irritation, no doubt, first started the mischief. The majority of modern pathologists hold that, in cancer, constitutional predisposition is the prime factor; but of late the opinion is gaining ground, and with reason, that the reverse holds good. Mr. Barwell was quite of opinion that the case was one of "traumatic malignancy." Cancer of the prostate is rare. Some authorities mention having seen several cases. Billroth considers that it is the encephaloid variety that always occurs, and doubts the existence of scirrhus. Professor Erichsen mentions three cases of encephaloid in patients over seventy years of age, and one of scirrhus. This particular case, I venture to think, is of the scirrhus variety, and for the following considerations:—The length of time since the commencement of the symptoms—more than three years; the extreme hardness of the tumour; its irregular outline, and the facts that there was no sense of fluctuation, and no loss of blood since the commencement of serious symptoms (about a year ago), although ulceration had been going on for some time, as shown by the offensive discharge; and, lastly, the microscopical evidence. As regards operative measures, even had the growth been detected at any early date, no treatment, either locally or constitutional, would have been of any avail. By "colotomy," as advised by Mr. Barwell, the patient's life was no doubt prolonged (he lived just three months after the operation); he suffered less pain for some time, and appeared to gain strength in proportion. At the early stage of the disease the growth must have been very slow, as shown by the symptoms. Cancer occurring in the prostate at such an early age (commencing, probably, at nineteen years) is extremely rare, more especially of the scirrhus variety.

**LOCOMOTOR ATAXY AND SYPHILIS.**—At the meeting of the American Neurological Association, Dr. Birdsall, of New York, read a paper in which he presented statistics with regard to the relation between syphilis and locomotor ataxy. He had collected 525 cases of locomotor ataxy, of which 225 (43 per cent.) had syphilis. The cases were from Rosenthal, Bernhardt, Remak, Westphal, Pusinelli, Gowers, Fournier, and Erb, together with 42 which had come under his own observation. There was a marked difference in the percentages of syphilis in the cases reported by different observers. For instance, Prof. Erb in 100 cases reports syphilis as present in 88 per cent., while in Dr. Birdsall's own cases (42) only 4 per cent. of the patients had syphilis. Probably the differences were due to accidental relations.—*Phil. Med. Times*, July 14.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### UNIVERSITY COLLEGE HOSPITAL.

#### STRANGULATED UNDESCENDED TESTIS—OPERATION—RELIEF—SUBSEQUENTLY CASTRATION—ERYSIPELAS—SEPTIC PERITONITIS—DEATH—AUTOPSY—REMARKS.

(Under the care of Mr. RICKMAN J. GODLEE.)

WALTER H., aged four months, was admitted into University College Hospital on March 3, 1882.

*Past History.*—The child was very restless last night, and screamed out frequently as if in pain, but nothing was noticed to account for it. At 10 a.m. this morning (day of admission) the mother noticed that there was a hard swelling over the left external abdominal ring, which was tender, while the rest of the abdomen was neither tender nor swollen. The child has slept a good deal during this morning, but has again been fretful this afternoon. The thigh is kept flexed on the abdomen; swelling about the same. The child is usually constipated, the bowels not acting for two or three days sometimes; they were moved last evening. Is brought up at the breast, but vomits frequently, and has vomited to-day even more frequently than usual. When admitted, an anæsthetic was administered, and an attempt to reduce the swelling into the abdomen was made. Proving unsuccessful, Mr. Godlee was sent for.

The *Present Condition* was then, briefly, as follows:—A tense, firm, irreducible swelling, tender when handled, situated just outside the external abdominal ring on the left side. The scrotum was equally and well developed on the two sides.

*Treatment.*—The child being chloroformed, Mr. Godlee, under the spray, cut down on the swelling, as in the operation for hernia. After division of the skin and subcutaneous tissues, the sac was opened, and the contents were fully exposed. They consisted of a globular, hard mass, occupying apparently the external ring, on pulling down which as far as possible, a smaller lump of similar shape and colour came in sight; this was at first mistaken for a piece of half-strangulated gut, but its hardness negated this idea. The mass could neither be pulled down nor forced up; a broad director was therefore passed through the ring in front of the mass, and a constricting band was divided with a blunt-pointed bistoury, the incision being made upwards. The tumour at once became released, and could be drawn down into the wound. It then became clear that it was the testis, the body of which was grey, while the smaller part, the epididymis, was much darker in colour. Both had evidently been tightly constricted, and were indeed on the point of sloughing. The lower part of the vas deferens had also suffered constriction. No gut was contained in the sac, and, as the parts were so small, no attempt was made to close the canal. An attempt to get the testicle into the scrotum failed, on account of the shortness of the vessels, not from any deficiency in the length of the vas deferens. The edges of the wound were drawn together, and a drainage-tube was put in; the wound was then covered with iodoform wool, and a soft bandage applied.

March 4.—The patient has passed a very restless night. The wound was re-dressed under the spray; there was considerable swelling over the external ring; edges of the wound were well together; no redness, no bagging. Temperature 101.6° Fahr.

6th.—Passed a quieter night. Temperature this morning has fallen to 99.8° Fahr. The wound is looking better; less redness, less swelling. Iodoform dressing is continued.

7th.—Good night on the whole; a little restless in the early morning. Temperature 99.6° Fahr. The wound was re-dressed. Some of the sutures have cut through; the wound is gaping, and the testicle is exposed; it looks rather inclined to slough.

8th.—It was decided this morning to remove the testis, its condition being less satisfactory even than yesterday. Mr. Godlee passed a double ligature through the cord, tying one around the vas deferens, and the other around the vessels; the cord was then cut through, and the testicle







glow of emotion and of warm human sympathy, that it will be from now that we shall date its inception. For while human thought is ever advancing with the steady whirr and tick of clockwork, its movement is often scarce noticed until emotion strikes the hour. Dr. Allbutt's style may, here and there, show a lack of that self-restraint which is seldom gained except by a life spent in literature, and which in the case of the present speech might possibly have been gained only at the cost of its wonderful freedom and *élan*. But in his thought there is no extravagance, or absence of restraint. It is equally far removed from Philistinism and priggishness, and deserves, if anything written in English ever did deserve it, the praise of Mr. Matthew Arnold for its "lucidity." Dr. Allbutt has stepped outside the walled circle of orthodoxy, without straying into the wilderness of paradox, which is the special temptation of original and imaginative minds. The middle path he has chosen is the safest, if it can only be found and followed. But, such is the pull of bias towards one side or the other, such the attraction or repulsion exercised by the mass of current thought, that to find the path is only given to very few, and to fewer still to keep it. The truth of one generation is the paradox of another; and what is decried as heretical to-day, shall, with "as wide a throat," be proclaimed orthodox to-morrow. It is the sign of a lucid and courageous mind to be able to perceive and steer along the straight and unbroken line of truth, uninfluenced by the huge bulk of opinion ever drunkenly floundering on this side or on that. And yet, after all, it is not so much for its thought that Dr. Allbutt's address will be remembered, as for that emotional, sympathetic undertone which will make it vibrate in every heart. Only wide human sympathies under the guidance of a powerful imaginative insight can make the man who walks in the pure air of science, upon the hill-tops of success, feel with the hearts that labour amidst the sordid pettiness of lower and darker levels. Such gifts and such a use of them are rare and precious. They earn a love which is better than reverence or wonder. Men may still laud and chucklingly admire the gloomy and unhuman sage who told them they were mostly fools, but it is for the simple and large-souled George Eliot, with her interest in common lives and her sympathy for lowly hearts, that they cherish the tenderest memories.

If there is one part of Dr. Allbutt's address which more than another is worth thinking over by medical men, and likely to make an impress upon medical thought, it is that in which he defines the claims of the profession to public regard and to political authority. If he succeeds as well in clearing his readers' minds of cant on this point, as he has cleared his own, he will have worked a success which even in these days might be considered as partaking of the miraculous. But, in spite of all Dr. Allbutt's eloquence, there will remain many minds who will still be chiefly drawn to the old ideal which has been preached to us for so many years from so many rostra, and which, like all beliefs that have a large following, must be admitted to possess some element of reasonableness and vitality. Which standard will the profession enrol itself under? which light and which leading will it follow? That of Mr. Bennett, who, in proclaiming last week the time-worn truth that ours is a noble profession, demands as its logical corollary that we should receive due patents of nobility? or that of Dr. Allbutt, who, following the Poet Laureate, finds the true patent of nobility in humble unselfishness, unconscious of heroism, and who of course cannot demand any recognition for it because to throw upon it the glare of publicity would be infallibly to destroy it? For ourselves, we cannot help thinking that Mr. Bennett's demand for political power, not as an end, but as a means towards social

recognition, is of altogether too local and artificial a character to meet with any wide sympathy from the profession. The bulk of us must ever be drawn from the sons of the professional classes, who form the intellectual as well as the moral backbone of the country. It would weaken the profession, instead of strengthening it, to court an invasion from the younger offshoots of our "materialised aristocracy." They would only, even on Mr. Bennett's showing, be tempted to join us for the sake of the loaves and fishes, and they would come to us with an ideal of very different quality from that which now happily rules in our ranks. The movement, which in the last generation attracted to the College of Physicians men of a sturdier and bolder-minded stock than the old university graduates, though it undoubtedly tended to lower the social status of medicine, has added immensely to the height of its ideal and the fervour of its beliefs. The profession is now slowly recovering its due social standing, and is attracting more and more the very men we want—thoughtful men of breeding and culture. But to replenish our ranks from the class for whom good tone expresses the highest reach of excellence, and money and enjoyment the main ends of life, would be infallibly to lower the self-respect of the profession, whatever effect it might have in winning for it the respect of others.

If, then, we are to claim a share of political power with any prospect of success, or promise of benefit to ourselves, it must be with a very different aim in view from that which Mr. Bennett holds before us. That the State needs our advice, and would be the better for hearing it, might seem to most a sufficient justification of our claim to give it from the place where alone it can be given with authority. But Dr. Allbutt traverses this commonly accepted logic. Public medicine, he says, does not as yet deal with very large conceptions, nor with the higher aims of national life; and hence all cries for "doctors in the House of Lords," for "political power for the profession," appear to him to be based upon a false and undignified idea of the Republic of Science. By-and-by, he promises us in a sentence which seems to look forward to a socialistic millennium, Public Medicine will be able to claim a public voice, when it has successfully worked out "the conditions of those great social fusions which hereafter shall absorb individual wills into new wholes and reveal the future of mankind." How public medicine is working out those conditions Dr. Allbutt does not tell us, but if he really believes that it is at present engaged in laying the foundations of a future socialistic republic, he is perhaps wise in not forcing its representatives into a Parliament composed almost exclusively of adherents of the present order. Whether the conceptions with which Public Medicine deals are large enough or not to warrant its followers in demanding an official place in Parliament, or whether Medical Science will not make itself best felt and rouse least resistance by steady unofficial pressure, are questions that must be left for future treatment. These are, after all, minor matters. The real point which the profession has to decide is this—Will it, following Mr. Bennett's advice, strive for a higher place at the feast, for more honours from the Queen, and more frequent mention in the *Morning Post*? or will it continue to obey that larger and more lovely ideal which Dr. Allbutt describes, and seek its highest reward in the self-respect and satisfaction that comes of humble, self-forgetting labour? For ourselves, we know well which ideal most appeals to us, for now that the tendency of civilisation is towards the effacement of conventional distinctions of rank, no ideal which rests on a regard for those distinctions can ever possess any strong or enduring vitality. But the ideal which Dr. Allbutt recommends has had its charm for the best minds, apart from all distinctions of race or polity; it is the one to which the advance of modern thought



and the widening of human sympathies will ever give fresh increase of strength; and it is, we are sure, the one in which the medical profession will find its best light and leading.

### EDUCATIONAL OVER - PRESSURE.

THERE is evidently a good time in store for the spectacle-makers in this country, for we have firmly determined to follow the example of Germany, and introduce short-sightedness on a large scale amongst our children. We have decided in favour of mental muddle as against clear vision; and by means of excessive book-work in schools, and the severe strain on the muscles of accommodation and the increased tension of the eyeball thereby occasioned, we are already reaping a rich harvest of myopia. It is of course difficult for modern ophthalmic surgeons accurately to compare their results with those of their predecessors, who were unprovided with the delicate tests now in use for the detection of errors of sight; but the conclusions they have arrived at cannot, alas! be shaken by the supposition that they are merely bringing to light defects which formerly escaped detection. The present number of grave cases of failure of vision, such as must at any period have secured recognition, is vastly in excess of anything that we find recorded by the authorities of past times, while the multiplication of minor visual impairments is going on under the immediate observation of living authorities in a manner that admits of no dispute. All English ophthalmologists are agreed that myopia is becoming daily more frequent amongst us; and Mr. Bendelach Hewetson and Mr. Edgar Browne made it abundantly clear, at the meeting of the Social Science Association at Huddersfield on the 4th inst., that this increased prevalence of myopia is attributable to school-work and over-employment of the eyes on print and stitching by children and young persons. The strain of the eyes in reading and fine sewing, required of children now to bring them up to the standards which they have to pass, results in deformity of these organs, which is more especially apt to occur when there is an inherited tendency to it, where general bodily nutrition is defective or where the construction of the school furniture and distribution of the light are faulty.

Now, these facts as to the spread of short-sightedness amongst the young are alone sufficient to prove that educational over-pressure exists, and in view of them it is in vain for members and officials of School Boards, who seem all to assume a pedagogic infallibility of tone, to asseverate that the present system is doing no harm, and that the doctors are simply foolish alarmists because they suggest that it is. If education, as now conducted, is causing wholesale short-sightedness, it ought to be overhauled and amended without delay, for, in homely phrase, "the game is not worth the candle," and an elementary knowledge of reading, writing, and arithmetic is dearly purchased by the partial blocking up of one of the great gateways of knowledge, which ought to remain the principal inlet of edification and delight all through life.

But these defects of vision which have been alluded to do not exhaust the indictment against education in these days. Worse remains behind. The children whose eyes fail them, and who go on groping over their relentless task in dimness and confusion, complain of headaches, and hundreds of other children whose sight remains good also experience frequent pains in the forehead or vertex. In a certain proportion of these cases the headaches are relieved by the use of appropriate glasses, but in a large number they persist in spite of all ophthalmological efforts, and are shown to depend on a state of irritation of the brain. And it is scarcely to be wondered at that the brain should suffer from processes which leave

their pernicious impress on the eye. The eye is a delicate organ, but, compared with the brain, it is what a ship's cable is to a cobweb, and it is certain that any operations in which they are both equally engaged that are detrimental to the one will be tenfold more detrimental to the other. We really wish that our educationists, who habitually talk of the brain as if it were a hard and stony structure that will stand any amount of chiselling and polishing, could see a microscopic section of a shred of it. Looking at a group of its starry cells, with their innumerable branches lying in their neuroglia, "like a swarm of fire-flies tangled in a silver braid," tracing out its intricate conduits and interlacing strands, learning that this exquisite complexity of tissue when alive is of the consistence of red-currant jelly, and that the "living splendour" with which it is "burnished"—its functional activity—is something as impalpable as the bloom on a ripe plum, which can be brushed off with a touch, and can never be reproduced, they would be more chary thereafter in imposing burdens on it, and in wearing it out prematurely by vexing toil. They would realise that if educational over-pressure impairs the power of the eye and alters its shape, it is likely to induce still more serious consequences in that supreme centre of which the eye is but the minister. And the real truth would seem to be that excessive application to study in early years does set up a sort of intellectual short-sightedness, analogous to visual short-sightedness, but much more difficult to discover and measure. We know that, in extreme cases, hopeless imbecility has been induced by the ruthless brain-forcing of children; and we are entitled to infer that, in a much larger number of cases, artificial stupidity, or a blunting of the fine edge of talent, has followed it in those who have been schooled "not wisely, but too well." The zealous teacher, with an eye to payment by results, gets results where he should only aim at preliminaries, and finishes up at twelve the evolution of a mind that ought to have gone on till middle life. The school headaches which we have adverted to, and which are attracting anxious attention in Germany, are very significant of hidden mischief and of the risks we are running. Headaches used to be utterly unknown in children in this country, except as premonitory of acute hydrocephalus, or as symptomatic of organic disease of the brain; and now they are of the commonest occurrence amongst town children, many of whom bring them home with them from school every day, while others suffer from them now and again, or when the home-work has been exceptionally heavy. But these school headaches betoken an irritated condition of the cerebrum and its membranes, and that they do so is shown by the fact that they occasionally run on into tubercular meningitis. Even, however, when they do not overstep the boundary of common headache, they are full of danger, and well calculated to excite forebodings: for the young brain cannot be irritated with impunity, and the "headachy" child is only too likely to grow up into the dissolute or insane man or the hysterical woman. And not less significant than the school headaches of some children in these days are the school twitchings of others. Grimacings, startings, and choreic movements of one kind or another are prevalent amongst school children of the more affluent classes, and particularly amongst girls, to an extent that could not be surmised by those who had not made observations on the subject, and that is ominous of disaster.

Medical men are, and ever have been, the consistent advocates of education. None know so well as they the hygienic value of training, of knowledge, of intellectual resources, and self-control. But what they desire is education in its larger sense, and not mere schooling. Without under-estimating the utility of the schoolmaster, it



must be maintained that the least important part of education is that which is obtained under his auspices. He cultivates a corner of human life, and makes it yield useful produce; but its wide expanse teems with luxuriant and varied growth that he has never evoked, but that he may do much to blight and stunt. All nature—sky, earth, flood, field, and flower,—all the forces of the universe—the stars in their courses, the summer lightning; the winter's frost, the dancing atoms, the mysteries of hate and love,—are ceaselessly busy in teaching the child; and shall we allow a dull man with a ferule in his hand to take the credit of the result? If we do, and, accepting his exaggerated notions of his own mission, permit him to encroach too largely on the domain of the great primordial teachers, pinning infants to benches when they should be roaming free, stuffing them with grammar when they should be quaffing sunshine, we, or those who come after us, will bitterly repent it. We shall become an island full of round-backed, blear-eyed bookworms, poor of heart and small of soul, instead of a nation of men and women strong of limb, graceful in movement, nimble-handed, quick-sighted, clear-headed, tender, and true—a nation such as we should all wish the English to become.

The penalties of educational over-pressure of every kind fall much more heavily on the children in urban than in rural districts. Their nervous systems are more unstable to begin with, and they lack the benefit of those mighty correctives—fresh air, sunlight, and freedom—which country children enjoy. But on children of all classes the rage for precocity, which animates those who have the regulation of educational methods, is telling more or less. The screw is applied too severely, and it has been applied far too fast. It should have been remembered that the great mass of children gathered or driven into Board Schools have no inherited aptitude for learning, and can only crawl painfully along the path that better-born children tread lightly. If it takes three generations to make a gentleman, it takes at least half a dozen to make a scholar; and to force sickly and underfed children, handicapped by a load of inherited pathological tendencies, to keep pace with the strong, the well-nourished, the soundly constituted, is both cruel and wasteful. School Boards had better arouse themselves to a sense of the true situation at once; if they do not they will be awakened to it by the voice of the country in somewhat peremptory and ungracious tones before long.

#### STATE INTERVENTION IN MEDICAL AFFAIRS.

ON Tuesday evening last, at the London Hospital, Professor Huxley delivered the address which has been so greatly looked forward to. He chose a topic which nearly touches the interest of every medical practitioner and student, and he dealt with it in his usual broad and statesmanlike manner. But there will be many, in this division of the kingdom at least, who will rise from the perusal of his remarks with disappointment. Lately we have all had our minds exercised on the claim of Medicine to intervene in the affairs of State. Professor Huxley turns to us the obverse of the medal, and draws attention to the right of the State to intervene in the affairs of Medicine. No one, of course, would expect Mr. Huxley to sympathise with or to uphold the view held by some in our ranks—that the object of medical licences is to protect the licensees from unauthorised opposition. But when he affirms that in passing the various Medical Acts the State had no idea of protecting the public from incompetent advice, he certainly differs from the modern conception of the object of a registrable diploma. What did the State mean by passing the Dentists' Act, if it was not to give the public a means of determining between

competent and incompetent practitioners? Legislative interference with the dental profession could be justified on no single one of Professor Huxley's reasons; and it is an entirely gratuitous assumption to suppose that the State has less care for the lives of its subjects than for their teeth. Professor Huxley has made a slip there, at all events.

On the subject of future medical legislation, Professor Huxley again shows himself out of harmony with current medical opinion. He thinks that all the present evils would be mended if, first, no one were placed on the Register who could not prove a competent knowledge of medicine, surgery, and midwifery; and, secondly, if the Medical Council were given efficient control of the examinations. The Medical Council has certainly in times past had scant justice done it, but if there is one point on which the mind of the profession is made up, it is on the absolute necessity of instituting reforms in that body, and bringing it more into harmony with general medical opinion. The clause in the abortive Medical Bill which provided for this was the only one in which the profession took a deep interest, and it is to be regretted that on this point Professor Huxley sympathises so little with the body to which he still professes himself proud to belong. If the Medical Council is only the agent of the State, instituted for purely State convenience, and allowed to run counter, with impunity, to the feelings and opinions of the medical body, it is a scandalous and crying evil that every fresh practitioner should be heavily taxed to support it. That is an old argument, but it has never yet been met by the adherents of extreme views on the autocratic function of the State.

Professor Huxley's next point is one which touches vitally the interests of teachers under the present system. The proposal, which has nothing new about it, is that the fundamental and elementary parts of medical education—the parts included under the old name of the "Institutes of Medicine," together with the collateral sciences—should be taught at two or three large central schools, instead of at a number of small schools, as at present. To this he added the suggestion that some systematic provision should be made for the advancement of Medicine as a science. There is at present in London, he pointed out, scarcely any opening for a man who wishes to devote himself to original scientific research, without any view of entering the field of practice. There is much that is taking in the idea of two or three large central schools, where the students of different hospitals would mix more freely than at present, but it is too large a question to go into now. All that we can say here is, that it is strange that Dr. Huxley did not allude to what he must know perfectly well to be the real justification of the present system, viz., that, imperfect as it is, we have in it almost the only aid to research in Medicine that exists in London.

We have a number of small schools, each with several small lectureships, held for the most part by young physicians and surgeons attached to the corresponding hospitals, who are willing to take the lectureships for the sake of the fees attached to them, rather than because it is their intention to devote themselves to the subject on which they lecture. That may not be an ideal system, but at any rate the income so derived helps these men to live, and devote themselves to that scientific study of disease by which they hope eventually to rise to fame and fortune. But for the assistance given by such appointments, many an able man would have been compelled either to abandon the idea of consulting practice altogether, leaving his place to be filled by the next best man who was possessed of private means, or would have been tempted to devote himself to work which was more immediately remunerative—in either case to the detriment of science. Imperfect as the present system may be, judged



by the systems in vogue on the Continent, where the State subsidises as well as intervenes, it still remains almost the only, certainly the most important, organisation which we possess for assisting the study of medical science as distinguished from its application in practice; and our authorities must weigh the consequences very carefully before they give in to the temptations of this newest conjoint scheme.

### CHOREA AND RHEUMATISM.

THE relation between chorea and rheumatism, or the dependence of the former upon the latter, is a question which has been much debated of late years in our own country—more so, we fancy, than on the Continent; and the fact that it forms a part of one of the subjects selected by the Collective Investigation Committee, shows that the problem has not yet received a satisfactory solution. It is not, perhaps, one of the questions best adapted for collective investigation, for the simple reason that so much depends upon the interpretation which the observer puts upon the history given him by the patient or his friend: what one man would record as “some history of vague pains,” another would call “subacute rheumatism.” But this objection, of course, would apply to all collective investigation. From the accumulation of a large number of statistics, we may certainly hope for some decided results. In his introductory remarks on rheumatism and its allies, at the last meeting of the British Medical Association, Dr. Barlow has given a succinct and impartial statement of what may be taken to be the views that are most in favour at the present time. The embolic theory, very seductive at the first glance, has failed to fulfil the expectations that were formed of it. Were it the universal cause, we should expect that heart-disease would always precede chorea, and that not infrequently some of the larger vessels would become blocked, and permanent damage result; neither of which conditions is met with.

In many cases no history of rheumatic attack can be obtained, but we are not justified in assuming that rheumatism is thereby excluded. We must wait for events. This was well exemplified in a case that recently came under our observation. A little girl who had twice had chorea, and each time without any (other) rheumatic manifestation, came again in a third attack, and still presented no proof of rheumatism, but she brought with her a younger sister, also suffering from chorea, with decided evidence of mitral disease, and a clear history of an attack of subacute rheumatism shortly before the onset of the chorea. If the patient has signs of heart-disease, it is almost needless to search further for evidence of rheumatism. Those who have had much experience of children are aware that endocarditis may, and often does, commence when the joint affection is so slight as to be hardly worth taking any notice of. The subcutaneous nodules that Drs. Barlow and Warner described in the “Transactions of the International Medical Congress,” are now generally admitted to be of rheumatic origin, but, as they are rarely present without organic disease of the heart, they cannot often have much diagnostic value. The erythema marginatum which is sometimes present might be accepted as evidence of rheumatism, but it is often transitory, and probably frequently escapes the notice of the patient or his friends. Some few years since, Dr. Dickinson discussed at some length the rheumatic origin of chorea, and its dependence or not upon endocarditis, and he arrived at the conclusion that chorea of rheumatic origin was quite independent of endocarditis, and was due to rheumatism of the nervous centres; indeed, he went further than this, for he maintained that the chorea caused the endocarditis, relying partly on the

absence of rheumatic antecedents, and partly on the fact that endocarditis often succeeds chorea. These are not very powerful arguments when the latent character of rheumatism, to which allusion has been made, is taken into consideration. On the whole, Dr. Barlow's conclusion, that “chorea occurs so frequently in connexion with rheumatic symptoms, both in combination and alternation, that we are justified in provisionally regarding it as itself often a rheumatic symptom,” is warranted by the evidence he brings forward; but, granting that it be entirely proved, the whole problem of chorea is by no means yet solved.

### CHRONICLE OF THE WEEK.

It is one of the greatest pleasures of lesser minds, conscious of their own place and proportions, to watch a larger mind dealing with a hackneyed subject. On Monday last, Sir James Paget talked to the working-men, at their College in Great Ormond-street, on “Recreation,” and managed to strike out some sparks from even such a worn-out tinder-box as that. Here is one of his generalisations: “Three things seem to lie at the basis of healthy recreation—first, uncertainty; second, wonder; and, third, the exercise of skill, whether mental or bodily, in something unlike the ordinary day's work.” If Sir James Paget means that every form of recreation includes these three elements, the generalisation is somewhat too narrow. The only recreation that many of us obtain in the midst or at the end of our day's work—viz., a walk along tiresomely familiar streets—satisfies none of his conditions, unless reckless driving, hideous fashions, and the display of skill necessary to avoid both, be considered sufficient to bring it under the general rule. Reading, again, the recreation of the best minds, does not depend for its pleasureableness on the exercise of skill; nor violin-playing on the element of uncertainty—in the hands, at least, of some amateurs, it is to be hoped. Still, of most recognised recreations Sir James Paget's dictum is true enough, especially of those included in his second generalisation, which was this: “A great part of our recreation is really the survival in us of instincts and practices which belong to distant ancestors—such as fishing, hunting, clearing forests, making roads, wandering, and picnicking.” Sir James Paget formulated this only as a guess, but, if there be any element of truth in it, the present generation of athletes is “throwing back” with a vengeance.

THE Congress of the Social Science Association, which was opened at Huddersfield on the 3rd inst., continued its sittings during the week. The most important discussion, from a medical point of view, was that which took place on Thursday week, on the influence of the Modern System of Education on the Health of the Country. The question was introduced by Dr. Clifford Allbutt, who singled out two points in the modern system for adverse criticism, viz., the employment of pupil teachers, and the influence of the competitive system. The latter he condemned as uniformly baneful. “There is no single agency,” he said, “comparable to this for straining and exhausting the brain and nervous system, and it is the most wasteful of work and health that could be devised. Its evil effects appear afresh in the next generation, increasing the nervous affections of children.” Mr. E. A. Brown, of Liverpool, and Mr. Hewetson, of Leeds, supported Dr. Allbutt's contention, strongly emphasising the evil result of modern education on the sight. Several medical practitioners spoke to the same effect, and it was resolved, without serious opposition, that the case was quite sufficiently made out to render it



desirable that the attention of the Government should be called to the matter. We have dealt with this subject at great length in an article, which we believe will meet with fairly unanimous approval from the medical profession.

ON Friday the subject for discussion in the Health Section was the Spread of Disease through the medium of Milk. Mr. F. Vacher, Dr. Britton of Halifax, and Mr. Ernest Hart read papers on the subject, and, after a long discussion, the Section resolved unanimously to ask the Council of the Association to consider the desirability of recommending to the Government the adoption of further measures for preventing the spread of zymotic diseases through the milk-supply of towns. Many authorities on epidemiological problems are beginning to question whether, in many cases, epidemics have not been traced to the milk-supply without a sufficiently rigid scientific demonstration. It is almost impossible to believe that in the fifty-three epidemics of typhoid said by Mr. Hart to have been traced to impure milk the evidence has amounted to absolute demonstration. Even in the recent Camden Town epidemic, in which there is a much larger and more definite body of evidence pointing to milk-infection than in the case of many other epidemics put down to a similar cause, the demonstration by no means amounts to certainty. But we must defer comments on this particular case till next week. The simple fact is, it has become the fashion to condemn the dairy in default of other discoverable cause. This is a point which needs guarding against.

ON Saturday, Mr. George Smith, the well-known philanthropist of Coalville, called attention again to the little wanderers by land and water whom he has taken under his especial charge—the canal-boat children, and the gipsy van and show children. Amongst many other facts substantiated by him in support of his proposal for further legislation, he stated that within the last few days small-pox had been conveyed to Ashton by a van, and a score of persons were dangerously ill.

ON Monday, Mr. Pridgin Teale delivered his address as President of the Health Section. It was unfortunate that it was not delivered earlier, as it dealt with a subject which had been previously fully debated in the section, viz., the tendency of Modern Education to influence Physical Growth and Development. Mr. Teale fully confirmed Dr. Clifford Allbutt's assertions, and on the pupil-teacher question was equally emphatic. Speaking on this point, he said that he had been simply horrified at the human slavery and torture invented and carried out in this country to meet the demands of an inexorable examination. Mr. Teale admitted that hard work and long hours did not of themselves constitute over-pressure in education or overwork in life. It was the work done under perpetual worry and anxiety, and under the compulsion of want of time, that tried the health of young and old. It was because we were importing into modern education hurry, worry, and anxiety, selfishness, competition, and a feverish desire for success, prize-winning and place-winning—all tending year by year to grow in intensity and to become more powerful agents—that he foresaw injury to health, degradation of intellect, and a departure from a true ideal of education. Surely it had become the duty, and would become the function, of the medical profession to raise its voice and make itself heard on the sanitary aspect of education, as it has made its influence tell in other departments of sanitary science.

ON the same day the Health Section discussed the Habitual Drunkards question, and, by a large majority, carried Dr.

C. R. Drysdale's resolution—"That the Council be recommended to impress upon the Legislature the importance of removing the present hindrance to the voluntary admission of dipsomaniacs into retreats, and also of conferring on magistrates, in certain well-marked cases, the power to commit such persons to such retreats." On Tuesday, papers were read by Mr. Norman Porritt on the relation of Baths and Washhouses to the Social Well-being of the Lower Orders, by Dr. C. R. Drysdale on Infantile Mortality in various European Countries, and by Dr. E. T. Tibbits on the position and influence of Medical Men in Society. On Thursday the members of the Congress separated, with mutual congratulations at the amount of serious work they had put behind them.

THE health of the metropolis still continues satisfactory, the recent short spell of cold having apparently had little effect upon the death-rate. For the last three weeks the rate has not exceeded 17 per 1000, and the average for the whole quarter just ended was not more than 18·8. Scarlet fever continues to be the most fatal of the zymotic diseases, and accounted last week for 63 deaths, while there were only 3 deaths from small-pox, and 11 from measles. Seeing that this is the season chiefly favoured of typhoid, 21 deaths in the week from that disease cannot be considered as an excessive number, though even this small death-roll, especially when added to the 19 deaths caused by that other judgment on filthiness, diphtheria, should be sufficient to act as a reminder to the sanitary conscience. This month is a sort of neutral zone between the catarrhs of summer and the catarrhs of winter. The deaths from the former were 54, including 6 from simple cholera; from the latter, 191—still, in spite of the anti-cyclone, 69 below the corrected weekly average. In the great towns this week was also exceedingly healthy. In seventeen towns out of twenty-eight the death-rate was below 20, and in nine it was below 16·0. Huddersfield heads the list with a rate of 12·3, a statistic no doubt very satisfactory both to the hosts and guests at the Social Science Congress, to whom it will be a matter of interest to determine whether it was due to anything more than a coincidence.

ANOTHER unfortunate case, illustrating the special danger of sudden obloquy and loss of reputation to which even the most rigidly honourable practitioner may be exposed through spite on the part of patients or fussiness on the part of the police, came before the magistrate at Hammersmith Police-court on Tuesday last. Mr. Haffenden, a well-known practitioner of Kensington, and a female patient of his, were arrested, and accused conjointly, at the instance of the Director of Public Prosecutions, of being concerned in the performance of an operation and the administration of medicine for an unlawful purpose. The information appears to have been given to the police by an acquaintance of the patient's. It was stated on behalf of Mr. Haffenden that there was a complete answer to the charge, and until that is heard the fewer words on it the better. It is difficult to believe that so highly respected a practitioner as Mr. Haffenden can, by an act of omission or commission, have exposed himself to the risk of a serious prosecution for *malap Praxis*, or even worse. But the only alternative is to suppose that the Director of Public Prosecutions has been culpably careless in sifting the evidence, and permitting police action in a case in which any blunder on his part would be nothing short of a crime.

It has been decided by the authorities of the Vienna University to omit this year the ceremony with which the new Rector is usually installed. They have not forgotten



the lesson of the Ring Theatre, and profess to be afraid of a similar disaster occurring in the time-honoured theatre of the University, should any alarm of fire or panic of other sort break out. As the outgoing Rector is not very popular with the students, such an occurrence is thought to be not altogether unlikely. The medical organ of Vienna approves of the decision, for at this year's ceremonial the studentry would include such a large quantity of combustible material as to render an explosion and subsequent panic almost inevitable. The undergraduates it is well known are as enthusiastic in their expressions of regard as they are unmeasured in their demonstrations of aversion, and there is good reason to fear that the inevitable explosion would lead to such a tumult in the theatre that, considering the paucity of exits, the ex-Rector might find it difficult to make his escape.

THE following books have been published in the course of the last week in England and abroad:—"The Field of Disease," by Dr. B. W. Richardson; "My Patients, being Notes of a Surgeon," by M. Fenn; "Die Thierischen Parasiten der Menschen," by M. Braun; "Zur Entwicklungsgeschichte des breiten Bandwurmes," by M. Braun; "Le Choléra," by A. Proust. The following books are announced, but have not yet appeared:—"A Manual of Chemistry, Organic and Inorganic," by Alphonse Dupré, F.R.S., and H. Wilson Hake; "A Manual of Botany," by William Ramsay McNab, M.D.; "Poisons: their Effect and Detection," forming the second volume of the re-issue of "Practical Chemistry," by A. Winter Blyth, F.C.S.; "Kohat, Kuram, and Khost," reminiscences of the late Afghan War, by Dr. Gilliam Thomsett.

THE following is a list of the most noteworthy papers in the current numbers of the chief foreign medical journals:—*Le Progrès Médical* contains, besides reports of several societies, the following articles: "Leçons sur la Tuberculose parasitaire," by M. Debove; "Sur quelques Symptômes qui peuvent se montrer chez les Hémiplegiques, du Côté opposé à l'Hémiplegie," by M. Paul Dignat; "La dernière Maladie de M. le Comte de Chambord," by M. Vulpian. In the *Gazette Médicale de Paris*—"Sur un Cas de Menstruation précoce," by M. Cabadé; "Reflexions cliniques sur l'emploi du Corset de Sayre dans le Traitement de la Scoliose," by M. Lucien Picqué. In the *Gazette Hebdomadaire de Médecine et de Chirurgie*—"Formes et Pathogénie du Purpura," by M. P. Merklen; "Étude critique sur la Tuberculose articulaire," by M. Mabboux; "La Fièvre Hystérique," by M. Briand. The *Gazette des Hôpitaux* for October 6 contains a lecture by M. Landouzy on a case of Hepatic Typhus; and that for the 9th, comments by M. Trélat on cases of Parotid Tumour and Ovarian Cysts operated on by him.

THE *Centralblatt für Gynäkologie* contains an original article on the Instrumental Measurement of the Conjugata Vera, by Dr. Kabierske, jun.; and the *Centralblatt für Chirurgie*, one on a New Form of Stretcher, by Dr. P. Hase, Staff-Surgeon. The *Berliner Klinische Wochenschrift* has the first part of an article by Professor Liebermeister on Recent Advances in Therapeutics; a paper by Dr. Zenker on an hitherto undescribed form of Neurosis from Occupation (viz., paralysis of legs and feet in potato-gatherers); a case of Diaphragmatic Pleurisy, by Dr. Jacobasch; and one of Echinococcus in the Brain, by Dr. Kühn. The *Wiener Medizinische Wochenschrift* contains a clinical study on Unsound Mind, by Dr. J. Weiss; and articles on the Suture of Divided Nerves, by Dr. H. Schramm, and on the Origin of Traumatic Tumours, by Dr. Zesas.

THE medical profession has lost heavily by death within the last week or two. Dr. Henry Dunbar, of Helensburgh, who died at the age of sixty-seven, was known rather for his literary than for his medical achievements, though during the Crimean war he rendered distinguished service in the French Transport Service, and received a decoration from the French Government in recognition thereof. He was familiar to the literary world as the author of a Concordance to the Odyssey, published at the Clarendon Press. Dr. G. H. Evans, who died at a comparatively early age after some years' disablement from professional work, appeared at one time to have before him a most promising career as a London physician. He came into the profession late, and brought to it a wide general culture and a very varied experience of life. He had a large circle of friends, and his disappearance from the ranks some six years ago was the subject of general and deep regret. Robert Harold Ainsworth Schofield, of the China Inland Mission, who died on August 1 at his post in North China, after a brief illness, was well known at Oxford, and subsequently at St. Bartholomew's, as a quiet, unassuming, and able student with an immense faculty for work. He passed more examinations than almost any man of his time. He was a Fellow of the Royal College of Surgeons, a Bachelor of Science of the University of London, and a Bachelor of Medicine of the University of Oxford. He served with distinction as a surgeon in the Servian and Russo-Turkish campaigns, and subsequently went with enthusiasm to bury himself as a medical missionary amongst the Chinese. To these names we may add that of another university man, also an enthusiast, who was cut off some three weeks ago at an early period of his professional career—Frank Theod Twining, Assistant Medical Officer at the Homerton Fever Hospital. Dr. Twining was a Cambridge and St. Thomas's man. He was devoted to his work, and persevered in it till the very day before his death. His loss is deeply deplored by all who came into intimate contact with him. The deaths are also announced of Mr. Evans, of Cardiff, and Dr. Haughey, of Crewe, both suddenly cut off in the midst of their professional labours.

#### SUCCESS.

At a time when the new student of medicine, in town and country, is entering upon the first step of his labours, and when the whole subject of our profession, its duties and its prospects, is brought forward for its annual airing upon the introductory platform, it may not be uninteresting to inquire to what end this striving crowd, practitioners and students, are pressing forward, what is the future to which they may tend, and what the means and qualifications by which their dreams of future good may perchance be realised. "I wish to succeed in my profession," each young aspirant will say as he takes his first step into the arena where so many struggle in vain. But what does this success mean, and how may it be obtained? Its extent is, after all, except to the favoured few, most moderate, and it is obtained only by a combination of physical, mental, moral, and material advantages which, it must be confessed, would produce a more enduring fame and more immediately practical results in many other more pleasant and less laborious walks of life. Few, very few, and far between are the chief prizes of our calling. So few are they as to be out of reach of all but the most visionary expectations of the student who has chosen the medical profession as his life-work. No man, it is abundantly evident, can say to himself that, if energy, ability, industry, research, or industrious self-abnegation can achieve it, he will end his days as a rich man or at the top of his profession. And this not alone from the



uncertainty of human life or health, but because the rare union of physical, mental, and moral powers to which each man who has ever so succeeded owes his success must be combined again with such a train of unhoped-for and unforeseen circumstances as to be beyond the reach of all human calculation and device.

Set this aside, then,—call this attainment of high professional reputation and wealth not merely success, but success of the most exceptional order, which we can by no means take into our expectations,—and what remains as an end and aim for the average good-class aspirant to look forward to? He has come into the profession, it has been said, in which there is the greatest certainty of making a competence, and the least probability of making a fortune. He can neither achieve the one, nor have the slightest prospect of the other, without a life of toil, with much of mortification and disappointment to embitter it, and a death probably in harness at its close. But why, if all this be true, as we believe, are the ranks so constantly filled from below; why is more and more capital year by year invested in the purchase or foundation of practices? It is not from the tempting prospect of exceptional return for talents and capital so invested, nor assuredly from the high social estimation in which we are held by the world around. It is, we maintain, from the fact that in our profession alone can the possession of reasonable talents, and the expenditure of reasonable capital, yield a life full of interest, variety, and emulation, with such moderate but certain pecuniary returns as may represent to the man of average ambition and content that *success* which has been his aim from the commencement of his career. Any man, let us say, who, having entered the medical profession by deliberate choice and desire, maintains himself and his family, finds an engrossing and unmonotonous occupation, and makes such provision for those depending upon and succeeding him as may insure their start from the same social platform as that which has been their standpoint during his life, may be said to have enjoyed such measure of success as he should have expected, and to be above rather than below the average as a recipient of the gifts of fortune. The region of failure lies far below, the sphere of rank and riches immeasurably above, this haven of average success and contentment.

This success which we have so briefly depicted as the reward of the great, the overwhelming proportion of those who embrace medicine as a calling, may be obtained, of course, in various ways. It may fall early, but more often comes late, to the successful and distinguished student who devotes himself and his talents to the instruction of others, or who, embracing pure practice or a specialty, enters the crowded ranks of metropolitan or provincial consultants. It falls naturally, easily, and in due course to the general practitioner, the member of the rank and file, the main body and power of the profession. But in every case, so far as actual material success may be computed, the standard which we have indicated above is the one by which it must be judged. We have not space here to consider the factors, which we have said to be physical, mental, moral, and material, by the combination of which this success may be obtained. We can have no wish to undervalue our calling, or to favour any low view of its ends and aspirations. We wish merely to place the probable future fairly before those who are now entering upon their career and studies. And if our words have any weight at all with those who are joining, or intend to join our number, let us hope that the salutary effect may be that of moderating hopes unreasonable and unlikely of realisation, and not of damping the ardour and energy of those who have become members of our profession, not for what it will bring,

but for what it is. For it is in the rewards of self-respect, of successful work, of scientific research, of aid to the progress of knowledge, that the real end of our desires should be sought, and in these alone can the satisfaction of the true scientific ambition be found. Work we must, constantly, and not always hopefully, believing that this work is, for the most part, its own reward, and that it is, as has been truly said, “better than what we work to get.”

#### THE PROPOSED MARINE OBSERVATORY.

A PROPOSAL for the foundation of an observatory on the British coast for the study of marine animals and plants in relation to fish and fisheries has just been issued, bearing the signatures of Professor Owen, Dr. Carpenter, Professor Burdon Sanderson, Professor Ray Lankester, Sir John Lubbock, Professor Michael Foster, Mr. Adam Sedgwick, Mr. Romanes, Professor Flower, Professor Jeffrey Bell, Mr. P. Sclater, Mr. H. N. Moseley, Dr. Milnes Marshall, and other scientific men. It is proposed that the observatory, says the circular, would be in charge of a competent resident superintendent, and fitted with aquaria, laboratories, and apparatus, and possessed of boats and dredging apparatus. Two or three fishermen would be kept in the pay of the observatory. The institution thus organised would be frequented at all times of the year by naturalists desirous of carrying on original investigations relative to the life-history and structure of marine organisms. Accommodation for as many as six such naturalists might be provided. It is calculated that £8000 would be sufficient to secure a site and erect and furnish a suitable building; whilst £500 a year should be secured as a minimum income for the purpose of paying a salary of £250 a year to a resident superintendent, minor salaries to fishermen and attendants, and of meeting the small current expenses. The income of the institution might be materially aided by the payment of a fee (say £5 a month) on the part of those naturalists making use of its resources. The opportunity for securing the £20,000 necessary for the inauguration of such a zoological observatory has presented itself in connexion with the International Fisheries Exhibition. Should there be, as there is reason to hope, a large surplus fund in the hands of the Committee of the Exhibition at its close, it is proposed to bring the suggestion of the establishment of a Marine Zoological Observatory before the Committee, and to endeavour to obtain the support of that body for the scheme.

#### ROYAL COLLEGE OF SURGEONS.

THE Calendar of this institution has just been published, from which it appears that there are now 1166 Fellows of the College, of which number 593 obtained the distinction by examination, 3 as *ad eundem* Fellows of the Irish and Scotch Colleges, and 5 elected to it as members of twenty years' standing, under Section 5 of the Charter of 15th Vict. Of Members there are no less than 16,258, making, with the Fellows, a small army of 17,424. There are 971 Licentiates in Midwifery, and 521 Licentiates in Dental Surgery. The annual income during the collegiate year from July, 1882, to July last appears to have been, from all sources, the large sum of £19,374 19s. 2d., and the expenditure £19,446 8s. 5d. There appears the respectable balance at the bankers at Midsummer-day last of £2087 10s. 4d. At the Primary Examination for the Fellowship there were 122 candidates, of which number 68 passed and 54 were rejected for six months. At the Pass Examination there were 34 candidates, 17 of whom passed, and as many were rejected. For the Membership there were at the Primary Examination 1119, of which number 795 passed, 289 were referred for three months, and 35 for six months. At the



Pass Examination for the same distinction there were 769 candidates; 343 were admitted Members, 44 were referred for three months, 224 for six months, 10 for nine months, and 3 for twelve months, making a total of 281 who had failed to acquit themselves to the satisfaction of the Court of Examiners. The total number of diplomas issued was 435, as previous candidates rejected in Medicine subsequently obtained a recognised legal licence from other authorities.

#### MR. GEORGE HIND, F.R.C.S.

It will be a source of regret to a large section of the members of our profession to know that this gentleman, after a long and laborious career of usefulness, has been compelled, by the pressure of advanced age and by painful bodily illness, to abandon the courses of instruction in anatomy and surgery which he has conducted to large classes for a great number of years. In addition to these afflictions, it is still more sad to know that, after a life of incessant toil, he is suffering from pecuniary want—a result brought about by no fault of his own, but solely by the causes just referred to, which have for several years past prevented him from the same energetic discharge of his duties as he formerly manifested. Under these circumstances many of his friends and former pupils have constituted a committee for his relief, comprising some of the most distinguished members of the profession, and the first meeting was held on Thursday, the 4th inst., at the Briton Life Assurance Office. Dr. B. W. Richardson is the Chairman of the Committee; Professor Tweedy, 24, Harley-street, is the Treasurer; and the Messrs. Coutts, Strand, will be ready to receive subscriptions, to be addressed in favour of the "Hind Fund." Over £200 has been already received, as will be seen from the list published in another column. The object of the Committee is twofold, namely, to provide for Mr. Hind's immediate necessities, and to form a permanent provision for his declining years.

#### ST. JOHN AMBULANCE ASSOCIATION.

THE Central Executive Committee has just issued its report for the current year. The number of centres and branches now established at home and abroad amounts to 190, while in addition many hundreds of "detached classes" for both sexes have been held in the United Kingdom, the Continent, and the colonies, among the more recent foreign centres being Gibraltar, Bombay, and the "Victoria Centre," Australia. During the year 9069 certificates have been awarded, of which 1139 were to women for the nursing course, 3322 to women for the "first aid" course, and 4608 to men—making a grand total of at least 70,000 certificates issued since the institution of the Association in 1877. At one centre alone (Middlesbrough-on-Tees), eighteen classes, numbering 600 pupils, were examined in one week. A noticeable feature in connexion with this work, and one that unmistakably indicates its great utility, is the support and co-operation accorded to it by the medical profession, many leading members of which are actively engaged in its extension both at home and abroad. As in previous years, it has been found that those engaged in dangerous occupations, such as colliers, miners, railway *employés*, factory hands, firemen, etc., show great eagerness in attending the classes, the benefits of which have lately been extended to the Police at the Naval Dockyards, the Mercantile Marine, and the Metropolitan Fire Brigade. Amongst various items of the year's work, such as the institution of the "Egyptian Relief Fund," which culminated in the establishment of the Victoria Hospital at Cairo by Viscountess Strangford, and the formation of a Transport Department, the report states that, by permission of the Commissioner of Works, ambulance

stations have been formed at Hyde-park, and litters and *matériel* deposited at the lodges at the Marble Arch and Hyde-park Corner, in charge of the police, most of whom have attended the classes. Attention is drawn to an admirable plan, illustrated by diagram, suggested by Lady Brassey, and already carried into effect at Battle and elsewhere, for the grouping of neighbouring villages and outlying districts as the subsidiary sections of larger centres; and after an interesting statement as to the issue of stores, the value of which for the year has amounted to over £3000, and an extract from a report to the Home Office by the Inspector of Mines for Lancashire urging the value of the Association's work, an urgent appeal is made in conclusion for increased personal co-operation and pecuniary support to a movement now essentially national in its operation and usefulness.

#### ENTRANCE-SCHOLARSHIPS AT THE LONDON HOSPITALS.

AT St. Bartholomew's Hospital College, the Senior Scholarship in Science, of the value of £130, tenable for one year, has been awarded to Mr. Major Brown, B.A., of Downing College, Cambridge, and Mr. James George Ernest Colby, B.A., of Wadham College, Oxford—equal; the Junior Scholarship in Science, of the value of £130, tenable for one year, to Mr. Horatio George Adamson and Mr. Frederick Frost Blackman—equal; and the Jeaffreson Exhibition, of the value of £50, to Mr. John Wilkie, B.A., of Trinity College, Cambridge. The Scholarship for the most successful candidate from Epsom College at the last Preliminary Scientific Examination of the London University has been awarded to Mr. Ludvic William Darra Mair.—At the Charing-cross Hospital School of Medicine, the Entrance Scholarship of £30 has been awarded to Mr. Raymond Edward Fasnacht, and that of £20 to Mr. William John Radford. Mr. A. H. Hooker, F.C.S., has been asked by the Medical Society of this Hospital to deliver the opening address at the meeting of the Society on the 12th inst.—At St. Mary's Hospital Medical School, four Entrance Science Scholarships of £50 each have been awarded respectively to Mr. J. Bays, Mr. N. C. Ridley, Mr. W. A. Bottomley, and Mr. H. A. Kidd; and two Exhibitions of £26 5s. each to Mr. M. M. Bird and Mr. L. P. Gibson.—At the Middlesex Hospital Medical School, the Entrance Science Scholarship of £50 has been awarded to Mr. H. A. Kidd; the Entrance Scholarship of £25, tenable for two years, to Mr. W. B. Cockill; and the Entrance Scholarship of £20, tenable for two years, to Mr. C. G. Matthews.—The Entrance Scholarship of £100 at St. Thomas's Hospital has been awarded to Mr. C. W. Cooke, Merchant Taylors' Exhibitioner, and that of £60 to Mr. Frank Fawcett.

#### GRANTS FOR SCIENTIFIC RESEARCH.

AT the last annual meeting of the British Medical Association, held at Liverpool, it was decided, on the recommendation of the Scientific Grants Committee, to authorise the Council to offer two research scholarships, of the value of £150 each per annum, tenable, at the discretion of the Scientific Grants Committee, for three years. Application should be made at once, addressed to the Honorary Secretary to the Scientific Grants Committee, in order that they may be placed before the Scientific Grants Committee at their meeting on the 17th inst. The following scientific grants were also made:—Dr. A. Waller, 21, Craven-road, Westbourne-terrace, W.: A grant of £20 for defraying the expense of work being carried out for Dr. Waller by Messrs. Elliot, for an examination of certain points relating to Animal Electricity, more especially Elcetrotonic Phenomena and Internal Polarisation. Dr. Thin, 22, Queen Anne-street,



W.: £20 in aid of the expenses of a research into the Bacillus Lepre, and its Transmissibility to Animals by Inoculation. Dr. A. Lingard, 49, Lambeth Palace-road, S.W.: £50 in aid of an inquiry into the Pathology of a Peculiar Contagious Ulcerative Disease in Calves, resembling Noma (Gangrenous Stomatitis in the Human Being). Dr. Sidney H. Martin, University College, Gower-street, W.C.: £5 in aid of a research into the Action of Papain. Dr. Imlach, 16, Canning-street, Liverpool: £50 renewed grant in aid of a methodical investigation on the question of Bovine Tuberculosis in Calves and other Young Animals through the Milk. Dr. Francis Warner: £25 renewed grant for a research on Muscular Movements by means of the Graphic Method, such movements being considered as signs of the Conditions of the Nerve-Centres. Dr. Astley Cresswell: £30 for an observation on the Temperature of Adults, under varying circumstances, during Sea Voyage. Dr. Heneage Gibbes: £20 towards the expenses of an investigation into the Chronic Change of the Blood during Inflammatory Action.

#### THE MASTERSHIP OF THE COOMBE LYING-IN HOSPITAL, DUBLIN.

IN the *Medical Times and Gazette* for September 1, 1883, allusion was made to a movement then on foot to have the usual seven-years' term of office as Master of this Hospital prolonged in the case of the present very popular, able, and efficient Master, Dr. George H. Kidd. It was proposed to effect the object in view by memorialising the Lord Lieutenant, and obtaining a Queen's Letter to amend, or rather to ride rough-shod over, the charter of the institution, which provides that the period of office of each Master shall not exceed seven years. The Irish Executive have refused to grant a Queen's Letter, so that the provisions of the charter will be preserved intact. The *Freeman's Journal* comments as follows on the matter:—"On all sides the decision of the Government to preserve the Charter intact will be received with extreme satisfaction. To have granted the Queen's Letter would have created a feeling of intense bitterness, which could not but be most detrimental to the best interests of the institution and profession. In opposing it ourselves we did not forget the eminent abilities of the present Master of the Coombe Hospital, and his title to the highest trust and honour which the institution could confer on him. But we felt it to be singularly unfair that extra pains should be taken to run one of the most respected and successful practitioners in the city a second time for the Mastership against the younger men who were legally eligible for the office, and who had yet to win their spurs."

#### EXTENSION OF BIRMINGHAM GENERAL HOSPITAL.

THE Committee of the Birmingham General Hospital have gratefully accepted an offer from Mr. Jaffray, who has been long associated with them in their benevolent work, to build a branch hospital. It has long been felt by the Committee and staff of the General Hospital that, having regard to the present magnitude of that building, and the crowded state of the neighbourhood, no further extension of the actual premises was desirable or even possible; yet the demands upon the charity are much in excess of the accommodation, and are growing year by year. The number of inmates afflicted with chronic disorders in this, as in most other hospitals, is felt to be a serious tax upon its resources, and it is in this department that relief is chiefly needed. Mr. Jaffray's gift is specially designed as a solution of this difficulty. He proposes to build a suburban hospital in connexion with the General Hospital, in which chronic and non-contagious cases may be treated. Towards the fulfilment of this pur-

pose he has secured an eligible freehold site within easy distance of the town, and caused plans to be prepared for a building capable of accommodating fifty male and female patients, with the requisite offices for attendants and servants, so arranged that an extension can readily be made whenever the necessity for it shall arise. The land and the building to be erected upon it he offers as a free gift to the governors of the General Hospital in trust for the public. The cost of the hospital and land is approximately estimated at £20,000. The Committee, in accepting Mr. Jaffray's offer, subject to the approval of the governors or subscribers, have summoned a meeting of the latter for November 7, to receive a report upon the subject. Since the announcement of the gift, four gentlemen interested in the Hospital have promised £1000 each towards the endowment.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-ninth week of 1883, terminating September 27, was 836, and of these there were from typhoid fever 36, small-pox 4, measles 5, scarlatina 4, pertussis 12, diphtheria and croup 26, erysipelas 6, and puerperal infections 1. There were also 31 deaths from acute and tubercular meningitis, 170 from phthisis, 19 from acute bronchitis, 39 from pneumonia, 105 from infantile athrepsia (26 of the infants having been wholly or partially suckled), and 35 violent deaths. The deaths in Paris continue to be extremely few in number, and several years have elapsed since so small a number as 836 has been registered. The affections of the chest, as acute bronchitis of children and pneumonia, are at about the usual mean for the time of year; and the athrepsia of young infants exhibits a more than usually rapid decrease on the approach of autumn. During the week there were 1262 births (613 males and 649 females—those of females thus still preponderating), the legitimate numbering 900, and the illegitimate 362.

#### CINCHONA CULTIVATION IN INDIA.

DR. KING, Manager of the Department for Cinchona Cultivation in Bengal, states, in his report for the year 1882-83, that the total number of cinchona trees of all sorts at the close of the year was 4,711,168, namely, red (*Cinchona Succirubra*) 3,713,200, yellow (*Calisaya Ledgeriana*) 662,998, hybrid unnamed variety 304,378, and other kinds 30,592. The crop of the year, the largest that has yet been harvested on the plantations, amounted to 396,980 lbs. of dry bark, of which 372,610 lbs. were of *Succirubra*, 22,120 lbs. of *Calisaya* and *Ledgeriana*, and 2250 lbs. of hybrid bark. By far the largest portion of the produce was made over to the factory for conversion into cinchona febrifuge, while about 41,800 lbs. of yellow and red barks were sent, at the request of the Secretary of State, to London, to be there converted into various forms of febrifuge, and returned to India for trials by the Medical Department. An attempt has been made by the Superintendent to introduce the *Remija* plant, which is a genus botanically allied to cinchona. It is said to be less particular than cinchona as to soil and climate, and produces a quinine-yielding bark under the name of *Cuprea*. This bark forms a very large proportion of the quantity of quinine bark imported into Europe. Although the first attempt to grow the plant in the Mungpoo plantations has not been quite successful, Dr. King entertains hopes of successfully acclimatising it when he is able to procure a more adequate supply of seed. Dr. King has eventually succeeded in obtaining an analysis of the bark renewed on *Succirubra* trees that had their original bark removed by the shaving process introduced by Mr. Moens, the distinguished Director of Cinchona Cultivation to the Dutch Government. The results are thus described



by Dr. King:—"The bark renewed rather slowly, but the analysis shows that it is very rich both in quinine and cinchonidine; and there can be no doubt that in countries where red bark trees are perfectly at home, and where their continuance in good health and vigour for a long series of years can be absolutely counted on, this shaving process must be a very excellent one."

#### LUNACY IN SCOTLAND.

THE twenty-fifth annual report, just issued, of the General Board of Commissioners in Lunacy for Scotland, shows that the number of lunatics reported by them on January 1 last was 10,050, of whom 5606 were females and 4904 males—1654 being maintained from private sources, 8793 by parochial rates, and 63 at the expense of the State, in the lunatic department of the General Prison, Perth; 203 were inmates of training-schools for imbeciles, and of these 120 were supported by friends, and 83 by parochial rates. There was an increase in the year of 14 registered lunatics in private establishments, and an increase of 135 pauper patients in asylums and lunatic wards of poor-houses; an increase of 1 in the General Prison, and of 5 in the training-schools for imbeciles. The expenditure for pauper lunatics was £210,550 13s. 8d., and of that £10,211 2s. 10d. was contributed by relatives and others, and £79,711 17s. 5d. by Government.

#### THE ADVANTAGES OF SANITARY CO-OPERATION.

ONE of the most valuable suggestions made by Professor Humphry, in his recent address to the Sanitary Institute, was that a Sanitary Department, under a special Minister, should be instituted. At present there is very little formal co-operation amongst the neighbouring sanitary districts; but, with the formation of a central authority, all the sanitary officers throughout the country could be brought into harmonious relations with one another and with the central department. And not the least of the advantages to be expected from such co-operation would be that the wants of one district might be speedily communicated to others, and timely preventive measures taken against the spread or transmission of disease. In his report on the sanitary condition of Cambridge for the year 1882, Dr. Bushell Anningson, the Medical Officer of Health, illustrates the necessity of co-operation amongst health officers of different districts if contagious diseases are to be kept in subjection. Alluding to small-pox, he says no death was registered from this cause in Cambridge during the whole year, neither did any case occur so far as his information extended. But this fortunate immunity was only secured through the practice of extreme vigilance. In one instance, thanks to the prompt information conveyed to him by telegraph from Dr. Turner, the medical officer of health for several Hertfordshire authorities, a party of tramps were intercepted at a common lodging-house on the Newmarket-road, who had been exposed to the infection of small-pox, and were on their way from Buntingford to Cambridge, *via* Royston. Dr. Anningson failed to discover them at Royston, but when traced to Newmarket-road he found that none of them were suffering from the disease. They were, however, kept under observation until the limit of incubation of the disease had passed; and the policy of this proceeding was substantiated by subsequent information, which disclosed the fact that both the husband and father-in-law of a woman of the party had died of small-pox in the workhouse infirmary at Buntingford. Dr. Anningson further records an opinion that scarlet fever is kept active in Cambridge by the migration of persons attending the fairs which are held in the precincts of the town on Midsummer Common. During the

year under notice there were fifteen deaths recorded from this cause—a larger number of fatal cases than has been returned in any of the preceding seven years.

#### STIMULANTS IN PARIS HOSPITALS.

THE contract just completed for six months' supply of wine, and for three months' of spirits, to the hospitals of the city, are for these periods 1,245,000 litres of wine, 20,000 litres of common spirit, 10,000 litres of rum, and 3000 litres of brandy. The different kinds of wine are enumerated, and various quantities of each have to be supplied. Among them are red Bordeaux of the 1881 vintage, white Bordeaux of 1879, white Spanish wine, Roussillon, and Lapalme. These statistics have especial interest at the present time, from the recent protest of an eminent French physician, officially employed, against the excessive use of stimulants in these hospitals.

THE German Cholera Commission, headed by Dr. Koch, is now at Damietta, still continuing its investigations.

MR. DAVID BOGUE will publish, on October 25, the first number of an illustrated magazine, to be called the *Science Monthly*.

THE electors of Chalons have recently chosen a medical practitioner, Dr. Lorranchels, as their representative in the French Chamber of Deputies.

THE Chair of Internal Pathology in the Paris Faculty of Medicine has become vacant, owing to the transfer of M. Jaccoud to the Chair of Clinical Medicine, recently held by the late M. Lasègue.

THE Statistical Society announces as the subject for the Howard Medal for 1884—"The Preservation of Health, as it is affected by Personal Habits, such as Cleanliness, Temperance, etc."

DR. JACKSON, Civil Surgeon of Pachmarree, Central Provinces, India, while out tiger-shooting, was attacked by hornets, and received over two hundred stings. Erysipelas set in, and proved fatal.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 9th inst., Sir William Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £68 was distributed among the several applicants.

THE winter session in the Edinburgh University and the Extra-Academical Medical Schools was partially commenced on Monday, when the practical classes in anatomy opened. The attendance of students, so far as an opinion can yet be formed, promises to be even greater than that of previous years.

THE latest use to which the graphic method has been put is to obtain an exact representation of the shape and size of a body in the depth of a cavity which can only be reached by the finger, by means of an apparatus attached to the finger, with a planchette at the back of the hand communicating with a pencil, which will trace out on a piece of paper all the movements of the finger. Doubtless—though there is no mention of this—arrangements have been made for putting in shading, etc., and making the drawing generally lifelike. The instrument which is to perform this by no means easy feat is the fertile invention of MM. Mallez and Napoli, and goes by the name of the "surgical pantograph."



MR. THOMAS EVANS, one of the oldest practitioners in South Wales, died suddenly at Penarth on Monday afternoon, while at the house of a patient. The deceased was connected with many local institutions, and was Mayor of Cardiff in 1868. He was sixty-nine years of age, and took his membership of the College of Surgeons in 1837.

M. RAMON DE LUNA brought before the Paris Academy of Sciences, on September 10, a memoir, "Cholera from the Standpoint of Chemistry." He is led by his physiological studies to conclude that cholera is exclusively propagated through the respiratory organs, and his chemical inquiries convince him that the only safe treatment is to cause the patient to inhale, with prudence, hypoazotic vapour mixed with air.

M. LANCEREAUX has reported the occurrence in Paris of several cases of undoubted scurvy. Most of the individuals attacked were returned convicts, who had spent a part of their life in prison, and so contracted a predisposition to the disease. In his report M. Lancereaux gives a list of the cases of scurvy observed since 1871, and advises the Government to provide prisoners with a daily supply of potatoes and fresh vegetables throughout the year.

THE Government of Honolulu are considering the advisability of establishing hospitals in different parts of the island under their control. There is at present only one hospital in working order—the Queen's Hospital, established through the instrumentality of his Majesty Kamehamheha IV. and Queen Emma. This Hospital is managed by a corporation, and supported by contributions and a tax of \$2 levied on all passengers from foreign ports landing in Honolulu.

At the last annual meeting of the Society of Medical Officers of Health the following officers were elected for the year ensuing:—Dr. T. O. Dudfield, President; Dr. J. W. Tripe, Dr. W. Armistead, Dr. J. Stevenson, Dr. G. P. Bate, Vice-Presidents; Mr. S. R. Lovett, Treasurer; Dr. J. N. Vinen, Mr. S. F. Murphy, Hon. Secretaries; Council—Dr. Ashby, Mr. W. Blyth, Dr. Bristowe, Dr. Buchanan, Dr. Dixon, Dr. Gwynn, Mr. Jacob, Dr. Rowland, Dr. C. E. Saunders, Dr. T. Stevenson, Dr. Thursfield, Mr. G. Turner. The first meeting of the session will be held on Friday, October 19, at 7.30 p.m., at 1, Adam-street, Adelphi, when the President, Dr. Dudfield, will deliver an inaugural address entitled, "The Need of Unity in Metropolitan Sanitary Administration."

THE PUBLIC HEALTH, GLASGOW.—During the fortnight ending September 29, 1883, there were 449 deaths registered, as against 470 in the fortnight preceding, a decrease of 21, and representing a death-rate of 23 in place of 24 per 1000 living (or, according to the Health Officer's estimate of the population, 21 in place of 23). The death-rate in the first week of the fortnight was 23.2, and in the second week 22.3. The number of deaths below one year of age was 124 in place of 123, and of those aged sixty and upwards 65 in place of 56. The proportion of deaths below five years to the total deaths was 45 per cent. The number of deaths from pulmonary diseases was 128 as compared with 142, representing a death-rate of 6.5 instead of 7 per 1000 living, and constituting 29 in place of 30 per cent. of the total deaths. The number of deaths from diarrhoeal diseases was 33, a decrease of 6, of which number 26 were below five years of age. The number of deaths from fever was 14, an increase of 2; viz., 10 from enteric fever, 2 from typhus fever, and 2 undefined. The number of deaths from infectious disease of children was 39, a decrease of 6; of which number 18 were from whooping-cough, 17 from scarlet fever, and 4 from measles. The deaths from scarlet fever were 5 fewer than in the preceding fortnight.

## PROFESSOR HUXLEY AT THE LONDON HOSPITAL.

On Tuesday, the 9th inst., Professor Huxley, P.R.S., presided at the distribution of the prizes to students of the London Hospital who had been successful in examinations held at the end of the winter session 1882-83, and the last summer session; after the ceremony Mr. Huxley delivered his address on the intervention of the State in the affairs of the medical profession. On what grounds, he asked, is such intervention justifiable? To what extent ought it to go? After what fashion may it be most properly exercised? The ground of intervention is not the protection of the public against incompetence or quackery. If such protection were advisable, it is not practicable, as it would be impossible to prevent anyone from buying drugs or seeking advice of whom he pleased. The right of the State to intervene is based on the fact that it is of great importance to the community that no man shall die without the cause of his death being formally certified; that the law shall be able to appeal to recognised experts in civil and criminal cases; and that the Government shall have a guarantee of the competence of persons appointed to the numerous medical appointments at its disposal. It is no interference with the freedom of medical practice if the Government says to the medical practitioner, "We will not accept your certificate of death, we will not regard your evidence as that of a medical expert, and we will not take you into our service, unless you produce evidence which satisfies us of your medical competency." The State does really restrict itself within these limits in this country. Anybody may practise medicine, but a broad practical distinction is drawn between the practitioners who are in the State sense "qualified" and those who are "unqualified." Practically the "unqualified" practitioner is very heavily handicapped; and if the enforcement of penalties against those who, directly or indirectly, profess to be qualified when they are not so, were somewhat swifter and sharper, it does not appear that the present condition of affairs could be improved. The State has a solid justification for its intervention, and that intervention goes no further than is absolutely necessary. But is this justifiable intervention carried into effect in the best possible manner? To this question the reply given by common consent is a very decided negative. Forty years ago the State accepted any one of certain university degrees, or the diplomas of a given number of medical corporations, or the licence of the Archbishop of Canterbury, as evidence that a medical practitioner was qualified. Every one of these qualifying authorities, of which there were altogether twenty-one, did exactly as it pleased in the way of testing the fitness of its licensees, and there was no limit to the complaisance of some of them. No system could have been better calculated to ruin young men during their student career or to degrade the noblest of professions. At length the scandal became too great, and in 1858 the present Medical Act came into operation, and with it the first attempt—feeble enough, but praiseworthy—to give a rational organisation to the relations of the medical profession with the State. The Medical Council then appointed was to be a sort of Parliament of Medicine, representing the Government on the one hand, and the profession on the other. From this time onwards no candid observer will deny that a rapid and a vast improvement has taken place in the action of the great majority of the licensing bodies, reduced by the Act to nineteen. But the evidence laid before the late Royal Commission showed conclusively that three grave defects remain to be remedied. In the first place, there are still among the licensing bodies some which tout for custom by a low standard of examination; secondly, licences are still gained which do not involve proof of an acquaintance with all the three great branches of medical practice—namely, medicine, surgery, and midwifery; thirdly, the present state of the law does not permit the Medical Council to remove these evils by enforcing equality of minimum examination and the threefold qualification before admitting a medical practitioner on to the Register. The "conjoint scheme," upon which the Act introduced into Parliament and dropped last session was based, proposes to remedy these



difficulties. It may be described as a highly complex and cumbrous machinery, wholly untried and of doubtful efficacy, for the purpose of superseding universities and corporations, the great majority of which are at present doing their work extremely well; while the end in view might be attained easily, and without the least interference with any of the existing bodies which have acquired a high status by doing their duty, by the addition of two simple clauses to the present Act, to the effect—first, that no person shall be placed upon the Register who fails to produce evidence that he possesses a knowledge, of medicine, surgery, and midwifery; and, secondly, that such evidence shall be the certificate of any examining body, a certain number of the members of which are appointed as coadjutors by the Medical Council. The practical effect of this regulation would be that, without the least interference with the prestige or the income of any existing licensing body, the threefold qualification and the equality of minimum examinations would be thoroughly secured. There is no practical difficulty about carrying it out, and, in fact, the Scottish Universities do at this present time appoint coadjutor examiners. Whatever may be the precise plan adopted, the requirement of the threefold qualification and the enforcement of a minimum standard of examination are mere questions of time. For other desiderata we must look partly to the Medical Council, partly to the spontaneous action of the medical community. The course of instruction for the ordinary student is at present overloaded. It is practically impossible to extend the time given to medical studies by the average student over more than four years and beyond twenty-two—that is to say, it cannot be extended forwards; but there is no obvious reason why it should not be extended backwards. If the two years between sixteen and eighteen were given to elementary physics, chemistry, and biology, the student would not only know when he comes up at eighteen a great deal that he has now to learn during the time which ought to be given to medical studies, but he would be prepared for the work before him so efficiently that the four years would be worth five under the present arrangement. A few years ago the scientific instruction indicated could hardly have been obtained anywhere: now it is to be had in all our greater provincial towns. If the Medical Council were to substitute a good examination in elementary physical science for the present futile examination in general education, they would work a revolution in medical education. Another important improvement would be the re-organisation of the London medical schools, in such a manner, that while great hospitals remained as they were at present, the schools of practical medicine in all its branches—human anatomy and physiology, with physiological physics and chemistry—were restricted to two or three central schools of the Institute of Medicine, in which they could be efficiently taught by men who would give their minds to knowing these subjects. Lastly, is nothing to be done in a systematic fashion for the advancement of medicine as a science? A few medical societies, the lectureships at the College of Physicians and the College of Surgeons, the Brown Institute, and the Society for the Promotion of Medicine by Research, we have, but these are not exactly what is wanted. It is fortunate for us that we have no Claude Bernard, no Ludwig, in London just at present; we should not know what to do with them. London has a University just as Paris has, but, unfortunately, our metropolis can show nothing comparable to a Sorbonne or a Collège de France.

### MESMERISMUS CHRONICUS.

It is a matter of surprise to Mr. Edmund Gurney and Mr. Frederic W. H. Myers, the conjoint authors of a lengthy paper on Mesmerism in the current number of the *Nineteenth Century*, that the subject which has for them so much of interest and fascination should have secured so little of public attention in recent years. The phenomena of mesmerism are, they say, easy of reproduction, and are being constantly exhibited on public platforms, and yet the British Association, year after year, takes no notice of them, and men of science, who at one time attempted to explain them away, now simply ignore them altogether. To us, who look at mesmerism

from a different point of view from Messrs. Gurney and Myers, the wonder is not that it should have been neglected, but that it should be again brought forward for discussion, and that educated men should think it worth their while to expend profound thought and precious time in investigating its dilapidated mysteries. The real reason why mesmerism sank into comparative oblivion and contempt, was that sensible men with no pretensions to supersensuous perception saw through it, and satisfied themselves that for every ha'p'orth of fact contained in the experiments performed to illustrate it there was an intolerable deal of trickery and deception. But while mesmerism has descended from the drawing-room and lecture-hall to the kitchen and village school-room, and has been so stultified that no respectable scientific body could entertain it without discredit, it has never lost its interest for medical men, who have always appreciated its morbid relations. The belief in mesmerism, and the manifestations of the so-called mesmeric state, have excited their curiosity quite as much as the dancing manias of the middle ages, and other extraordinary popular delusions. They have studied with edification its rapid spread and epidemic prevalence in the days of its founder, they have traced out its occasional local outbreaks in London and other great cities, when fresh virulence seemed to be imparted to it by some illustrious victim, and they have watched with satisfaction its subsidence in recent years—that subsidence which has filled Messrs. Gurney and Myers with so much regret. Of late we have only had sporadic cases of mesmeric disorder, and these have been of a mild type. The acute stage of the malady is past, and it is now *mesmerismus chronicus* that has to be dealt with. It may be feared, perhaps, that an acute exacerbation will follow the action of the Psychical Research Society in bringing it again into prominence; but a word of judicious warning may prevent any evil of this kind, and it is in the hope of counteracting the mischievous tendencies of the renewed agitation that we now refer to the subject.

In what we have to say regarding mesmerism we shall use plain language, even at the risk of being thought offensive. If "nice customs cur'sy to great kings," they must fall prostrate before the Majesty of Scientific Truth, and where health and reason are concerned there is no room for ambiguity or circumlocution. The results of the medical observation of mesmerism must be faithfully set forth, even should they give pain to those who have taught themselves to regard it as a sort of human transfiguration, raising man above the prosaic meanness of the workaday world, and illuminating him with a glimpse of that light that "never was on sea or shore." Its real nature and tendencies must be revealed even at the risk of shocking those who have become intimate with it. And its real nature and tendencies are essentially morbid and demoralising. The only genuine phenomena in mesmerism, which are better described as the phenomena of hypnotism, are seen exclusively in persons who have an inherited or acquired proclivity to nervous or mental disease; and the repeated production of these phenomena in the same person is calculated to increase the instability of the nerve-centres involved, and the liability, therefore, to grave disorder. Madness, epilepsy, and hysteria have followed immediately on mesmeric operations on delicate subjects, and a long list of ailments might be made out, in the causation of which they have played some part. But the dangers of mesmerism are not confined to the subjects in whom the phenomena are induced. The very belief in it, in those who are not susceptible to what are spoken of as mesmeric influences, is often the offspring or the foster-mother of morbid tendencies. The healthy and well-constituted mind turns away from mesmerism, after a short survey of it, with ridicule or disgust. It may see in it much that it cannot explain, just as it does in an epileptic fit, but it scents its mawkish sickliness and detects its inherent absurdity. But it is not so with the mind that is tinged with that melancholy that is so nearly allied to genius, or that is afflicted with an unhappy craving for the second-rate supernatural. It gloats over mesmerism with delight, thrills at its revelations, puzzles out its problems, and vexes and excites itself into a state of erethism and high tension that is full of danger. We generally find a belief in mesmerism, combined with a belief in other transcendental trickeries and delusions, in persons of eccentric character or weakly superstitious disposition. This description does not, of



course, apply to all who accept Mesmer's creed, or the modifications of it which are in vogue. Strong-minded men have fallen into this error, and vain-minded men who think themselves scientific when they are simply silly; but most medical men will assent to the proposition that believers in mesmerism are, as a rule, neurotic—are, in fact, persons whose continued sanity and freedom from nervous disease could only be insured at a high premium.

As to the demoralising tendencies of mesmerism, they are patent enough. It will not be denied that in public exhibitions of mesmerism there is often introduced a good deal of what Messrs. Gurney and Myers would call "farcical exaggeration," but what plain people would call impudent shamming; and all students of hypnotism know how apt the hypnotic state is to sap the integrity and truthfulness of those who are frequently thrown into it. The disturbance of normal cerebral function induced not rarely enfeebles the will and stimulates in an inordinate degree every furtive feeling. There is an incessant craving for notice, and a cunning delight in simulation, and the subject who commenced honestly enough is soon converted into a miserable impostor. We can conceive few surer ways of undermining the moral sense in youths and maidens than by submitting them to a course of hypnotic experiments. And, if hypnotism is hazardous to virtue, mesmerism, for reasons which will be apparent presently, is tenfold more so.

The imperative duty of the medical profession in relation to mesmerism is discharged when it has clearly pointed out its mischievous tendencies, which we have just indicated. There is no obligation on it—as Messrs. Gurney and Myers appear to think there is—to be constantly investigating mesmeric manifestations. It has made up its mind about these long ago, and satisfied itself that they consist of a small nucleus of genuine hypnotic phenomena, and of a huge mass of wilful deception and vulgar buffoonery. Medical men have enough to do in dealing with the sad realities of life and in the pursuit of legitimate science, and have no time to waste on the curious conundrums that may be prepared for them by idlers, poets, and philosophers, or in the detection of fraud. Mesmerism has been exposed again and again, and until it has some entirely new matter to submit it is not deserving of serious consideration. And there is certainly nothing new in the matter which is brought forward by Messrs. Gurney and Myers. With an air of extreme caution and scientific precision, these gentlemen again introduce to us all the old tricks with all the old sources of fallacy still surrounding them. The unwary reader might imagine that every possible source of error had been eliminated from the experiments described and that they had been scrupulously surrounded by every safeguard that ingenuity could suggest; but the initiated will have no difficulty in discovering their weak points and unprotected flanks. We cannot pretend to criticise adequately a vital experiment of which only an imperfect description is before us; but we can at least point out where the description is imperfect, and, admitting for the moment the accuracy of the statement of facts offered, suggest a more common-place theory than that of mesmerism for their explanation.

Now, in the first place, Messrs. Gurney and Myers' descriptions are defective in that they afford us no clue to the temperament, character, and antecedent history of the subjects upon whom they have experimented. Who is Mr. G. A. Smith, and who is Master Wells? This gentleman and this youth make large calls on our credulity, and it is but fair that we should know something about them before we honour their draughts. What are their respective ages, social positions, and degrees of education? How did they first discover their uncommon gifts? Do they now derive any profit from the exhibition of them, or do they give their services gratuitously to the Psychical Research Society? Do they enjoy sound health, and from what diseases have they suffered in time past? These and a score of other questions we should require to have answered satisfactorily before we received with implicit faith as genuine, and not illusive, the extraordinary performances attributed to them. Some of these performances can of course be tested, although we are not sure that this has yet been done thoroughly—but many of them rest, and must rest, on the good faith of the performers, and we must therefore have convincing evidence that they are not deceiving or self-deceived.

But it is not merely in affording no information about the subjects of their experiments that Messrs. Gurney and Myers' descriptions of them are insufficient. They often fail to exclude very obvious sources of fallacy, which, if they existed, must have vitiated the whole proceedings. Let us take an example. A very full account is given of a series of experiments belonging to the class of mesmeric *rapport*, and designed to illustrate community of sensation between the operator and subject—the operator being Mr. Smith, the subject Master Wells. Wells, in a tolerably deep sleep, was in one room, and Mr. Smith in another, the rooms being separated by very thick curtains. "Perfect silence was throughout observed except for the simple and uniform question, 'Do you feel anything?'—which it was necessary Mr. Smith should ask, as (according to the admitted rule with mesmerised or hypnotised subjects) Wells was deaf to every other voice.

"1. Upper part of Mr. Smith's left ear pinched. After the lapse of about two minutes, Wells cried out, 'Who's pinching me?' and began to rub the corresponding part.

"2. Upper part of Mr. Smith's left arm pinched. Wells indicated the corresponding part."

And so on through eight experiments in all. In seven of these Wells correctly indicated the part pinched in Smith—the left ear twice; the right ear, left arm, chin, neck, and calf of the leg, once each. In one experiment, in which the hair was pulled, he gave no sign.

Now, all this sounds very wonderful until we begin to reflect that we are left without information on a number of points, a knowledge of which is essential to enable us to determine in what manner Smith and Wells were *en rapport*. We are not told positively that the eight experiments described included all the experiments of that kind performed at that time, but we shall assume that they did. We are not told who blindfolded Wells, and how the process was carried out. We are not told the number and names of the persons in the rooms with Smith and Wells respectively, nor whether the curtains were so drawn as absolutely to prevent any person in the one room having a view of any person in the other. We are not told whether Mr. Smith stood stock-still or made passes. We are not told whether in asking his uniform question he employed a uniform tone of voice and used always the same inflection. We are not told whether during the whole ten or fifteen minutes occupied by the experiments Mr. Smith ever coughed, or jingled the money in his pocket, or blew his nose. We are not told who pinched Mr. Smith, or how the order in which the pinches were given was determined. It is clear that Smith and Wells were *en rapport*, but the simplest explanation of their relationship is obviously the most logically correct, and the very last to be arrived at is that of community of sensation. Now, the simplest explanation is that Smith and Wells had a pre-arranged code of signals by means of which Smith communicated to Wells information as to the part on which he was pinched. The human body is only likely to be pinched in a public assembly in a limited number of parts, so a very simple code would suffice. Audible signs for right and left, and for half a dozen parts of the body, would be enough for a very creditable performance. The privacy of a third party to the trick would, of course, facilitate matters still further. The order of pinches to be given might have been settled beforehand; or an accomplice in the room with Wells, but seeing the pinches inflicted on Smith, might have conveyed the needed hint by visible signs to the only nominally blindfolded Wells. We are not prepared to maintain that the trick was played in any of the ways which we have indicated, although Wells' acute and discriminating sense of hearing, as shown in subsequent experiments, makes it probable that he received audible signs; but what we do contend is, that it was simply a trick played with more or less cleverness and apparent artlessness. Any average conjuror will undertake to do all that Smith and Wells did, and a great deal more, for he will convey to his subject the names of a great variety of objects which he touches, the dates of coins, numbers of notes, etc.; and until the mesmerists can do something that the conjurors cannot accomplish, we shall refuse to credit them with extraordinary powers. If there is under mesmeric states a community of sensation between Smith and Wells, that community must extend to the nature of the sensation as well as its locality; and when the latter is able, under conditions which we could prescribe, to reproduce accurately, both as to place and character, a series of sensations experienced by the former such as these



—heat on the second joint of the left ring-finger, cold on the left knee-pan, a prick on the right little toe, a draught of wind on the neck, rubbing of the left eyelid, pinching in the right arm-pit, sweetness, bitterness, perfume, etc.—we shall begin to think that his accomplishments are worthy of a moment's attention.

In the more complex experiments narrated by Messrs. Gurney and Myers, the defects of description and loop-holes for doubt are far more numerous than in the comparatively simple ones that we have selected for criticism. We cannot here analyse these experiments, although it would be amusing to do so, but, in connexion with one series of them, we must certainly express our surprise to find an ardent anti-vivisectionist like Mr. Gurney running the prongs of a carving-fork into the fingers of "a human boy," as Mr. Chadband would have called him, and burning the core of his nails with a lucifer-match.

It will require a good deal more evidence than the Psychical Research Society has yet been able to adduce to convince medical men that water over which mesmeric passes have been made conveys a tingling sensation to the tongue, that a patient deaf to all shouting in her ears hears a whisper in the pit of her stomach, and that another patient can read a book with the palm of her hand on the nape of her neck. Such cases are more suitable for discussion in the debating society of a lunatic asylum than by men who have enjoyed a scientific training. The only circumstance that would justify medical men in again examining mesmerism with a view to its refutation would be the serious disturbance of the public mind by the deliverances of the Psychical Research Society. Then it might become their duty to unmask the delusion once more; and for that purpose we should recommend a good working committee composed of three practical physicians accustomed to the observation of nervous diseases, three physiologists, one professional conjuror, and an experienced police-officer. We feel confident that a committee thus constituted would very speedily explode modern mesmerism, and perhaps the Psychical Research Society also.

### DR. AIRY ON DIPHTHERIA PREVALENCE AT COGGESHALL, IN ESSEX.

ON the report of Dr. Abbott, Medical Officer of Health, that diphtheria was epidemic in the parishes of Great and Little Coggeshall, in the Braintree Rural Sanitary District, Dr. Airy was deputed in November last to investigate the circumstance up to November 3, 1882. Fifteen cases of the disease among paupers alone had been reported to the health officer by the district medical officer, all occurring since the previous 25th of October. As is unfortunately nearly always the case, about the origin of the epidemic there is, the report says, a good deal of obscurity; the earliest case that could be traced dated back to September 10, and from that time to the third week in October, when the disease became epidemic, several children, whose cases Dr. Airy relates, died from different causes, which, though registered under other names, he cannot help suspecting should have been returned as diphtheria. It having been ascertained that all the households invaded were those which sent children to the church schools, Dr. Abbott urged that these should be closed, and his recommendation was carried out, with the effect of at once checking the outbreak. But, having been closed seventeen days, they were re-opened on November 20 without any consultation with the sanitary authority, the result being that several fresh cases, two of them fatal, were shortly afterwards reported, and the infection then spread to families of children attending the chapel school. On December 12 the Medical Officer of Health procured the temporary closure of both schools. Dr. Airy remarks that there was no indication that the diphtheria was spread by milk, nor was there any reason to think that it was caused by air escaping from defective drains. It appeared to him that the infection had probably been brought into the school by children from the early invaded families, and that its subsequent spread was sufficiently accounted for by personal contact of children in and out of school. The type of the disease on the whole was not very severe, but was in many instances, the report adds, well marked, the attack being followed by nasal voice and

difficulty of swallowing; the loss of guttural articulation being made very apparent when the children were asked to pronounce the name of their native village. The previous history of diphtheria in Coggeshall shows that from 1870 to 1875 there was only one death registered from it in that sub-district; in the autumn of 1875 there was a severe outbreak, which was investigated and reported upon by Dr. Thorne. In 1876 sixteen deaths were registered from this cause, and five in 1877; then followed another long interval from 1878 to the third quarter of 1882 with only a single death registered. Is this sudden recurrence, Dr. Airy asks, due to the presence of some new or unusual conditions, or is it due merely to the chance of one infectious case getting into a crowded school and there disseminating the poison? It cannot be doubted, he says, that diphtheria does often exhibit a certain dependence upon local conditions; that is to say, it is found in the long run to be much more prevalent in one region than in another. For example, in the county of Essex, during the last twelve years the annual diphtheria death-rates of Chelmsford and Rochford have averaged 3.0 and 0.8 per 10,000 respectively. In the present instance it may be, Dr. Airy goes on to observe, that the general poverty and insufficiency of food among the lower classes in the district contributed, by reducing the bodily strength of the children, to render them more susceptible of infection. In all probability there was a concurrence of predisposing causes, such as the nature of the locality, the wetness of the autumn season of 1882, and the impaired health of the children, which had together prepared a soil suitable for the reception and development of diphtheria.

### ABSTRACTS AND EXTRACTS.

#### PROFESSOR PICK'S TREATMENT OF ECZEMA.

IN a communication to the *New York Medical Record* for July 26, Dr. Robert Morison furnishes an account of the great success which he had observed to attend Prof. Pick's treatment of eczema at Prague, contrasting it with what he had seen at Vienna. There, tar, as employed by Hebra, is still in the ascendant, and, notwithstanding its great antiparasitic and antiseptic powers, proves a most tedious, troublesome, and dirty application. Prof. Kaposi's attempt to supersede it by naphthol has not succeeded; for, in spite of prolonged trials in other diseases, its employment is now almost confined to scabies, and even for this it has to be most cautiously used, owing to its great liability to produce severe inflammatory action.

"For three months," says Dr. Morison, "I have been studying closely and critically, through the kindness of Prof. Pick, his gelatine treatment of this disease, and I have been greatly struck with the simplicity of its application, its cleanliness, and its most excellent results. Instead of the troublesome use of powders and of salves, which in Vienna must be applied at least twice a day, the patient in Prague has immediately wrapped over his diseased parts linen bandages smeared with unguentum saponis containing 5 or 10 per cent. of salicylic acid. This is applied at any stage, and is left *in situ* for a week. After the bandages are applied, they are covered with what is known as *tricot*, and which is manufactured in various sizes, especially for Prof. Pick, in England. A patient so dressed is able to go about his work with no inconvenience to himself and no injury to his clothes. After a week the bandage is removed, and the disease examined. If it is found necessary, from the still remaining inflammation and induration, a fresh bandage is applied, and left on for a week. Then the gelatine is applied in the following manner. A portion of a mass made by dissolving fifty grammes of the purest gelatine in 100 grammes of distilled water, and which has been allowed to cool previously, is melted by putting it into a cup, and placing the cup in hot water. To this is added the required strength of salicylic acid—usually 5 per cent. When sufficiently cool, this mixture is painted upon the diseased parts with a painter's brush made of bristles. The layer of gelatine is made about as thick as a sheet of writing-paper, and, after it has dried, is gently covered with a minimum quantity of glycerine spread with the hand. The use of glycerine is found to be necessary to render the gelatine



pliable, and to prevent its contracting, which it otherwise would do with considerable force—sufficient to irritate the skin. It is also worthy of notice that it is not practicable to mix the glycerine with the gelatine before it is applied, as it prevents its hardening sufficiently, and renders it sticky. It takes a very small quantity only of glycerine, after the gelatine has dried on the skin, to render this soft and pliable. A few trials teach the nurse the amount required. This use of glycerine obviates the only bad effect which the gelatine can possibly have. With such a bandage a patient seldom feels the slightest itching. The diseased parts are seen through the transparent layer, thus rendering the progress of the disease visible without the removal of the application; and, what is much more agreeable to the patient, an ordinary bath removes all traces of it. So easy is this method of treatment that the patient can in most cases make his own applications, and there is no fear of a too strong action being produced by the drug. In many cases of chronic eczema the application is made immediately, without the previous use of the linen bandages; and in acute eczema, especially in crusta lactea, this rule may often be followed. There is no reason why the medicated gelatine may not be immediately applied at any stage of eczema; but experience has shown that salicylic acid first applied in the moist stage of acute eczema in the form of salicylated soap ointment, for a period long enough to reduce the inflammation, renders the use of medicated gelatine more prompt in its results."

After relating some of the cases which he had watched, Dr. Morrison observes:—"The most satisfactory results, both to patient and physician, are obtained in chronic cases which appear so frequently at dispensaries. For instance, in cases due to varicose veins, I have seen the greatest benefit follow. Instead of taking the patient into the hospital, he is simply bandaged and sent off, to return in a week's time. Nothing could be simpler, and it is satisfactory in the extreme.

"In trying this treatment there are a few points in the method of application which it is necessary to insist upon. The salicylic acid must be thoroughly well mixed with the soap ointment while warm, and this must be spread, when at about the consistence of butter, evenly upon short linen bandages, which should not be more than one inch and a half in width—and even much narrower when applied to fingers and toes. The ointment should not be in a thicker layer than the back of an ordinary table-knife, and should be spread fresh every time it is used. It is well not to mix too large a quantity, as it hardens and is more difficult of application. The gelatine should be prepared by dissolving in distilled water and heating in a porcelain crucible. After stirring thoroughly, it is allowed to cool, and forms a cake, which takes the form of the crucible. This cake can be kept for any length of time in paper, and the necessary quantity broken off every time it is to be used. The salicylic acid must be kept separate from it, and only added to the gelatine when it is melted. The mixture should not be painted on the skin unevenly or in a thick layer. When properly applied, it can be torn from the skin in quite large pieces, and it comes off without pain to the patient or irritation to the disease. It sounds like the tearing of tissue paper; and when thus torn off, looks as if the patient was having his epidermis removed by force. Any holes or rents in the covering may be repaired from time to time by a fresh application.

"After having seen as many as a hundred cases of eczema treated by this method, I consider that it fully equals the old tar treatment in the results obtained, and that it far surpasses it in the simplicity of its application and in its cleanliness—a quality which immediately recommends it to the patient. With its introduction Prof. Pick has made a great advance in the treatment of this most common of all skin diseases, and it is worthy of a most thorough trial at the hands of others."

**BEQUESTS TO HOSPITALS.**—The late Mr. Henry Couchman, of Blackheath, who died on June 30 last, has bequeathed £200 each to the Royal Kent Dispensary, Greenwich-road; the London Hospital, Whitechapel-road; the Seamen's Hospital, Greenwich; the Hospital for Consumption, Fulham-road; the Cancer Hospital, Fulham-road; and the Charing-cross Hospital, Agar-street.

## REVIEWS.

*Body and Will.* By HENRY MAUDSLEY, M.D. Kegan Paul and Co. 1883. Demy 8vo, pp. 333.

IN this book we find but a small proportion of definite and positive teaching, the main bulk of the work being occupied with a controversy, which is conducted with considerable vehemence, against opinions with which the author disagrees. These opinions appear to be of two sets—those of a nearly obsolete school of theologians, whose style of controversy Dr. Maudsley emulates at the same time that he often goes far out of his way to abuse their tenets; and those which are held by, or rather which Dr. Maudsley attributes to, metaphysicians, by which he appears to mean those who pursue the study of mind by the introspective method—who look, as it were, into their own consciousness, and describe what they find there. It is quite impossible, however, to discover who it is that Dr. Maudsley is attacking with so much vigour of language and with an iteration and reiteration to which we are sorely tempted to apply Falstaff's epithet. The doctrines that he combats are, many of them, as Dr. Maudsley states them, so foolish as to justify anything that can be said of them; some are so manifestly absurd that it is difficult to believe that they were ever entertained, in the form that Dr. Maudsley states them, by any reasonable being; and it is the more important, therefore, that they should be carefully authenticated. But as to their authorship Dr. Maudsley never gives us a hint. They are "favourite axioms," they are in "common vogue," they are conclusions that we "are to see"—that we are "required to draw"; they are held by "some evolutionists," by "some philosophers," by "the introspectionist," by "our introspective psychologist of the study"; some person or persons unknown are "wont" to uphold them, they "rush to the conclusions," they are in "hot haste" to reach them; but who these anonymous individuals are, we are left in ignorance. Although by far the greater part of the book is taken up with a refutation of, or more correctly a violent attack upon, these doctrines, not one single authority is adduced to show that any one of them has ever been held by any human being. This style of controversy is not altogether new; it is not difficult; and we fail to perceive that it is of the slightest interest or value. If these opinions are really such favourites—are in such common vogue—as Dr. Maudsley asserts, why does he not adduce at any rate one authority to support his assertion? The soundest doctrine may easily be made to look preposterous when stated by its adversary, and the only fair way of presenting it is to give it as stated by one of its upholders. This Dr. Maudsley does not do, and, in the absence of such a citation, the method of his book resembles nothing so much as that of the recreation that is so much in favour on racecourses and other places of popular assemblage—we refer to that in which a figure more or less accurately resembling the human form (it is commonly intended to portray a member of the softer sex and of the negro race) is set up for the purpose of being knocked down again by the missiles of the hilarious populace. Dr. Maudsley's verbal missiles are hurled with great dexterity; they always hit the object of his marksmanship, and his success affords him no little satisfaction. But whether his target is a living antagonist, or a lay figure set up by himself, he alone can enlighten us, and this he studiously refrains from doing. By all kinds of ingenious periphrases he contrives to make us understand that the doctrines he is combating are held by some one, but who it is that holds them he never lets us know. He objurgates the doctrines and their holders with all the vigour and with all the reiteration of the excommunication service. Ernulphus himself had not a stronger or more copious vocabulary; but when it is all exhausted nobody seems one penny the worse. Occasionally we get a hint that among the shadowy antagonists is to be reckoned Mr. Herbert Spencer. On more than one occasion Dr. Maudsley, without mentioning any name, gives a paraphrase of some doctrine of Mr. Spencer's, and dismisses it with a sneer. Yet Dr. Maudsley shows so clearly upon almost every page of his book the influence of Mr. Spencer's writings, that the third time he denies Mr. Spencer's leadership we listen for the cockerow.



To judge Dr. Maudsley's book by the common standard, and to compare his views with those of the leaders in mental science, would be fruitless; for there is not sufficient common ground between them to allow of a thorough comparison. The position that Dr. Maudsley takes up is so peculiar as to make us feel that no comparison is admissible or even possible, save with himself. We will therefore take the different portions of his book, and see how far they harmonise with one another. As has been said, a very large portion of the work is taken up by arguments against the introspective study of mind. We do not propose to enter into this controversy. A method which counts among its adherents such names as Plato, Locke, Berkeley, Kant, Leibnitz, Pascal, Descartes, and Mill is not likely to be discredited by being called nonsense, absurdity, and self-foolery, even by Dr. Maudsley, and may be safely left to take care of itself. All we can do here is to notice how far Dr. Maudsley's practice harmonises with his principles. A method for which Dr. Maudsley has so much scorn, and to which he applies so many hard names, whose "fundamental incompetence" he sets himself to prove, in which he has "no proper faith," and which it is one of the main objects of his book to discredit, is, one would think, the last that he would himself employ. It is with some surprise, therefore, that we find chapters with such headings as "What Consciousness tells us concerning Will," "Concerning the Authority of Consciousness," and "The Positive Assurance of Consciousness." When we examine the chapters thus entitled, we find that this method, which Dr. Maudsley repudiates with so many bitter words, is nevertheless employed by him in investigating questions of such profound importance and difficulty as these, and that he is quite content with the results that it yields him. It is difficult to see in what way the dicta of consciousness, the assurance of consciousness, and the authority of consciousness can be investigated save by turning our attention to our own consciousness, and noting what passes therein; and it is so far satisfactory to find that even Dr. Maudsley is driven to adopt this method in dealing with these problems. But the question naturally presents itself, Which is the most trustworthy guide in these most obscure and almost inaccessible regions—he who pursues patiently and devotedly with the labour of a lifetime a method of whose value he is thoroughly convinced, or he who adopts for a special occasion a method which he affects to ridicule and despise? So startling is the discrepancy between Dr. Maudsley's opinions and his practice in this matter, that we turn again to the chapters in question to see if the method really is the same, and we are bound to say that there are indications of a certain difference. It appears that Dr. Maudsley "considers the matter closely"; he is "fixed in resolve to question freely and think sincerely," he "examines closely and without bias," he "looks calmly and frankly at the facts with a sincere desire to see them as they are"; and it would be no wonder, therefore, if, with such novel intentions, he arrived at new conclusions. The fact is, however, that Dr. Maudsley's doctrine concerning free will is by no means a new one, but is slightly, if at all, different from that which is now widely accepted, and whose most authoritative exponent is Professor Bain; and this confirms our suspicions that the same pure intentions with which Dr. Maudsley sets out may have been previously entertained by some one else. Dr. Maudsley's adoption in practice of the introspective method of studying mind, after he has rejected it in principle, is but one of the many contradictions in his book. When some person (unknown) says that "the highest evolution of free will is freely to lose its freedom," Dr. Maudsley warns us that "many persons do not thoroughly consider whether they distinctly know their own meaning, but deceive themselves in imagining that they have any distinct meaning at all; and that of the two issues—first, that opposites are identical; secondly, that meaningless propositions are made—the latter is the more probable." This seems to us a very sound opinion, and it rises very prominently to the mind, and is repeated with emphatic approval, when we find, on page 38, reference made by Dr. Maudsley to "the secret presence, in the background, of a substance which is not substance, being unsubstantial—immaterial substance. Here again," says Dr. Maudsley, apparently oblivious of the opinion quoted above, "we strike upon one of those expressions that seem to common apprehension to be a contradiction in terms, and a mode of robbing language of its definite

meaning, but which the mystical sense of high philosophy perceives to be a conjunction of opposites that bespeaks a deeper unity." Such a passage comes rather oddly from one who says of "those who are adepts in the schools of high mental philosophy" that he is "unable to use their language with a satisfactory sense of having clear and definite ideas beneath its terms." Being unfortunately deficient in the mystical sense of high philosophy, and having to get on with no better sense than that which is called, erroneously, as it appears, common, we are bound to say that, viewed by that humble but useful faculty, Dr. Maudsley's expression appears sheer nonsense. It is probable that the passage in question was meant to foreshadow and prepare the way for a very extraordinary doctrine that appears in another part of the book. This "most pregnant theory," as it is modestly called by its author, is no less than a new theory of Mind, by which it is supposed to consist in vibrations of an "all-pervading mentiferous ether." Such a doctrine is not exactly what we expect from an author who starts by declaring that he has "no choice but to leave the barren heights of speculation for the plains on which men live and move and have their being," and may be summarily dismissed in the terms that he himself applies to the operations of cerebral matter—"no motion of its molecules, gyratory, undulatory, rotatory, nor any combination of such motions that we can imagine, could have any conceivable analogy with a sensation."

The further we penetrate into this remarkable book, the greater grows our wonder that an author of such unquestionable ability as Dr. Maudsley should have involved himself in such a mass of gratuitous and uncalled-for contradictions and inconsistencies. One of his chief grievances against his adversaries "the metaphysicians" is the obscurity of their language, yet he himself uses such expressions as the following:—Reason is "something which comes not miraculously into a man, but grows in him by consummate development from the not supreme," which sounds like a line out of the popular opera, *Patience*; Will is "a mighty tide of becoming that is broken into so many ripples of individual and conscious energies"; the social tendency is "the all-mightiness of the whole dominating the particular desires and wills of the past"; the form of an organism is "the result of the combining properties of the simple and complex compounds that constitute the structure in their relations with the environment." The following profound counsel is given by Dr. Maudsley to mankind in general:—"Let him cease, then, to labour to know himself in himself, and let him strive diligently to know himself—as he can only, properly speaking, know himself—in nature." "To say there is an absolute, and call it the unknowable," says Dr. Maudsley, "is it a whit more philosophical than it would be for a blue-bottle fly to call its extra-relational the unbuzzable?" This is terribly severe, and if anyone has ever said such a thing he must no doubt feel himself annihilated; but there is yet balm in Gilead even for him. On page 203, Dr. Maudsley himself says that "the understanding reveals a phenomenal world standing forth from a background of the unperceivable," and again, on page 231, he speaks of "sterile endeavours to think the unthinkable." If it is right and proper to speak of the unthinkable and unperceivable, it cannot be so excessively unphilosophical to speak of the unknowable. Dr. Maudsley is very angry with his adversaries for erecting mental abstractions into substantial entities, and dealing with them as if they possessed independent activities of their own, and yet we find that he himself originates such views as these: the life-principle of the organism is "a principle of continuity; in the living present the incorporate past is active"; and again, each element of the physiological organism "contains in itself, in some secret and incomprehensible way, an abstract essence of the whole." How Dr. Maudsley can find it necessary to strain out the gnat of a special Will-entity after swallowing such a metaphysical camel as this, passes our comprehension. Not all the mysticism of all the schoolmen, from John Erigena to St. Thomas Aquinas, contains a more mystic passage; and the following is not much more definite:—"The exercise of function being the giving out or unloosing of those combined internal and external conditions, the unfolding from within, by a self-disintegration, of the coincident conditions within and without that combined in the first instance to form the new variation, these



naturally promote further material embodiments—that is to say, further increase of structure.” Fine words, truly, but what do they mean? What is the giving out of a condition? What is a self-disintegration, and how does it differ from other disintegrations? and how can a self-disintegration promote a material embodiment? After reading this passage it is refreshing to hear from Dr. Maudsley that we are “not to delude” ourselves “with words that mark no definite ideas, but to have a substantial meaning in the terms” we use; and we can at length find ourselves in agreement with him when he says, “The question is, what are the exact facts that such general words signify; and here it must be confessed that an aching void of meaning often appears.”

The passages that we have quoted above are not unfairly selected; they are a trustworthy sample of the kind of writing in which the book abounds, and we fail to discover a single new doctrine or original view of any importance to compensate for the harshness of its style, or to warrant the arrogance of its tone. The style is, as may be judged from the foregoing extracts, singularly uncouth, and the text is interspersed with obsolete and ecclesiastical forms of expression, which appear out of place in a work claiming to be scientific, and still more so in one that is largely occupied with attacking the religious forms which are commonly expressed in such language. Things don't happen to Dr. Maudsley, they come to pass, or befall. We are drenched with howbeit, wherefore, haply, subtle, albeit, cometh, giveth, nowise, behold, and similar expressions, until we can imagine ourselves reading the Epistle to the Romans, and find the text quite as obscure. The tone of the book is, however, its most distinctive feature. It is dogmatic and self-assertive to an extraordinary degree. A doctrine with which Dr. Maudsley disagrees is not merely erroneous—it is “nonsense,” “absurd,” “a signal absurdity,” “a manifest absurdity,” a “huge absurdity”; it is “self-foolery,” it is “vain and empty,” “an empty pretence,” an example of “extraordinarily perverse and futile ingenuity,” and so on. Dr. Maudsley repeatedly goes far out of his way to attack current religious opinions; but, in spite of this, his methods of controversy are essentially ecclesiastical. He meets assertion by assertion, and dogma by dogma. He betrays an intense *odium antitheologicum*, but, upon acquaintance, it appears to be only the *odium theologicum* turned inside out. He has all the qualities (and they are neither few nor small) that go to make up a first-rate polemical theologian; but his style is unsuited for the ways of science. It is not by assuming a papal infallibility, and treating every adverse opinion with majestic scorn, that a position can be either won or maintained nowadays. If Dr. Maudsley wishes to be recognised as the ultimate authority in mental science, he must climb down into the arena and hold his own against all comers, and he will then find that a little reasoning is worth an enormous deal of assertion.

## GENERAL CORRESPONDENCE.

### METAPHYSICS IN PATHOLOGY.

[To the Editor of the Medical Times and Gazette.]

SIR,—As I gave an exact reference to Niemeyer's remarks on this subject, there seems to me to be no excuse for Mr. Millican's questions. He can, if he likes, read the passage, and judge for himself how far the theories he has lately advanced were anticipated by that great German physician.

I am, &c.,

Birmingham, October 6.

ROBERT SAUNDY.

### THE LATE MR. BOAST, OF WYMONDHAM, NORFOLK.

[To the Editor of the Medical Times and Gazette.]

SIR,—This is an appeal on behalf of the widow and four young children of the above-mentioned surgeon. After practising many years at Wymondham, he died last year, leaving his family almost totally unprovided for. He had a lingering illness, the expenses of which, including the employment of *locum tenens*, etc., swallowed up a considerable portion of what small means he had. It is to be regretted that such appeals should have to be made; every one, however, is an argument in favour of some kind of provident

scheme. I may mention that the above-named case is recommended by Mr. William Cadge and Mr. Burton, of Norwich, to whom reference may be made. Subscriptions may be paid either to myself, or to Mr. J. D. Allman, care of Messrs. Hewlett and Son, wholesale chemists and druggists, 40, 41, 42, Charlotte-street, Great Eastern-street, E.C. The following subscriptions have been promised:—

£ s. d.		£ s. d.	
Mr. Wm. Cadge . .	5 0 0	Dr. W. Hughes . .	1 1 0
Mr. Haynes Robinson	3 0 0	Mr. E. Jackson . .	2 2 0
Mr. S. H. Burton . .	2 0 0	Mr. J. D. Allman . .	0 10 6

Further subscriptions will be acknowledged in the journals. Mr. Burton, F.R.C.S. Eng., of Norwich, will act as secretary and treasurer, to whom, therefore, subscriptions may also be sent.

I am, &c.,

GEORGE JACKSON.

1, St. George's-terrace, Plymouth, October 6.

### “GOD'S GIFTS TO MAN.”

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you grant me space to inform the independent young lady's grandfather, who, in your issue of to-day, so pitilessly handles my Address on Therapeutics at the London School of Medicine for Women, that I quite agree with him as to the value of the drugs he enumerates; and to add yet one more to the list, saying to the very venerable practitioner (who may well be excused for having entirely forgotten most that I said), “There's rosemary—that's for remembrance.” It were useless, I think, now, to send him to Ophelia for pansies.

I am, &c.,

October 6.

H. D.

P.S.—I would remind your correspondent that the sources of assafoetida are not wholly Divine, as shown by its synonym, *stercus diaboli*.

## OBITUARY.

### GEORGE HENRY EVANS, M.D. CANTAB., M.R.C.P.

GEORGE HENRY EVANS, who was regarded at one time as one of the most promising amongst our younger consulting physicians, but whose career was prematurely cut short some few years ago by the onset of a hopeless malady, died at Isleworth on the 30th ult. He was born at Norwich in August, 1835, and was the son of a well-known barrister in that city, who was for many years Chancellor of the diocese. He received his early education as a foundationer at Eton, proceeded as a scholar to King's College, Cambridge, obtained a junior optime in the Mathematical Tripos in 1858, and in due course was elected Fellow of his college. Soon after taking his degree he entered for a time upon the study of medicine at Addenbrooke's Hospital, but circumstances shortly induced him to abandon physic for a military career. He obtained a commission in the Bedfordshire Militia, and when that regiment was incorporated into the line he accompanied it to St. Helena. He remained with it until it was converted into a West India Regiment, when he resigned his commission and came back to England. Immediately after his return he went into residence at King's College, and again took up the study of medicine at Addenbrooke's, and subsequently at St. Thomas's Hospital. He graduated M.D. in 1871, and in the same year took the membership of the Royal College of Physicians. After passing some time as clinical assistant at the Victoria-park Hospital, he was, on the completion of the new St. Thomas's Hospital on the Albert-embankment, appointed first Resident Assistant-Physician. This post he held for a year, resigning it on being elected Assistant-Physician to the Middlesex Hospital. His career in London, though full of promise, was all too short for achieving that success which his friends had every reason to prognosticate for him. In 1877 the symptoms began to develop themselves of that incurable disease which ultimately proved fatal, and though rest for a time seemed to be beneficial, yet it was evident to all but himself that the night had fallen upon him. He passed quietly away on September 30, at the early age of forty-eight.

Dr. Evans will be remembered, by all who knew him personally, as an example of the thoroughly earnest and enthusiastic worker, uninfluenced by any deliberate purpose of self-



advancement. Whatever he took in hand he carried out with determination and energy, and while resident at St. Thomas's Hospital he won the confidence and esteem of both his superiors and subordinates. He supervised the work of the House-Physician and clinical clerks, without interfering with their self-respect or responsibility, and will be held in the memory of many who profited by his accurate clinical knowledge and teaching. In observation and registration of facts he was untiring; and, owing to his great common sense, and what may be called clinical insight, his opinion on the nature and treatment of the cases under his care was always listened to with respect by the Visiting Physicians. At the Middlesex Hospital, during the short period of his service there, he carried out the promise of his earlier career, and was valued alike by his colleagues and pupils. Forced, as he was, by his illness to resign the posts he held in London, the hospitals to which he was attached suffered a real loss in being deprived of a man with such a combination of good sense, accurate knowledge, and wide general culture as is not often to be met with in the medical profession.

**FRANK THEED TWINING, M.B., M.A. CANTAB.,  
M.R.C.S.**

DR. TWINING, whose death, on September 14, from phthisis, at the age of thirty-five, was recorded in a recent number of this journal, received his school education at Christ's Hospital. Thence he proceeded in due course to Cambridge, where he took his B.A. degree, with honours in Natural Science. Whilst at Cambridge, like many medical undergraduates, he devoted most of his time to the scientific subjects more or less closely connected with medicine, putting in a sufficient number of appearances in the wards of Addenbrooke's Hospital to get signed up for a year's hospital medical practice. After holding the valuable appointments of Resident Clinical Assistant at Victoria-park Chest Hospital, and House-Physician to Dr. Bristowe at St. Thomas's, he completed his medical education at Vienna. Having no taste for private practice, and perhaps not being fitted to play successfully the part of a general practitioner, he spent the remainder of his life as Assistant Medical Officer at the Eastern District Fever Hospital at Homerton. A good observer, well up in his profession, shrewd and cautious in forming an opinion, and deeply interested in his work, he would certainly, had he been spared, have added something to our scanty knowledge of the pathology of infectious fevers.

**MEDICAL NEWS.**

**CAMBRIDGE SANITARY SCIENCE CERTIFICATE.**—The following is a list of those who satisfied the examiners in both parts of the examination:—

Bartley, A. G., M.D.	Hill, R. B., M.D.
Cowen, P., M.R.C.S.	MacRury, C. M., L.R.C.E.
Day, W. W., M.D.	Pearse, T. F., L.R.C.P.
East, F. W. A., M.B.	Penny, E., M.B.
Finlay, D. W., M.D.	Read, M., M.B.
Glasier, C., M.B.	Richardson, J., M.B.
Gripper, W., M.B.	Saunders, G. J. S., M.B.
Herring, J. F., L.R.C.P.E.	Sweeting, R. D. R., M.R.C.S.

The examiners were Dr. A. W. Barclay, Professor F. de Chaumont, and Dr. Alfred Carpenter.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 4:—

Beresford, Ralph, Prince of Wales'-road, Norwich.  
Bullock, Thomas Warren, Spring Grove, Isleworth.  
Hutchinson, Harry, Oakley-square, Camden Town, N.W.  
Gostling, John Harry, Halesworth, Suffolk.  
Scott, Arthur William, Coalbournbrook, Stourbridge.  
Smith, Albert, Paris-villas, Wakehurst-road, Wandsworth End, S.W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bradbrook, William, London Hospital.  
Llewelyn, Ithel Penderel, King's College Hospital.  
Skill, Geoffrey, St. Thomas's Hospital.

**APPOINTMENTS.**

EYRE, J. J., L.K.Q.C.P.I., L.M., and L.R.C.S. Medical Officer to the Forest Hill Dispensary.

REDMOND, JOSEPH M., Physician to the Mater Misericordiae Hospital—Joint-Lecturer on the Practice of Medicine and Pathology in the Ledwich School of Medicine and Surgery.

**DEATHS.**

ADAM, JOHN MITCHELL, M.B., C.M., at Ardentigh, Port Bannatyne, Bute, on September 28, aged 31.

EVANS, GEORGE HENRY, M.D., at Isleworth, on September 30, aged 48.

EVERITT, HERBERT, M.R.C.S., at Tarkástád, South Africa, on August 24.

JERVIS, THOMAS, M.D., J.P. for Middlesex and Westminster, at 32, Connaught-square, on October 3, aged 73.

SCHOFIELD, ROBERT HAROLD AINSWORTH, M.A., F.R.C.S., B.Sc., etc., of the China Inland Mission, at Tai-Yuen-Fu, North China, on August 1.

**VACANCIES.**

**BRIGHTON AND HOVE DISPENSARY.**—Resident House-Surgeon. Salary £140 per annum, with furnished apartments, coals, gas, and attendance. Candidates must be Members of one of the Royal Colleges of Surgeons of Great Britain or Ireland, and Licentiates of the Royal College of Physicians of London, or Licentiates of the Society of Apothecaries of London, and registered under the Medical Act. Diplomas, certificate of registration, and testimonials (under seal), to be addressed to the Chairman of the Committee of Management, Brighton and Hove Dispensary, Queen's-road, Brighton, on or before November 5. The election will take place on December 4.

**CHELTEMHAM GENERAL HOSPITAL.**—Assistant House-Surgeon. Salary £80 per annum, with board and lodging in the Hospital. Candidates must possess at least one registered qualification and be unmarried. Applications, stating age, with testimonials, to be sent to the Hon. Secretary, on or before October 24.

**CHICHESTER INFIRMARY.**—House-Surgeon and Secretary. Salary £100 per annum, with board, lodging, and washing. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Chairman of the Committee, on or before October 22. The election will take place on November 8.

**CHICHESTER INFIRMARY.**—Assistant House-Surgeon. Salary £20 per annum, with board, lodging, and washing. Applications to be sent to the Chairman of the Committee, on or before October 22.

**GENERAL HOSPITAL, NOTTINGHAM.**—Assistant House-Surgeon. Salary £80 per annum, with board and residence. Candidates must be doubly qualified. Applications, with testimonials, to be addressed to the Secretary, on or before October 17.

**KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY, N.W.**—Resident Medical Officer. Salary £120 per annum, with rooms, coals, gas, and attendance. Candidates must be unmarried. Applications, with qualifications and testimonials as to character and professional ability, to be sent to the Hon. Secretary, 13, Kilburn-park-road, Maida Vale, W., on or before October 10.

**UNION AND PAROCHIAL MEDICAL SERVICE.**

\*.\* The area of each district is stated in acres. The population is computed according to the census of 1881.

**RESIGNATIONS.**

**Nantwich Union.**—The Crewe District is vacant: area 14,709; population 32,034; salary £60 per annum.

**Tiverton Union.**—Mr. A. S. Connellan has resigned the Bradninch District: area 4830; population 1825; salary £35 per annum.

**APPOINTMENTS.**

**Alcester Union.**—George R. Green, L.R.C.P. Edin., M.R.C.S. Eng., to the Inkberrow District.

**Bedford Union.**—Thomas R. C. Edwards, M.R.C.S. Eng., L.R.C.P. Edin., to the Harrold District.

**Corwen Union.**—David T. Richard, M.B. and C.M., to the Western District.

**Coventry Union.**—John A. London, M.B., M.C. Edin., to the First District.

**Crediton Union.**—Charles T. Champneys, L.R.C.S. Edin., to the Cheriton Fitzpaine District.

**Leeds Union.**—Arthur Hawkyard, L.R.C.P., L.R.C.S., and L.M. Edin., to be Assistant Medical Officer at the Workhouse Infirmary.

**Manchester Township.**—Charles William Jones, M.B. and M.C. Edin., to be Assistant Medical Officer at Crumpsall Workhouse, and Resident Assistant Medical Officer at the Receiving and Casual Wards.

**Mansfield Union.**—Charles Guthrie Stein, M.R.C.S. Eng., M.B. and C.M. Edin., to the Third District.

**Pontardawe Union.**—Griffith Griffiths, M.R.C.S. Lond. and L.R.C.P. Edin., to the Workhouse.

**DR. HAUGHEY**, of Crewe, died on Friday last from injuries sustained by being thrown out of his carriage on Monday last.

**DEATH FROM HYDROPHOBIA.**—A domestic servant in Chelsea, who was bitten by a cat in May last, has died from hydrophobia.

**CAMBRIDGE UNIVERSITY.**—The Special Board for Biology and Geology have published the following list of lectures for this term:—Physiology: Professor Foster, elementary; Mr. Lea (Caius), Chemical Physiology, advanced; Mr. Langley, Physiology, advanced; Mr. Hill (Downing), second M.B. class. Zoology and Comparative Anatomy, and Animal Morphology: Professor Newton will lecture on Evolution in the Animal Kingdom; Mr. Sedgwick, Practical Morphology, elementary and advanced; Dr. Hans Gadon, Morphology of



Ichthyopsida, advanced. Botany: Dr. Vines (Christ's College), General Elementary Course, and Advanced Physiology.

**THE CONTAGIOUS DISEASES ACTS.**—Mr. Stansfeld, M.P., in a letter to M. Emile de Laveleye, states that it is the intention of himself and of those who think with him on this subject, by persuasion, by encouragement, and by pressure, to endeavour to secure the introduction by Her Majesty's Government on the first day of next session of a Bill intended to be in accordance with the resolution of the House of Commons of April 20 last, and the discussion of such Bill before the setting-in of the great rush of party political questions. They intended to hold the House to the spirit of that resolution, and to oppose with all their power Clause 5 of the Government Bill.

**THE DRAINAGE OF THE LOWER THAMES VALLEY.**—The sites proposed for the drainage works of the Lower Thames Valley Main Sewerage Board have now been made known. The one preferred by the engineers consists of fifty-five acres of market-garden land on the Surrey side of the Thames, between Kew railway-bridge and Mortlake. Here it is intended to erect works for the chemical treatment of the sewage of the whole district, which has a population of nearly 150,000. Among the alternative sites is some low-lying grass land south of the Ham Fields, near Teddington Lock. The works are estimated to cost about £300,000.

**ARMY MEDICAL DEPARTMENT.**—The following changes have been gazetted:—Deputy Surgeon-General Alexander Dudgeon Gulland, M.D., has been granted retired pay, with the honorary rank of Surgeon-General; Brigade-Surgeon Joseph John Thompson to be Deputy Surgeon-General, *vice* H. T. Reade, V.C., retired on temporary half-pay; Surgeon-Major William Gerard Don, M.D., to be Brigade-Surgeon, *vice* J. J. Thompson; Surgeon-Major Edmond Hoile, M.D., has been granted retired pay, with the honorary rank of Brigade-Surgeon; Surgeon Kingston Dodd Lloyd Kirkwood has resigned his commission; Surgeon William Milward, M.B., resigns his commission.

**SOLDIERS OF UNSOUND MIND.**—From the report of Mr. Parker Wilson, medical officer of the Brixton Military Prison, it would appear that, in the anxiety to augment the number of Her Majesty's land forces, recruiting-sergeants even neglect to draw the line at mental infirmity. Some of the offenders undergoing punishment at Brixton seem, at all events, to be men who could hardly be held responsible for the breaches of discipline of which they have been convicted. The class of weak-minded patients in such prisons is not at all uncommon, and Mr. Wilson says that he can call to mind at least half a dozen cases which have really verged on imbecility, and were undoubtedly in that condition on enlistment. At the present time there is in hospital a patient who, previous to enlistment, was the inmate of a lunatic asylum.

**THE NEW WATER SCHEMES.**—The *Municipal Review* is informed that the two leading features of the proposed water scheme for London, to be considered by the Water and General Purposes Committee of the Metropolitan Board of Works, are uniformity of rating throughout the whole of the metropolis, and an unintermittent supply to houses of all classes. It is proposed that the Committee shall make a new estimate of the value of the property of the water companies, and it is believed that the consideration of this part of the subject will occupy the Committee for at least two months. A consultation with the Corporation Committee is also spoken of, for the purpose of agreeing on the *modus operandi* between the two bodies. But it is pointed out that their schemes are diametrically opposed in one of the essential points—the supply of water by measurement.

**THE TUBERCLE BACILLUS.**—As the result of an elaborate review of what has been done, and his own investigations, Dr. Harold Ernst (*Boston Medical Journal*, August 2 and 9) arrives at the following conclusions:—“1. A staff-shaped micro-organism exists in all forms of the tuberculous process, and its presence has been demonstrated in them. 2. It is more abundant in the rapid than in the slow form of the process. 3. Its specific nature as the cause of tuberculosis is claimed by Koch on the ground of his observations. 4. Its specific character has not been successfully refuted by trustworthy observations. 5. Its value as diagnostic evidence of tuberculosis is very great,

although its absence cannot be considered as excluding the existence of that process. 6. The only observer who has thus far attempted the repetition of Koch's cultivation-experiments is Prof. Feltz, of Nancy, who has announced the complete failure of his work. The manipulation is such, however, that more than one failure must occur to upset the testimony of complete and repeated successes.”

**THE HIND FUND.**—The following subscriptions have been received and paid to the account of the “Hind Fund”:

Dr. Jones ... ..	£21 0	Dr. Rogers ... ..	£2 2
F. E. Webb, Esq. ...	21 0	A. J. Pepper, Esq. ...	2 2
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F. Simms, Esq. ...	2 2	J. Baines, Esq., Birmingham	1 0
A. Benthall, Esq. ...	2 2		

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), Manchester-square; Professor Tweedy, F.R.C.S., 24, Harley-street, Hon. Treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, Hon. Secretaries; or to Messrs. Coutts, Strand.

## APPOINTMENTS FOR THE WEEK.

### October 13. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

### 15. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

### 16. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

**PATHOLOGICAL SOCIETY, 8½ p.m.** Dr. Carrington—Lympho-Sarcoma of the Gastro-Intestinal Mucous Membrane. Dr. Hadden—Tumour of the Bladder. Mr. George Lawson—Congenital Growth in the Orbit. Mr. Kesteven—Tumour of the Brain. Mr. Hutchinson, jun.—Gastritis in a Bear. Mr. Poland—Sebaceous Cyst from Finger. Dr. Howard Tooth—Congenital Malformation of Heart. Dr. Frederick Taylor—Gumma of Dura Mater and Syringo-Myelus. Mr. Sutton—Rickets in the Monkey (three cases).

### 17. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

**BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m.** Dr. R. Douglas Powell, “On Cases of Aortic Aneurysm.”

### 18. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

**ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m.** Dr. Herringham, “On Aphasia.”

### 19. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

**SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7.30 p.m.** Inaugural Address by the President, Dr. Dudfield, “On the Need of Unity in Metropolitan Sanitary Administration.”



## VITAL STATISTICS OF LONDON.

Week ending Saturday, October 6, 1883.

## BIRTHS.

Births of Boys, 1221; Girls, 1166; Total, 2387.  
Corrected weekly average in the 10 years 1873-82, 2605.7.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	637	615	1252
Weekly average of the ten years 1873-82, } corrected to increased population ...	759.8	700.1	1459.9
Deaths of people aged 80 and upwards ...	...	...	41

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	1	1	2	3	...	2	...	...	11
North ...	905947	2	2	12	5	2	...	...	...	9
Central ...	282233	...	...	6	...	2	...	...	...	4
East ...	692738	...	6	25	2	5	1	3	...	11
South ...	1265927	1	2	19	10	2	...	7	...	13
Total ...	3816483	3	11	63	19	14	1	21	...	49

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.631 in.
Mean temperature ...	...	...	...	...	...	47.7°
Highest point of thermometer ...	...	...	...	...	...	58.3°
Lowest point of thermometer ...	...	...	...	...	...	40.3°
Mean dew-point temperature ...	...	...	...	...	...	42.7°
General direction of wind ...	...	...	...	...	...	N.N.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.66 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the  
Week ending Saturday, Oct. 6, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Oct. 6.	Deaths Registered during the week ending Oct. 6.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2387	1252	16.5	58.3	40.3	47.7	8.72	0.66	1.68
Brighton ...	111262	43	30	14.1	59.0	38.0	46.9	8.28	0.47	1.19
Portsmouth ...	131478	79	39	15.5	...	...	...	...	...	...
Norwich ...	89612	63	28	16.3	...	...	...	...	...	...
Plymouth ...	74977	55	31	21.6	58.0	40.0	48.9	9.39	0.69	1.75
Bristol ...	212779	117	57	14.0	57.0	36.0	47.5	8.61	0.63	1.60
Wolverhampton ...	77557	51	35	23.6	52.9	33.7	43.6	6.45	0.59	1.50
Birmingham ...	414346	277	163	20.5	...	...	...	...	...	...
Leicester ...	129483	84	37	14.9	57.0	39.0	47.4	8.55	0.61	1.55
Nottingham ...	199349	135	74	19.4	55.0	38.1	46.2	7.89	1.63	4.14
Derby ...	85574	40	26	15.9	...	...	...	...	...	...
Birkenhead ...	88700	71	27	15.9	...	...	...	...	...	...
Liverpool ...	566753	346	255	23.5	53.9	42.0	48.6	9.23	0.98	2.49
Bolton ...	107862	70	47	22.7	55.1	35.8	45.7	7.61	0.88	2.24
Manchester ...	339252	242	172	26.5	...	...	...	...	...	...
Salford ...	190465	125	74	20.3	...	...	...	...	...	...
Oldham ...	119071	74	35	15.3	...	...	...	...	...	...
Blackburn ...	108460	96	40	19.2	...	...	...	...	...	...
Preston ...	98564	56	40	21.2	58.0	39.0	46.9	8.28	0.60	1.52
Huddersfield ...	84701	55	20	12.3	...	...	...	...	...	...
Halifax ...	75591	46	20	13.8	...	...	...	...	...	...
Bradford ...	204807	111	77	19.6	53.6	39.5	46.3	7.95	0.30	0.76
Leeds ...	321611	197	122	19.8	55.0	39.0	47.4	8.55	0.95	2.41
Sheffield ...	295497	222	107	18.9	53.5	39.0	46.5	8.06	0.85	2.16
Hull ...	176296	112	77	22.8	58.0	38.0	46.7	8.17	1.02	2.59
Sunderland ...	121117	90	53	22.8	...	...	...	...	...	...
Newcastle ...	149464	98	82	28.6	...	...	...	...	...	...
Cardiff ...	90033	75	34	19.7	...	...	...	...	...	...
For 28 towns ...	5620975	5422	3054	18.5	59.0	33.7	46.9	8.28	0.78	1.98
Edinburgh ...	235946	120	67	14.8	...	...	...	...	...	...
Glasgow ...	515589	338	181	18.3	56.5	32.5	44.6	8.00	0.00	0.00
Dublin ...	349.85	184	157	23.4	58.1	35.8	46.9	8.28	0.44	1.12

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.63 in.; the lowest reading was 29.06 in. at the beginning of the week, and the highest 30.21 in. at the end of the week.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*Seats for Public Places.*—These seats might bear the appropriate inscription, "Never injure a friend."

*Bournemouth as a Winter Resort.*—The number of large houses taken in this town for the coming winter is unprecedented.

*The West London Hospital.*—In recognition of the long-continued kindness shown by the members of the Ancient Order of Foresters, one of the wards in the new wing has been named the "Foresters' Ward."

*Cholera: Egypt.*—The disease has virtually ceased in Egypt, a few cases only being reported from Upper Egypt. The ordinary mortality in Alexandria, however, is unusually heavy, and the returns are regarded with some suspicion.

*Resignation of a Medical Officer of Health.*—Dr. Rygate, the Medical Officer of Health for St. George's-in-the-East, has tendered his resignation to the Vestry, which the Vestry has accepted. Dr. Rygate has held the office for seventeen years. The Vestry expressed its regret at losing his valuable services.

*Resignation.*—Dr. Iliff, one of the representatives of the St. Saviour's (Borough) Union at the Asylums Board, has resigned his seat, being unable to devote sufficient time to the duties of the office. The resignation has been accepted, and a letter forwarded to Dr. Iliff, thanking him for his past services.

*The Preston Town Council and Temperance.*—The Council has accepted the offers of several persons to purchase on lease for 999 years different plots of land in the borough, on the usual covenants and building conditions, but "including restrictions against the sale of wines or intoxicating liquors."

*The Leeds Medical School and the Yorkshire College.*—Dr. Clifford Allbutt, on the occasion of the opening of the winter session of the Leeds Medical School, last week, intimated that the fusion of this school of medicine with the Yorkshire College was now very near, and only some minor details remained to be settled.

*University of Zurich.*—There are now thirty-one women students in this University, of whom only seven are German. Twenty of these ladies are studying medicine. Zurich has conferred the doctor's degree on thirty women during the ten years the University has been open to both sexes alike. Twenty-three of these were Doctors of Medicine, and seven had the Ph.D. degree.

*Hospital Accommodation for Infectious Patients, Manchester.*—A memorial has been presented to the Manchester Town Council from the Manchester and Salford Sanitary Association, urging the Corporation to acquire the right of using the Ardwick and Ancoats Hospital as a receiving-house for cases of infectious disease. This proposal is supported by a memorial from the Manchester Board of Guardians.

*Anti-Vaccinators' Goods Distrained.*—Stubborn disobedience to the law provokes extreme measures to enforce compliance. The plea of "conscientious scruples" is futile and worthless as a justification for resistance to legal obligations. At Wellingborough six anti-vaccinators have been fined, one £10, and the remaining five £5 each and costs, for opposing the police in the execution of their duties in the removal of goods under distraint for not complying with the Vaccination Acts.

*Mortality of Children: Climatic Effects.*—The Medical Officer of the City of York, in his report for the month of August, observes that "the marked feature in the death-returns of York was the rapidity with which the death-rate for young children was increased with the slightest changes in the temperature, etc., showing clearly the existence of a feeble population, ready to die whenever the climatic conditions became less favourable to health. The high mortality was confined chiefly to the crowded parts of the city."

*Posthumous Prescribing.*—A French medical journal has been amusing itself by prescribing for the ailments of illustrious people who have been long dead, but who, according to this authority, ought not to have died as early as they did. It seems that Molière could have been saved by a few grains of caffeine; Racine's neuroses would have yielded to bromide of potassium; while any modern doctor could have cured Napoleon of his biliousness, and altered the course of history by making the Great Emperor live to a green old age.

*Inquests: Viewing the Body.*—The recent remarks by Mr. Payne, the Coroner, as to viewing the body, have attracted, it appears, the attention of one jurymen at least. The foreman of the jury, at an inquest held last week at Rochester, raised the question as to whether it was necessary for the jury to view the body of the deceased. The Coroner, on citing the law upon the question, stated that "viewing the body" was part of the evidence, without which an inquest was liable to be quashed. Thereupon the jury viewed the body, and the inquiry proceeded in the usual manner. The superficial and *pro forma* character of this long-established custom renders it of little value as evidence. Albeit, it remains a requirement of the law, and the legality of an inquest should not be jeopardised by non-compliance therewith.



**Recreation Grounds, Paris.**—A large part of the expenses of maintaining the public squares and promenades in the city is met by the duties paid to the Municipality by proprietors of establishments situated in them, such as restaurants, etc. An official return shows that the total receipts of this kind for the whole of the public lands in Paris are 1,343,831 fr. per annum. The cost of maintenance, on the other hand, is set down at 1,600,000 fr., including the services of the police officials.

**Anti-Vivisection, France.**—A meeting of the League against vivisection (the first of its kind) has been held in Paris, and was attended, it seems, by many distinguished members of society. The tableaux exhibited (aided by the electric light), showing the different forms of alleged torture which victims of vivisection have undergone, were received with demonstrations of great enthusiasm. It was argued with much vehemence that "the animals are tortured, but without result to science, and there is no progress attained by vivisection."

**The Contagious Diseases Act.**—By recent returns there seems to have been a grievous increase in cases under treatment in the Royal Naval Hospital, Stonehouse, and the Royal Military Hospital, Stoke, since the suspension of the Act in May last. The type of the disease is stated to be more serious, and the medical officers of the hospitals are apprehensive that even more severe types will soon become more prevalent in the community, and be spread rapidly. It may be hoped that early on the re-assembling of Parliament the decision of May last will be reversed by the restoration of the compulsory clause.

**A Female Guardian on Compulsory Vaccination.**—The vaccination officer addressed a letter to the Lambeth Board of Guardians for authority to enforce the Vaccination Act against four persons who would not comply with the law. During a discussion on this application, Miss Lord pointed out that several boards of guardians had decided not to prosecute. She urged the guardians to throw the responsibility of prosecuting on the Local Government Board, and moved that the letter of the vaccination officer lie on the table—a motion which was lost by a majority of two, thirteen guardians being present.

**First Aid.**—A pianoforte tuner at Chester was charged with attempting to poison himself with laudanum. On the case being heard by the magistrate, Police-Serjeant Warburton (who had undergone a course of study with the St. John Ambulance Corps) informed the Bench that, the prisoner having taken laudanum, he immediately gave him an emetic of warm water and mustard, as well as a stronger emetic which he had compounded at a neighbouring chemist's, and walked him up and down the room as rapidly as possible. When the prisoner recovered, he said to witness, "I should have passed off nicely if you had let me alone."

**Pawning Infected Clothing.**—The Chairman of the Birmingham Health Committee, referring to the small-pox epidemic, said a very serious mode of propagating the disease had been discovered by the vigilance of the health authorities. A man with small-pox in his house took infected wearing apparel to a pawn-shop, where it was taken in and placed among other bundles of clothes. Fortunately the case was discovered, and the infected bundle and all placed near it have been secured and disinfected. Meanwhile, the man is to be prosecuted. The attention of pawnbrokers has been officially called to this case with the view to every precaution being taken by them.

**No Medical Officer of Health.**—The Sanitary Committee of the Garrison at Woolwich have called the attention of the District Board of Works to the existence of diphtheria in the garrison, and requested the Board to appoint a medical officer of health. It appears that the present arrangement of the Board was that the twenty-one local medical men should furnish the Board with information of all cases of infectious disease, for which they paid them a small fee. It was stated that this plan worked much better than having one medical officer. A reply was ordered to be given to the Garrison Committee, with a request that the military surgeons should furnish the Board with the names and addresses of all persons suffering from diphtheria or other infectious disease. It may be asked whether this arrangement does not, in fact, contravene the Act of Parliament, as to its requiring the appointment of a medical officer of health.

**A Protest: Mais v. Dr. Forbes.**—A meeting of ratepayers of the parish of Shoreditch has been held at the Town Hall, Old-street, to protest against the payment of a gratuity of £815 to discharge the legal expenses of their Medical Officer of Health, Dr. Forbes. The Board of Guardians and the Local Government Board have had the question under consideration, and the decision of the Guardians to allow the expenses has evoked a very hostile feeling in the parish. These expenses were incurred by the Medical Officer of Health in the trial "Mais v. Forbes"—the matron of the infirmary against the doctor—for libel. The plaintiff and defendant were condemned to pay their own costs; and the doctor claimed of the Board the costs he had to pay out of pocket. The Guardians had requested the central authority to defray the amount, inasmuch as the report which was the subject of the alleged libel was written at the order of the superior Board. The central authority did not, however, admit their responsibility, and the expenses have been thrown on the ratepayers. Ultimately, after much heated discussion, a resolution was adopted, condemning the action of the Guardians.

**Dwellings of the Poor: France.**—We were scarcely prepared to hear that there are 140,000 houses in France without that indispensable requisite—a window. Yet such seems to be vouched upon official returns. M. Marten Nadaud, the Deputy for Creuse, made a statement to this effect at a recent meeting of the Trades Confraternity in Paris, and he moreover added, "In these houses, which have no other flooring than the soil, which are without chimneys and without light, whole families live with the domestic animals for companions, and with the pig as a guest." That such a housing of the poorer classes is allowed to exist, is scarcely compatible with the vaunted exceptionally high state of civilisation of the nation. It is a survival of cave life.

**Decline of Russian Medical Students in Foreign Universities.**—A correspondent writes that formerly 90 per cent. of Russian students in continental universities confined their studies to medicine, but during recent years that faculty attracts only a small number. Philosophy, chemistry, and mathematics are now the principal studies prosecuted. The chief cause, he believes, of the decline in number of medical students is the severity of the examination by the Russian faculty of medical men holding foreign diplomas, before licences to practise are granted. Another reason is, perhaps, that the greater number of these students before entering foreign universities have simply finished the ordinary courses of the Russian gymnasias or polytechnic schools. Strange to say, the English universities appear to have no attractions for the Russian student.

**Alcoholism: Hackney Infirmary.**—The Board of Guardians have been somewhat exercised on the increased consumption of spirits in the infirmary. In the course of a discussion on the subject, the medical officer stated that the spirits entered in the return were consumed by the sick poor, and not by the officers. Thereupon a guardian called attention to the answer given to the committee on the same question by the doctor a short time ago, which was to the effect that "there were different views amongst medical men. He (the doctor) had been brought up in a certain school, and he considered the amount of spirits that he was prescribing was necessary, and that was all." In reply to the remarks of the guardian, Dr. Miller observed that "if the doctor diminished his prescriptions of spirits simply upon protest he should say that he was a very dishonest doctor. If he shortened the use of spirits in order to curry favour with the guardians he was unfit for his position. He might order what he considered necessary for individual patients, regardless of how it might appear in the aggregate." The subject was then dropped.

COMMUNICATIONS have been received from—

Dr. CRICHTON BROWNE, London; Dr. R. SAUNDY, Birmingham; Mr. R. CATERALL, London; Sir E. LECHMERE, London; Dr. R. H. SEMPLE, London; Dr. G. E. HERMAN, London; Dr. H. SUTHERLAND, London; Dr. J. W. BARRETT, Melbourne; Dr. R. J. ANDERSON, Belfast; Mr. GEORGE JACKSON, Plymouth; Mr. R. J. GODLEE, London; Mr. STONE, Wimbledon; Mr. W. T. GRANT, Birmingham; THE SECRETARY OF THE UNIVERSITY OF CAMBRIDGE; Dr. MORISON, London; Mr. GEORGE RENDLE, St. Thomas's Hospital; THE SECRETARY OF THE ADMIRALTY DEPARTMENT, Whitehall; Mr. J. CHATTO, London; THE SECRETARY OF THE PATHOLOGICAL SOCIETY, London; THE SECRETARY OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH, London; THE SECRETARY OF THE BRITISH MEDICAL ASSOCIATION, London; Mr. BARTLEET, Birmingham; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE ST. MARY'S HOSPITAL MEDICAL SCHOOL, London.

BOOKS, ETC., RECEIVED—

Cholera, by John Chapman, M.D.—Congress at Glasgow: Inaugural Address, by Professor G. M. Humphry, M.D., F.R.S.—History of Rome, by Victor Duruy—Manual of Surgical Operations, by Joseph Bell, F.R.C.S.—Meeting of the National Association for the Promotion of Social Science—A Guide to the Microscopical Examination of Drinking-Water, by J. D. Macdonald, M.D., R.N., F.R.S.—L'Épilepsie, l'Hystérie, et l'Idiotie, par Bourneville—The Life and Work of St. Paul, by Canon F. W. Farrar, D.D.—Annual Report of the Wonford House Hospital for the Insane, near Exeter—Wiesen, by A. T. Tucker Wise, M.D., L.R.C.P., etc.—The Physiological Factor in Diagnosis, by J. Milner Fothergill, M.D.—Plant Analysis, by C. Dragendorff, Ph.D.—Howard Association Report, October, 1883—On Malpositions of the Kidney, by David Newman, M.D., C.M.—Dr. Corpus's Class—Physical Diagnosis, by Dr. E. T. Bruen—The Organs of Speech, by Georg Hermann von Meyer—Annual Report of the Sanitary Condition of Nottingham for 1882—Zur Geschichte der Lehre von der Drehung der Hand, von Prof. Dr. Jacob Heiberg—On the Immediate Suture of Divided Nerves, by Henry E. Clark—Murray's Time-Tables—The Boy's Own Annual—The Girl's Own Annual—Surgical Applied Anatomy, by Frederick Treves, F.R.C.S.—Elements of Surgical Pathology, by A. J. Pepper, M.S., M.B.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Cassell's Saturday Journal—Analyst—Weekblad—American Journal of Neurology and Psychiatry—Maryland Medical Journal—Popular Science News—Polyclinic—L'Impartialité Médicale—Students' Journal and Hospital Gazette—Ophthalmic Review—Indian Medical Gazette—Night and Day—Practitioner—An Ephemeris of Materia Medica, etc.—National Anti-Compulsory Vaccination Reporter—New York Medical Record—North Carolina Medical Journal—Maryland Medical Journal.



# REPORT ON THE CHOLERA IN EGYPT.

By Dr. KOCH,  
Chief of the German Scientific Commission.

As the cholera epidemic was already rapidly subsiding when the Commission arrived in Egypt, it was hardly to be anticipated that that country would supply the material necessary to complete the investigation. And, moreover, as the period when an epidemic is on the wane is hardly the best suited for inquiry into its etiology, the original plan was changed, and it was decided to make only the preliminary researches in Egypt, with the view, in case the epidemic should extend to Syria, of rectifying them in places which had been but recently attacked by the cholera, and which would therefore be likely to afford a favourable basis for the inquiry.

The first portion of this plan has hitherto been carried out with very satisfactory results, for, during its stay in Alexandria, the Commission has found opportunity to collect the material necessary for preliminary inquiry. This success I owe chiefly to the courtesy of the physicians to the Greek Hospital, who, by giving us rooms for our work, and placing at our disposal all cholera patients who were admitted into the hospital, and the bodies of all who died there from the disease, materially furthered the objects of the expedition.

At the very beginning the Commission obtained the use of two well-lighted rooms adjoining each other on the ground floor, one of which was devoted to the microscopical researches, and the other to cultivation experiments. The animals for experiment were placed in both rooms. But as their number increased, and it seemed too dangerous to make researches in the infectious matter in the same rooms in which we had to spend almost the whole day, the animals were removed into a completely isolated chamber in the old hospital, and there the experiments on the infection were carried out.

The material so far used for the research has been obtained from twelve cholera patients, and from ten cadavers dead of the disease. Of the patients, nine were under observation in the Greek Hospital, two in the German, and one in the Arabian. In all cases the symptoms corresponded in every particular with those of true Asiatic cholera. Portions of the blood, of the vomit, and of the dejections of these patients were examined. As it very soon became evident that the blood was free from micro-organisms, and the vomited matters contained comparatively few, while in the dejections they were found in considerable numbers, the last-named were chiefly used in the inoculation experiments on animals.

Although the quantity of post-mortem examinations was not large, we were happily favoured in obtaining from them extremely valuable material for the preliminary inquiry. The most varied nationalities were represented amongst the cadavers (three Nubians, two Austro-Germans, four Greeks, one Turk), at the most varied times of life (two children, two cases over sixty years, the rest between twenty and thirty-five years), and cases in which the disease had lasted very different periods. But the most important point is that the autopsy was made in most cases immediately after death, or at the outside only a few hours later. The changes which putrefaction produces in the organs, and with especial rapidity in the bowel, and which render microscopical examination of these parts most extremely difficult, could under these circumstances be excluded with certainty. I would lay especial stress upon this fact, because in other countries it would be scarcely possible to obtain material so well adapted for microscopical examination. The pathological appearances, like the symptoms during life, left no doubt that we had to deal with true cholera, and not, as was maintained in general quarters, with a so-called choleriform or choleroid disease.

No organised infective material could be demonstrated in the blood, or in those organs which, in the case of other infective diseases, are usually the seat of micro-parasites, viz., the lungs, spleen, kidneys, and liver. In some cases bacteria were found in the lungs, but these, as we saw from

their peculiarities of form and position, had nothing to do with the peculiar disease-process, but had found their way into the lungs by the inspiration of ejecta from the stomach.

The contents of the bowel and the dejections of the cholera patients contained extraordinary quantities of micro-organisms belonging to the most different varieties, none of which appeared in preponderating proportion. There was also an absence of other indications of a relationship to the disease-process.

The bowel itself, on the contrary, gave most important results. In all the cases except one, which had died of a consecutive disease several weeks after recovery from cholera, bacteria of a definite form were found in the coats of the bowel. These bacteria are rod-shaped, and belong therefore to the bacilli; in size and shape they most nearly resemble the bacilli found in glanders. In those cases in which the bowel showed the slightest changes to the naked eye, the bacilli were found to have penetrated into the follicular glands of the mucous membrane, and had there given rise to very considerable irritation, as shown by the increase in the lumen of the gland, and the collection of many nucleated round cells in its interior. In many cases the bacilli had also penetrated behind the epithelium of the glands, and had proliferated between it and the basement membrane of the gland. They had, moreover, collected in considerable quantities on the surface of the villi, and had often penetrated into their substance. In the severe cases, which had been characterised by hæmorrhagic infiltration of the intestinal mucous membrane, the bacilli were found in large numbers, and were not limited only to the interior of the follicular glands, but had passed into the surrounding tissues, into the deeper layers of the mucous membrane, and here and there even into the muscular coat of the bowel. The villi were also in such cases extensively invaded by the bacilli. The chief seat of these changes is the lower portion of the small intestine. Had not this investigation been made on quite recent cadavers, the result would have been of little or no value, for putrefaction is able to produce in the intestine exactly similar bacterial growths. A year ago I had found these same bacilli, with a similar distribution, in a choleraic bowel which I received direct from India; but I had not been able to attach any value to it on account of this very reason, for it was always possible that they might be confounded with post-mortem putrefactive changes. Now, however, that any error arising from putrefactive phenomena can be positively excluded, this earlier discovery, made in four different Indian cholera cases, acquires extraordinary value. Nor is it an unimportant fact that the agreement in the appearances of the bowel in Indian and Egyptian cholera furnishes a further proof of the identity of the two diseases.

The number of cadavers examined is certainly small; but, as the bacilli were met with in all recent cases of cholera, while they were absent in the single case examined after the cessation of the cholera-process, as well as in several other cases dead from other forms of disease, and examined with special regard to this point, there can be no doubt that they stand in some sort of relation to the cholera-process. It cannot, however, as yet be concluded that they are the cause of the cholera. The relationship may be quite the reverse; it being quite as possible that the cholera-process produces such changes in the intestinal mucous membrane as to admit the penetration into its tissues of a definite bacillus variety of the many parasitic bacteria which are constantly met with in the bowels. Which of these two hypotheses is the correct one—whether the infective process or the bacterial invasion is the primary event—can only be decided by attempting to isolate the bacteria obtained from the diseased tissues, to cultivate them, and then to reproduce the disease by inoculation experiments on animals. For this purpose it is absolutely necessary to have at one's disposal animals which are susceptible to the infective material in question. Hitherto, however, in spite of every endeavour, we have not succeeded, in an indisputable manner, in conveying cholera to animals.

Numerous experiments have been made on rabbits, porpoises, dogs, cats, monkeys, pigs, rats, etc., but always without success. The only results of any value in this respect are those of Thiersch, who fed a number of mice on the contents of an intestine from a cholera patient, and observed that they were seized with diarrhoea and died. This experiment has been confirmed by trustworthy investigators, like



Burdon Sanderson, but it has also been impugned by others. Since it was of the highest importance to discover an animal susceptible of cholera, it was necessary to repeat these experiments. It was very improbable that the requisite number of mice could be speedily obtained in Alexandria, and fifty mice had already been brought from Berlin for this purpose, and the infection experiments were at once commenced upon them. But, besides these, monkeys, which are the only animals susceptible of certain human infective diseases, such as small-pox and relapsing fever, were also used for experiment. Lastly, the attempt was also made to infect some dogs and chickens. But, in spite of every endeavour, these experiments have hitherto been entirely without result. The most varied attempts were made, and the animals fed with the vomit, with the cholera dejections, and with the contents of the bowel obtained post-mortem—given in some cases quite fresh, in others after it had stood for a time in a cold or a warm room, in others again dried,—but in no case did choleraic symptoms appear; on the contrary, the animals continued perfectly well. Besides this, the bacilli found in the contents of the bowels and in the intestinal walls were cultivated, and animals were fed, and in some cases inoculated, with the product. In some cases septic manifestations followed inoculation, but in none was cholera reproduced.

That the *materies morbi* in an active form is very often contained in the dejections of cholera patients is shown by numerous facts, especially by the frequent infection of washerwomen who have had to wash the soiled linen. A case of this kind occurred in the Greek Hospital during the present epidemic—a washerwoman, who was exclusively employed on the linen of cholera patients, having sickened of the disease.

It may therefore be regarded as certain, that of the many substances used in the experiments, some at least must have contained infective material; and the fact that no result was obtained may be attributed either to the animals used being completely insusceptible of cholera, or to the proper mode of infection having yet to be discovered. The experiments shall be continued, and modified in both directions, but there is little prospect of any result being obtained with the material at present at our disposal.

For it is not very probable that the reason of the failure of the infection experiments is to be found in those circumstances only. There is still a third explanation, for the correctness of which there is much to be said. It is well known that, in any given place attacked by cholera, the disease subsides long before all the inhabitants have been affected by it; and although the morbid material may be concluded to be distributed widely over the whole neighbourhood, yet fewer and fewer people fall ill, and the epidemic dies out while many individuals still remain capable of infection. This phenomenon is only to be accounted for on the hypothesis that towards the end of the epidemic the infective material declines in activity, or at least becomes uncertain in its action. If, then, when the epidemic is declining, even human beings cease to be susceptible to the infection, it is hardly to be expected that the contrary should be the case with the animals experimented on, concerning whose susceptibility to cholera we as yet know nothing. In our researches only such subjects were available as were to be collected towards the end of the epidemic, and their incapability of conveying the infection was to be expected with more or less certainty. It still remains possible that, under favourable circumstances—i.e., at the commencement of an epidemic,—one might succeed in infecting animals, and by that means one would at once discover whether the bacilli which I have shown to exist in the intestinal mucous membrane are the true cause of cholera.

Though, therefore, the results so far obtained by the Commission are still far from completely solving the problem, and though they have little practical value in the struggle against cholera, yet, considering the unfavourable circumstances, and the short duration of the investigation, they may be considered as very satisfactory. They completely answer the original aim of the inquiry, and, indeed, exceed it, inasmuch as the constant discovery of characteristic micro-organisms satisfies the first condition which must be fulfilled in the investigation of an infectious disease, and thus secure a definite goal for further research.

From the above statement it may be gathered that in Alexandria the Commission will not be able to advance

further towards the solution of the problem than it has hitherto done.

[Dr. Koch then states his reasons for not advising that the Commission should follow the epidemic in Upper Egypt, where the conditions would be highly unfavourable to the investigation, and expresses the wish of himself and his colleagues that they should be allowed to continue their researches in India, and especially in Bombay, where a sudden cessation of cholera is not likely. He then continues:—]

I have now to communicate the result of certain undertakings which the Commission has found opportunity to carry out concurrently with their investigations on cholera. Egypt is very rich in parasitic and infectious disorders, and it was therefore not difficult to obtain appropriate subjects for research, partly with the view of securing comparisons controlling the results obtained in connexion with cholera, and partly with the view of arriving at further conclusions in certain important general questions regarding infective diseases.

Thus I have so far dissected two cases of dysentery. In the one, which ran an acute course, there were found in the intestinal mucous membrane certain peculiar parasites which do not belong to the group of bacteria, and were hitherto unknown.

Next, at the Arabian Hospital, I dissected an Arab who had died of intestinal splenic fever (*Darmmiltzbrand*). The disease is probably traceable to infection from sheep, which are imported in great numbers into Egypt from Syria, and die here largely of splenic fever.

Further, I had the opportunity, at the Greek Hospital, of observing six cases of bilious typhus—a disease with a considerable resemblance to yellow fever, and of great interest from having been frequently confounded with that affection. Three of the patients died. They have been dissected by me, and shall be thoroughly investigated.

Besides that, numerous investigations have been made as to micro-organisms in the air and drinking-water of Alexandria; and, if I have time, I intend to make some observations on Egyptian ophthalmia.

## ADDRESS

DELIVERED BEFORE THE

## OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM,

On Thursday, October 11, 1883.

By JONATHAN HUTCHINSON, F.R.S.,

Consulting Surgeon to the London and the Royal London Ophthalmic Hospitals; President of the Society.

GENTLEMEN,—We begin to-day the fourth session of the Ophthalmological Society of Great Britain. In the first place I must thank you very heartily for the honour you have done me in electing me your second President. Appreciating this honour most highly, I yet accept it with much misgiving, more especially when I remember who has been my predecessor.

In Mr. Bowman you have enjoyed the services of a President of unequalled fitness and ability—of one, indeed, who had already conferred inestimable benefits on ophthalmic science. His acceptance of the office of President at once secured the success of our infant Society, and in his recent resignation of it we have sustained a very heavy loss—one which, I am well assured, it will be quite out of my power, in any degree, to make you forget. The chief satisfaction which I have, in venturing to accept your invitation to succeed him, is the knowledge that he still takes the warmest interest in our affairs, and that I shall always have the advantage of his advice and help.

It will be my duty to mention to you directly, facts which will prove that, although Mr. Bowman has resigned the nominal presidency, he still occupies in relation to us an almost paternal position. Long may he live to do so!

We meet this evening, as you will have observed, in rooms which have been made much more commodious since our last session, and in connexion with this subject I have to



give you some important items of information. The first is, that the Medical Society of London, whose tenants we are, on entering upon their greatly improved premises, felt themselves obliged very materially to increase our rent. There was nothing in the least unreasonable in this; indeed, our landlords have throughout acted towards us in a liberal spirit. The proposed increase was, however, in respect to our finances, a very heavy one, and as the Council was desirous to collect a library, and to form a museum of instruments and appliances—both objects demanding outlay,—we found ourselves for a time in a position of great difficulty. It is almost certain that the Society could not have afforded to continue in these rooms and develop itself in the proposed directions had it not been helped by an act of scientific beneficence not often surpassed.

Having acquainted himself with the facts, and noting our position, our ex-President made an offer to the Council to himself undertake the cost of purchase of all fittings necessary for the museum and library, and further, to make a gift to the Society annually, for twenty years, of the sum of £50, in order to defray the expenses of rent of rooms. Need I say that the Council on your behalf thankfully accepted Mr. Bowman's munificent offer, and I have now the pleasure of informing you that we are, in all probability, rent-free for twenty years, and shall be able to devote the whole of our income from subscriptions to the publication of our annual volume. I am sure that you will receive this most liberal gift of your past President as one in the highest degree worthy not only of praise in the present, but of imitation in the future. The pecuniary advantages which it confers upon us are solid, extensive, and durable; but, warmly as we appreciate them, I believe I may say that those who have been most closely associated with the early years of our Society derive yet greater pleasure from the fact, that one so competent to judge, should in so emphatic a manner have crowned their efforts with his approbation.

I have next to allude to a remarkable coincidence. Mr. Bowman's offer was made only about a month ago, and quite unexpectedly to us all, whereas for at least three months before this, and wholly unknown to him, the Council had had under consideration a proposal to recognise his pre-eminent position in respect to ophthalmology in Britain, and the invaluable services which he had already rendered to our Society. It was from Dr. Gowers that the suggestion had first come that we should found a lectureship to be known as the Bowman Lecture, but it was no sooner mentioned than it was received with unanimous approbation.

I am anxious, for reasons that will be self-evident, to make it clear that the Council's endeavour in this slight manner to do honour to Mr. Bowman, and his liberal endowment of the Society, had no connexion one with the other, although the two projects ripened about the same time. Dr. Gowers' proposal has been several times discussed in our Council meetings, and should it meet with your approbation, as I feel sure that it will, the lecture in question will be founded forthwith. Without wishing unduly to bind the executive in future years, the present proposal is that a Bowman Lecturer shall be appointed each year, and invited to prepare for us a critical summary of the best extant information upon some special subject to be selected by the Council, or, if not selected, approved by it.

This lecture will probably be an annual one, and will be delivered at a meeting specially appointed for that purpose. We hope in it not only to permanently associate with our Society the name of a great man, but also to contribute each year something real towards that "advancement of knowledge for the good of man's estate," which has been Mr. Bowman's lifelong aim.

With this statement I end, gentlemen, the announcements which it has been my most pleasing duty to make to you, but I purpose before sitting down to trespass upon your attention with a few further remarks on our general position and the possible scope of our future work.

I think that we may now fairly congratulate ourselves that the organisation of our Society, if we regard it simply as providing means for the furtherance of research in ophthalmology, is well-nigh perfect. We shall have regular meetings in commodious and central rooms, at which any subject which is brought forward will be certain to receive the attentive criticism of an audience, than which none

exists better qualified for the task. We invite in the freest possible manner the production of all new facts, opinions, and suggestions, whether relating to extended series of observations or isolated cases. All that concerns the Eye, whether in health or disease, concerns us, and we shall be thankful alike for the single case and the elaborate paper. Nor is there, I am happy to say, any spirit of exclusiveness as regards membership with us. We shall willingly accept the help of all who take an interest in our pursuits. Those who had the largest share in the formation of this Society were careful that it should have a wide basis, and, thanks to their foresight, it has now the good fortune to include amongst its members many physicians, surgeons, and others engaged in general practice who are not, and never have been, in any sense, specialists.

To say nothing of the original contributions which we have had from some of these, their help in our debates and their services on our committees have been, and will be in the future, simply invaluable. It is true that we have not yet a library of reference, nor a museum. But the first of these desiderata will, I doubt not, soon be supplied, and the other will be put in course of formation to such extent as may suitably come within our lines of work. We shall probably never attempt the formation of a pathological collection, since we have no convenience for its preparation or its display, and there exists, besides, at other institutions, ample provision in this direction.

We do, however, contemplate the formation of a collection of instruments and appliances, and to this object Mr. Bowman's endowment will, as I have said, be in part devoted. Probably also we shall make gradually a collection of drawings and other forms of graphic illustration. These can be easily classified and stored for reference in the drawers of our library. Should it occur to any of our more wealthy friends to emulate Mr. Bowman's noble example, I cannot, for my own part, think of any object to which a second endowment could be more usefully devoted than to the formation of such a collection.

Morbid conditions of the eye, whether external or revealed by the ophthalmoscope, lend themselves with peculiar facility to the artist's skill. If we had the funds I would suggest that, under the auspices of a committee, we should copy, collect, and classify, from all available sources, private and public, published or otherwise, all such illustrations of eye disease as are passably good as to execution, and duly authenticated and described. With but few exceptions I would leave aside all in which the history of the individual case is omitted. If this scheme were completed we should find, if I am not mistaken, that we were in possession of a sort of clinical museum which would prove of very great use alike to students and to all engaged in original research. I certainly count this object as chief among the very few desiderata for which adequate provision has not yet been made.

Hitherto I have been speaking of our arrangements and organisation as a Society for the improvement of knowledge in our special branch. To those who, with me, believe that it would not be possible, in any material degree, to alter these arrangements for the better, it is, I may repeat, a source of great satisfaction to know that they have received the emphatic *imprimatur* of our first President, than whom there is no man living so well qualified to judge.

The improvement of ophthalmic knowledge is unquestionably our first, and by far our principal duty. I cannot but think, however, that it is possible that in the future such societies as ours may find another kind of work open to them, which is only second in importance.

I allude to the systematic and strenuous endeavour to diffuse rapidly amongst the profession at large, for the prompt benefit of our patients universally, all items of new knowledge which may have been obtained.

There are many directions in which thoughtful help might be given towards this end. We may, in the first place, endeavour to induce as many as possible to join us, and attend our demonstrations and receive our volumes. We shall not, however, in this way reach any excepting London residents.

It is perhaps possible that something might be done to make some of our meetings, and the reports of them which appear in the journals, more valuable to the bulk of the profession, by becoming less definitely special than they now are. We might, for instance, bring forward for discussion,



occasionally, the commoner forms of eye disease—such as are scarcely likely to be often made the themes of original communications. Not only would this help others, but it is very desirable for our own good that we should occasionally make recapitulation in public of our knowledge of common things, and thus ascertain how far our opinions have advanced towards unanimity.

There is another branch of the same topic on which I incline, if you will permit me, to enter into a little more detail, since it offers possibly a sphere for much useful work in the future on the part of societies like ours. It is one, indeed, to which perhaps this Society in particular is more specially called than any other. I refer to the promotion of what may be named *every-day therapeutics*. It is obviously quite possible that the knowledge of diseases of the eye might be cultivated by a few up to a point of very high excellence, and with great finish of detail, and yet remain a possession of the specialist, and benefit but little the family practitioner, and the public his patients. In some degree this state of things is unavoidable, and in some departments of our practice we cannot hope to ever escape it. Still, however, it will be admitted by all to be a matter of regret. So far as we can do it, it is our duty to make such knowledge popular—to diffuse it over an area the widest that we can obtain. A practical knowledge of astigmatism is not to be expected from a general practitioner; possibly not even from all who are engaged in the treatment of eye diseases as a specialty. The attempt to use the ophthalmoscope for purposes of diagnosis, although quite possible to a large section of the younger part of the profession, enjoying constant opportunities and fresh from hospital training, would probably, to by far the greater part, prove to be a source of error rather than a help.

Skill in the diagnosis and, as a necessary consequence, in the treatment of a not inconsiderable group of rare diseases of the eye, must always, despite any development of education which it is reasonable to hope for, and any artificial aid which can possibly be given, remain the possession of the specialist only. But it is otherwise in respect to a majority. Almost all the examples of the commoner forms of eye disease come under the care, in the first instance and often throughout, of those who are not specialists, and have perhaps never even had any training in an ophthalmic hospital. Circumstances over which no one has any control render this inevitable. Whether or not the surgeons concerned desire it, they must perforce take charge of "eye cases" as well as of others. It is in reference to practitioners so placed that I would suggest that our Society has possibly a duty to perform. If I trouble you with a few examples, I shall probably be best able to convey my meaning.

Concerning the treatment of syphilitic iritis, there is probably but little hesitation or difference of opinion amongst specialists, and perhaps I could hardly mention another disease respecting which the opinions of specialists are more widely known and accepted. That atropine should be used from the first, frequently, freely, and in strong solution, and that mercury and iodide of potassium are very useful and ought always to be given, but in no degree compare in importance with mydriatics, I take to be the acknowledged canon. It would be easy to prepare an explicit schema for the treatment of this disease, giving the exact strength of the atropine, the frequency of its application, the precise dose of the mercurial, and suggesting a few of the more important means which help success, such as a purgative, leeches to the temples, and low diet. This might be done in ten lines, and so printed in a visiting-list or pocket-book that it should be readily accessible to all. It would be better that such a schema should be propounded under the auspices of a society than that it should come from an individual. In many parallel instances, the discussion and examination which such *schemata* of treatment would receive at the hands of our Society would, no doubt, be of great use in perfecting them, as well as adding to their authority.

I do not doubt that there are, at the present moment, whilst I am speaking to you, in the homes, the schools, the workhouses, and the hospitals of England, some thousands of children who are suffering from ulcerations on the cornea, attended with intolerance of light, causing the patient great distress and annoyance through many months, and destined often to leave disfiguring and incapacitating scars. If my own experience may be trusted, I believe that three-

fourths of these would be almost well in the course of a fortnight under the use of a very weak yellow oxide ointment. Many of them, no doubt, are getting it, but a considerable majority probably are not; for the rule of treatment is not yet universally acknowledged amongst specialists, and certainly not very widely known in the profession.

If this Society could, after an examination of the subject, determine upon the recommendation of an explicit formula which would be likely to result in the prompt cure of these very troublesome cases, it would confer an immense boon upon the public. Such a formula, so recommended, would be copied into every medical journal and into every manual. It would be reprinted over and over again, and would become the property of the whole profession.

Is it not somewhat humiliating to reflect that if a quack were to bring out a very weak Pagenstecher's ointment, give it a telling name, and push it into notice as a specific for chronic inflammations of the eye, he would be a public benefactor? No doubt it would often be used in error, but it would even then do little or no harm, and I have not the least doubt that the balance of gain would enormously preponderate. My own experience has been, that since I knew the virtues of this ointment I have been able to abandon almost entirely the use of blisters, setons, and like painful measures, and to effect the cure in a tenth of the time. I have reason to think that a large majority of ophthalmic specialists have had a like experience. Yet we hesitate to come boldly before the general profession and announce loudly an important item of progress. We fear to boast, we dread to impair the scientific spirit by the formation prematurely of general rules; and, seeking to quiet our consciences by reminding ourselves that after all the thing is no secret, we do nothing further in the matter. Our reticence is a loss to the nation, it is an injury to hundreds and to thousands whom the benefits of modern ophthalmological science might reach if we would only consent to throw away our scruples. Is it not a frequent failing amongst the more scientific part of our profession to become superfine? We dread the spirit of the charlatan and the self-seeker so much, that we come, like David when in presence of the sinner, to hold our peace even from good. In the individual, scrupulous care in these respects is most meritorious; nothing is less to be desired than that those who believe themselves to have made therapeutic discoveries should deem it their duty to proclaim them ostentatiously. Let them be brought forward in the first instance quietly, and under the cognisance only of those skilled to judge of them.

But the fact that it is meritorious in individuals to abstain from pushing their favourite remedies, only throws the duty, to which I have been alluding, the more definitely upon public bodies like ourselves. No one could impugn our motives or doubt our sincerity, and our verdicts would be received not certainly as final, but as entitled, at any rate, to a temporary acceptance.

Let no one suspect me of wishing to stereotype knowledge or to damp the ardour of any skilled person in the endeavour yet further to improve our therapeutic resources. There is no fear in that direction; and what I am concerned to assert is this, that nine out of ten of the practising part of the profession would most thankfully receive from this Society detailed schemata for the treatment of various typical forms of eye disease. Let me further add—without, I hope, hurting anyone's feelings—that I feel sure the use of them would tend immensely to the benefit of their patients as compared with the extemporised prescriptions now employed. It is not in the power even of the most laborious of those engaged in family practice, to keep their minds well stored with details respecting the management of diseases which, although very common with us, are rarities to them.

I might easily mention a number of special types and forms of eye disease—purulent ophthalmia, rheumatic iritis, episcleritis, catarrhal ophthalmia, glaucoma, and the like—for which definite schemes of treatment could easily be laid down. It will, I have no doubt, be objected, that, after all, successful treatment depends upon the correctness of the diagnosis. This statement is almost as obvious as was the famous injunction to "first catch your hare." It is no reason that because diagnosis is difficult, therapeutics should be left in a muddle also.

I might urge further that I believe, working on the same lines, this Society might do much to put the diagnosis of



eye diseases more easily within the reach of British practitioners in general.

There is no one present who has not been pained over and over again by having to treat cases of glaucoma which were brought to him too late. In spite of all that has been done by specialists, and in spite of the fame which iridectomy cures have obtained, it is still the fact that a large proportion of cases of acute glaucoma are unrecognised during the first fortnight by those under whose observation the patients come. Practitioners of the most scrupulous care, of wide general information, and the most conscientious regard for their patients' good, are yet very commonly misled by the acute congestion and severe constitutional symptoms which often attend the early stages of this disease.

It was my fortune, some years ago, to operate upon three cases of this kind in one week, in all of which the proper time for interference had been allowed to pass by, on account of the patients' severe general illness.

In one instance I became acquainted with the facts of a case in which a benevolent country surgeon, aided by two or three friends, was himself maintaining a lady who had lost her sight, and consequently her occupation, from double acute glaucoma. He had himself attended her from the beginning, and when I gently hinted at the possibility—to me, a practical certainty—that iridectomy at the proper time would have saved the lady's sight for the rest of her life, he promptly replied “that the eyes were so much inflamed in the first instance, and the patient so ill, that he was quite sure I should never have thought of operating.” I said no more, for it would have been cruel to tell him that these were the very symptoms which denoted the necessity for an operation.

Some years ago, in the early days of the keratome, I felt so strongly on this subject that I had some thoughts of engaging a full page in the *Lancet* for a big red-lettered anonymous advertisement, so staring that all must read it, stating in a dozen words the symptoms and inevitable result of glaucoma, together with the certainty of its cure by operation.

And now, looking back upon such impulses of enthusiasm, I do deliberately declare my conviction that a society like our own would have been more than justified in taking such a step. At that time acute glaucoma probably had, on British soil alone, its daily victim, whom it left in irrevocable blindness. In the present day the number has been greatly diminished, but it is still, no doubt, very considerable. Our confidence in the remedy which we then hailed has remained unshaken; and it is most certainly a very melancholy thought, that there are thousands now living without sight who might have saved it very easily had there existed any efficient means for the rapid diffusion of the new knowledge.

I must not trespass further upon your patience in this matter. Briefly, what I desire to urge is this, that we ought not to be content with doing our utmost to make knowledge perfect, and to secure its application in our own immediate spheres of action, but that it is well worth a thought whether societies like our own have not duties to perform in respect to its diffusion. I will not for a moment doubt that a subject so important will receive from you such attention as your judgments may deem it entitled to.

Is it too much to hope that something of the nature of a compendium of ophthalmic therapeutics may sometime be prepared, which shall bear the authority of a society's consensus? Such a code should of course be destined to modification from time to time, but it would probably from the first be a great advance upon the statements of any individual, both in explicitness, in brevity, and in the amount of practical experience which it would summarise.

Should the Society see its way in the future to any action in this matter, much collateral advantage might be expected by the more detailed attention to therapeutics which would be given by the committees appointed to report.

Had time permitted, I might have ventured to bring before you a few other suggestions as to work which the Society might undertake collectively—such, for instance, as a systematic examination of symptoms with the object of defining and describing them more accurately; of preparing detailed lists of the more rare types and forms of disease, and giving to each its concise description; and possibly, after this were done, of preparing nosological lists which might assist the labours of hospital registrars.

## AN ANOMALOUS CASE OF CEREBRO-SPINAL SCLEROSIS.(a)

By H. CHARLTON BASTIAN, M.D., F.R.C.P., F.R.S., etc.

Professor of Pathological Anatomy at University College,  
Physician to University College Hospital, etc.

JOSEPH H. had been under observation at University College Hospital from time to time since the year 1877. He died on March 24, 1882, being then sixty-two years of age. There was a neurotic history; no syphilis. In August, 1868 (then aged forty-nine), he fell down a flight of stone steps. The patient dates his illness from eighteen months after the accident, when he began to complain (1) of dragging of the left foot in walking, (2) of tingling at the tips of left fingers, and (3) of deafness in left ear. After twelve months the first of these symptoms had disappeared; the other two remained. Four years and a half later his left leg again began to be weak. This was soon followed by weakness of the right arm and leg, and deafness on the right side. From August, 1876, he became gradually worse. He was first admitted into the hospital in October, 1877. He then suffered from paresis in all limbs; tingling in both hands; deafness and noises in both ears; giddiness; occasional headache; and pains in the eyeballs. There was no optic neuritis now or later on. There was no definite mental defect, but speech was indistinct and slow, with separate pronunciation of each syllable. Motor cranial nerves not distinctly affected. Deglutition natural. He stands and walks only with much difficulty. There was considerable rigidity of both legs, and some loss of power over the bladder. Knee-jerk present, and equal on two sides. No tremors, either spontaneous or on movement, in either lower extremity. He left the hospital early in 1878, walking slightly better, but otherwise in much the same condition. Early in July, 1880, the patient was again admitted under my care. His intellect was unimpaired; voice even more drawling and slow; deglutition natural. The chief alterations in his condition were these:—Loss of all power of walking and of standing without assistance; loss even of power of raising feet from bed; loss of power over right hand (so that he could not feed himself or write with it as previously), with slightly increased force of grip on left side; much more paralysis of trunk-muscles; the occurrence of the so-called “tache cérébrale,” and of “factitious urticaria,” after slight and more severe irritation respectively of skin; burning pains in trunk and limbs. The joints of the upper extremities were now rigid, and the muscles were wasted. The right leg was slightly flexed at the knee, the left extended at all joints; some rigidity on both sides. Muscles irritable to mechanical stimuli, and the interrupted current produced a tetanic condition of the muscles of the lower extremities to which it was applied. Both ankle-clonus and exaggeration of knee-jerk well marked, especially on the left side. There were still no spontaneous tremors or fibrillary twitchings in any parts, and no tremors on movement. Morning temperature often above, and evening temperature often below, the normal—99.5° and 97.5° respectively. About this time, too, the patient became more emotional, crying and laughing frequently, and on slight provocation. He left the hospital, at his own desire, on October 14, 1880, but was again admitted under my care on January 2, 1882. Still no intellectual impairment; speech and deafness as before; deglutition still unimpaired. Tongue protruded in straight line. No tremors. Right upper extremity rigidly flexed and motionless; on left side slight power of movement at all joints. No power of moving any part of either lower extremity. No control over fæces. Retention of urine, with dribbling and some cystitis. Breathing wholly diaphragmatic. Intercostals almost completely paralysed. Widespread numbness, with diminution of sensibility. Superficial reflexes all abolished. Knee-jerk exaggerated as before. Ankle-clonus easily obtained on left, absent on right side, though it returned two or three weeks later. Factitious urticaria still easily obtainable. During the next two months the patient suffered from frequent emotional disturbances—strange dreams of a terrifying nature, and many

(a) Abstract of a paper read before the Clinical Society at the meeting on October 12, 1883.



painful subjective sensations. On March 15 it was found that the patient had wasted considerably since the beginning of January. About this time his appetite failed, his tongue became thickly furred, and his temperature rose slightly. Fresh cystitis, with blood in the urine, appeared; and bronchitis, from which he had been suffering slightly for about a month, became gradually worse. He died asphyxiated on March 25, having been quite unable to expectorate any mucus.

*Autopsy* (twenty hours after death).—Brain: Meninges healthy; slight amount of subarachnoid serum. On the under surface of the pons two superficial grey patches were seen. One of them, a quarter of an inch in diameter, was situated near the middle line, contiguous to the extremity of the left anterior pyramid of the medulla, which was flatter than natural, and had a greyish tinge almost uniformly throughout its substance. The right anterior pyramid on section was also found to show much grey degeneration, though less than its fellow. Sections through other parts of the medulla and through the pons showed many greyish-red patches of sclerosis, varying in diameter from a pea to a mustard-seed. The root of the right auditory nerve for nearly half an inch was distinctly grey and semi-translucent. On the left side this was less marked in the superficial portion of the auditory root. The other cranial nerves were apparently healthy. The white substance of both cerebral hemispheres, but especially that of the posterior half of the left hemisphere, showed small grey areas here and there. In one section, through the region mentioned, about fifteen small patches were seen within a space of about two and a half square inches. None of them seemed to implicate the cortical grey matter. The lining membrane of the lateral ventricles was thickened and very tough, and grey patches of discolouration were seen here and there on the surface of the thalami. On section, similar patches were found through different parts of the interior of both thalami, but the corpora striata and the cerebellum were free from them. Spinal Cord: Meninges healthy. Cord presenting no unnatural appearances externally. When sections were made, the antero-lateral columns seemed to occupy an area relatively smaller than natural. No distinct changes of texture were recognisable by the naked eye on the cut surfaces in the eight or nine places in which sections were made; but after the cord had been immersed for some time in bichromate of ammonia, areas of degeneration were easily recognisable when fresh sections were made. A well-marked patch was seen, for instance, in the left cervical region, implicating a large portion of the lateral column, as well as a portion of the contiguous grey matter. Smaller patches also existed in this region, in the lateral column of the right side. In the lower dorsal region a distinct tract of sclerosis occupied the central portions of the posterior columns on each side of the middle line. In other portions of the dorsal, and in the lumbar regions, no very distinct patches of degeneration were seen with the naked eye, but on subsequent microscopical examination a diffuse overgrowth of connective tissue (not taking the form of limited patches or tracts) was seen in many parts of the lateral and of the posterior columns. The nerve-cells also, but especially in the lumbar region, were very notably atrophied. The central canal was enlarged throughout the whole of the cord, and densely packed with small round cells. The patches of degeneration in the medulla and other parts of the brain presented all the typical characters of areas of sclerosis in nerve-tissue.

Charcot, in his admirable account of "disseminated sclerosis," says: "It rarely shows itself after thirty years. The age of forty seems, on the other hand, to be the outside limit to which patients attacked with disseminated sclerosis attain." It is worthy of note, therefore, that in the case of J. H. the disease first showed itself when he was over fifty years of age, and that the patient lived to attain the age of sixty-two. In regard to etiology, the only points to attract attention are—first, some evidence of a neurotic tendency; and, secondly, the fall over a flight of steps eighteen months before the first distinct signs of the disease. The arrest of the disease for four years and a half, and the symmetry of its manifestation after this date, are interesting features. Although the patches of degeneration were so numerous in the medulla and in the pons, convulsions were absent from first to last. Again, it is worthy of note that the characteristic tremors on movement, which so frequently constitute a marked feature in this disease, were also absent from first

to last. The early weakening of cerebral control over the bladder was probably due to the existence of an extreme amount of disease in both anterior pyramids. Although the sclerosis of the anterior pyramids (and especially of that on the left side) was so marked, yet nothing like a secondary degeneration existed in either lateral column of the cord. This is in harmony with what might have been expected, since it is well known that in these patches of sclerosis the axis-cylinders are not commonly destroyed, although they are more or less pressed upon and damaged. It could not be expected, therefore, that the same results would follow from a patch of sclerosis, however well developed, involving the anterior pyramids, as might be looked for from a destructive lesion (e.g., a traumatic section or a complete softening). It seems probable that the hallucinations and abnormal sensory phenomena which occurred, especially during the last few months of life, were due to the late development of patches of sclerosis in the thalami as well as in the white substance of the posterior third of each cerebral hemisphere. The power of provoking in this case, over a period of several years, both a "tache cérébrale" and "factitious urticaria" are interesting facts in themselves, and especially from the point of view of the pathogenesis of this latter condition. In regard to diagnosis, it was pointed out that in the early stages of this patient's illness all the symptoms were to be accounted for by a disease of the medulla oblongata, and that the evidence even at that time was clearly against the existence of a tumour, and in favour of disseminated sclerosis involving this region in such a way as successively to abolish the functions of the auditory nerves without interfering with the portio dura, and again of impairing the power of articulation whilst it left that of deglutition intact. The subsequent progress of the case was felt to strengthen the diagnosis of disseminated sclerosis.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### CHARING-CROSS HOSPITAL.

#### REMOVAL OF THE GREATER PORTION OF BOTH UPPER JAW-BONES, WITHOUT EXTERNAL IN- CISION.

(Under the care of Mr. BELLAMY.)

[For the notes of this case we are indebted to Mr. B. W. THOMAS,  
the Dresser.]

THE patient, a man fifty-eight years of age, was admitted under Mr. Bellamy's care, September 27, 1883, with extensive epithelioma invading the entire palate, and, as far as could be made out, both superior maxillæ.

The family history of the patient is good. There is no history of specific or malignant disease to be obtained.

*History of Patient.*—He has for the greater part of his life enjoyed good health. When ten years old he "suffered from typhus fever," and has since had occasional attacks of sciatica. Three months ago he attended as an out-patient of this hospital, suffering from external hæmorrhoids. Five months ago, patient noticed a small swelling in the roof of his mouth, lying behind the incisor teeth of the right jaw. He saw a medical man, who said it was an abscess, and, on opening it with a lancet, there was no discharge. As the sore in the roof of his mouth appeared to be spreading fast, there being at the same time a foul discharge, he came to this hospital.

*Condition on Admission.*—On examination, a large ulcer was seen in the roof of his mouth, extending forwards to the incisor teeth, and backwards so as to involve the soft palate, outwards on the right side to the molar teeth (several of these and one bicuspid had dropped out from the extension of the disease). The ulcer extended also for a slight distance to the left of the median line; the edges of the ulcer were thickened and everted, and its base was covered with a foul slough. A probe could be passed through the hard palate into the right nostril. Patient was unable to breathe through his right nostril, from which there was a most offensive discharge. There was no appreciable enlargement of the glands in the neighbourhood of the lower jaw.



*Operation* (October 4).—Complete anæsthesia being produced, Mr. Bellamy extracted the teeth of the upper jaw with forceps; he then performed Rouge's operation of detaching and raising the upper lip and nose from the superior maxillary bones, and so getting a good view of the anterior choanæ. He next passed a small stout saw into the nostril, and divided the hard palate. This was completed by nipping through it with a pair of powerful Liston's forceps. The soft parts were next dissected up from the bones. The removal of the rest of the diseased bone was effected by grasping with lion forceps each lateral half thus divided, wrenching them aside, and cutting away with the Liston forceps all the tissues which appeared to be diseased. Both superior maxillæ as far as the orbital plates were thus removed, and the parts trimmed with strong scissors afterwards; the actual cautery being freely applied to all bleeding points. There was little or no hæmorrhage to speak of, and the patient rallied very soon from the operation.

October 4.—At 6 p.m. on the evening of the operation, temperature rose to  $103.4^{\circ}$ , at 9 p.m. it was  $102.4^{\circ}$ .

5th.—Patient passed a good night. There was some discharge, which he was unable to expectorate. Wounds looked healthy. In the morning, temperature 99·4°; in the evening, temperature 100°.

6th.—Patient's right eye and cheek are a little puffy. For the first three days he was fed entirely by enemata, which were well retained.

8th.—Morning temperature 100.4°, evening 101.6°. Bowels were opened three times. Yesterday morning the patient was for the first time fed by the mouth.

9th.—Patient feels remarkably well. Temperature and pulse normal.

Remarks (by Mr. Bellamy).—In all cases of removal or partial removal of the jaws it is, of course, of the utmost importance to avoid injury to the face. In some instances this is clearly impossible; in others, such as the present, it was to be attempted. There was no external tumour, and the contour of the face was unaffected; hence it might be presumed that, by a careful *internal liberation* of the parts, the diseased structures might be removed. The adoption of Rouge's modification was invaluable, and the putting aside of cutting instruments, such as knives, at an early stage, saved hæmorrhage. The crushing power of forceps and stout scissors almost torsioned the bleeding ends of vessels of itself. I was at first inclined to do a prophylactic tracheotomy, and to use Trendelenburg's tamponade apparatus, but did not do so, though I was prepared to perform the operation at any moment; this, however, from the perfect way in which the anæsthetic was administered, and the rapid progress of the operation, was unnecessary. Owing to the extension of the disease into the soft palate, the preliminary steps of dividing the palate were useless; and it is somewhat remarkable that, on the fourth day after the operation, the patient was able to swallow (he was at first fed by enemata). You may possibly remember a case in which I had removed the half of the lower jaw, in a girl, from within the mouth, without wounding the face at all. These are, of course, fortunate instances, but showing that by careful internal dissection, and more particularly the use of forceps after the tissues have been liberated, these operations are not so difficult as may be imagined.

PROF. FRAENTZEL ON TUBERCULOSIS.—Prof. Fraentzel, while giving all the results of his authority and experience in favour of the bacillus theory of tuberculosis, is of opinion that the careful series of experiments by Koch and Goffky decisively show the inefficacy of all inhalation methods. It would seem as if the medicaments employed in this way did not reach the diseased parts of the lungs, since those which proved to be the strongest poisons against pure cultures did not in the least diminish the number of the tubercle-bacilli in the sputa. He rejects as useless, on the other hand, and as rather cruel, the direct application of strong anti-bacteric solutions (bichloride of mercury!) to the lung-tissue, as recently performed by means of a Pravaz syringe in some clinical wards. So we find ourselves restricted to internal medication, and must try to overcome the enemy in that way. Until now, Prof. Fraentzel ascribes the best results to the creasote treatment, following the formula of Bouthard and Groubert, which he adopted a couple of years before the germ-theory appeared.—*Phil. Med. News*,

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Medical Times and Gazette.

SATURDAY, OCTOBER 20, 1883.

THE FEDERATION OF THE LONDON SCHOOLS.

THOUGH the entries at the London hospitals this year have exceeded all expectations, and have for the moment relieved the anxiety of the metropolitan teachers, there is no doubt that the latter must brace themselves up for many further and more radical changes if they are to contend successfully against the growing competition of the schools in Scotland and the provinces. The efforts which have been made within recent years, in nearly all the metropolitan schools, to bring up their education to the requirements of the day, may be cordially acknowledged without blinding us to the necessity of still further improvement. Hitherto the tendency has been towards greater complexity and a greater specialisation of function in the educational machine. Old branches have been split up, and new branches introduced, until the list of subjects and lecturers at our smallest school must strike anyone with astonishment who compares them with the number of lecturers thought sufficient for the united schools of Guy's and St. Thomas's in the first half of the century. It is pretty certain that at length the limits of a safe differentiation of subjects have been reached, and that the time for the contrary process, viz., the integration of schools, is at hand. Some such change is becoming necessary in the interests of economy, if not of efficiency; it is becoming necessary in order to husband the resources both of the student and his teacher. On the one hand, the expense of maintaining a dozen dissecting-rooms and laboratories, all competing with each other in respect of completeness and excellence, forms a serious handicap on medical education in the metropolis; while, at the same time, it means a very large deduction from the fees available to remunerate the teachers. On the other hand, as Professor Huxley has pointed out, dozens of men are compelled to teach subjects in which they are neither deeply interested nor thoroughly instructed; or, if their subject be one that they can teach with love, they find that they have to spend on a class of twenty the effort that would



be sufficient for ten times that number. It is utterly absurd that we should have a dozen separate lecturers in London on such subjects as botany, comparative anatomy, and forensic medicine, when three or, at the outside, four in each branch would be sufficient to meet every requirement. As to the value of the teaching in these subjects in many cases, the less said the better. The only argument in favour of the system is the one advanced in these pages last week, viz., that it happens to serve as an indirect endowment of pure research. Of course, it is utterly illogical, as we well know, to pay a man for doing something that he can only do indifferently, in order that he may be able to follow unpaid work that he can do well, and no one in his senses would have devised such a system. But it is there, it has grown up insensibly amongst us, and before sweeping it away it will be well to find another system which will remove its defects without having the effect of driving scores of able and hard-working teachers into general practice or quackery.

With a little enthusiasm, a little self-sacrifice, and a little courage, the thing is to be done, we are sure; but if the change is to be successful it must be radical. No tinkering little amendments will avail to tempt to London the scores of students that now flock to Edinburgh from all parts of England, not to mention the colonies. Edinburgh is not, on the whole, a pleasanter town for a student to live in than London; it has not better teachers, for we seduce its best away as soon as they make a name; it has no special diseases that will bear mention, nor greater facilities for clinical work. It is simply a better organised centre of education; its resources are husbanded, instead of being frittered away over a dozen centres; its lecturers work better together, and the whole organisation by its very size and homogeneity has a greater attraction for the student's mind than any single London hospital. Consequently, when for some cause or another the London entries suddenly fall off by a hundred and more, the Edinburgh entries still keep on increasing. It is the same, though in a less degree, with the provincial schools, which are rapidly rising into a position of serious rivalry with those of the metropolis. The fault is not in our teachers, nor in our hospitals, nor in our supply of material, nor in the reputation of the metropolis as a seducer of youth—a young man is probably safer in London than in a provincial town; it is in our system. Everyone who has thought over the matter has admitted this for years. It did not need Professor Huxley to point it out. Sooner or later a change must be made, and when it comes it ought to be made on a grand scale. The whole subject should be reviewed, and reorganised on the widest principles.

The changes we are about to suggest may perhaps appear to many far too revolutionary. But Time has a way of turning out of her womb more terrible infants in the way of reforms than the most advanced dreamer had ever looked for; and in this matter, we are sure, Time is on the side of reform. The first step necessary to secure economy of educational effort is to bring all the medical schools together under one central council, on which each school and each examining body would be duly represented, while each would retain full control of its own local affairs. The advantages of such a federation have recently been sought voluntarily by the schools in one point—viz., the distribution of bodies for dissecting, in proportion to the needs of each school,—and it might be hoped that a similar equilibrium between supply and demand would be obtained in other subjects than anatomy if there were a central council which had the control of the resources of education. The next step would be to follow out Professor Huxley's proposal, and concentrate the teaching of everything which can be taught

away from the hospital—anatomy, physiology, histology, chemistry and practical chemistry, botany, materia medica, comparative anatomy, physics, forensic medicine—at four central schools, each provided with the necessary apparatus of instruction in the most complete manner. The professor or lecturer on each subject would be appointed by the central authority, and his post would be of such a character, both from its emoluments and its dignity, as to attract the very best talent to it; while the demonstrators and assistants in each department, having such a goal constantly before their eyes, and knowing that it was only to be attained by intrinsic merit, would be ever stimulated to fresh exertions, both in the way of teaching and research, instead of living the aimless and often hopeless existence that they now so frequently do. Each demonstrator might in time hope to become a professor, and he would at any rate feel certain, of what he cannot feel certain now—that if any one were appointed over his head, it would be because of superior merit in that special branch, and not because of any claim arising from the value of services in an entirely separate department. Under this new system the expenses of primary medical teaching, which are now exorbitant, could be materially reduced, and a considerable fund would thus be available to pay the younger members of the hospital staffs for work in their own special lines. For, having abolished at least seven out of every eleven chairs of primary medical instruction, a large amount of teaching power would be set free, and the best way of utilising it would be to employ it in a more systematic clinical teaching in the hospital wards and out-patient rooms. If the whole of the elementary teaching of medicine, surgery, gynaecology, and the specialties were entrusted, as we think it should be, to men of junior standing, the senior members of each hospital staff would be able to devote themselves, with the greatest advantage, to the higher medicine and surgery, which are now, except here and there, almost entirely neglected, because the teacher finds his followers insufficiently advanced to appreciate their niceties.

The next reform, which would necessarily follow from those already advocated, and which would be less a reform than a revival, would be to throw open the teaching and the appointments at each hospital, general or special, to every student. By this means the teacher, instead of having a compulsory class ready made for him, would have to depend for a following on the excellence of his teaching, and for his remuneration on his power of attracting students. This would introduce competition amongst the teachers, and would at once give vitality to clinical instruction throughout the metropolis. But before such a reform could be safely initiated it would be absolutely necessary to render the examinations more frequent, more searching, and more practical. It must be quite possible for a painstaking examiner to inform himself from his own inquiries, without any help from the apparatus of schedules, whether a given student knows his work and will make a safe practitioner. A good examiner can afford to be entirely indifferent to where, when, and how a student has learnt his profession, provided only that he knows it. Another valuable reform, though not an absolutely necessary one, would be to concentrate all the chief special hospitals into three or four polyclinics—an innovation which would be greatly to the advantage of everyone except those specialists who cannot stand on their own merits.

We are well aware that some of these suggestions will be extremely distasteful to many teachers, who, in their modesty, are afraid of the results of open competition. Some, too, perhaps will be found to contend that the student cannot be relied upon as a competent judge of teaching, that adulteration would infallibly follow on competition, and that the



largest classes would gather, as they have done before now, around the dogmatist and the brilliant talker. But we have faith enough in our students to believe that they would appreciate earnestness, energy, and enthusiasm in the teacher, and if the examinations were only efficient, they would rapidly find out from whom they could most easily learn their profession. Then the best teachers would obtain not only the most numerous following, but the best clinical clerks. Their cases would be better studied and reported than those of less successful teachers, and their task would be immensely facilitated. There may be room for difference of opinion in respect to detail, but we are sure that some such scheme as we have sketched out must be introduced if London is to retain the pre-eminence as a centre of medical education, which from the size and variety of its hospitals, the wealth of its material, and the excellence of its teachers, it fully deserves to hold.

#### DR. KOCH'S RESEARCHES ON CHOLERA.

THE report of the head of the German Scientific Commission, which we reproduce in another column, is a model of lucid and unexaggerated statement, and well deserves careful reading, not only for its matter, but for its manner. It will be seen that Dr. Koch clearly perceives and lays down the exact limits of the conclusion deducible from his discovery, and his anxiety not to strain it beyond the weight which it will legitimately bear should be a lesson to those who, more Kochite than Koch, have been proclaiming that, because certain rod-shaped bacteria have been found in the intestine in nine cases of cholera, the cause of the disease has been isolated, and the whole problem solved. The Commission has had a difficult and a dangerous task; its members have had to busy themselves, day after day, with material which, according to the belief of many of them, and probably according to the hopes of all, was the very essence of a terrible disease. They have had to live in rooms where this material was evaporating, and to officiate as purveyors of it to numerous animals whom they expected to become its victims. And their enthusiasm has been such that, beaten in their attack on one part of the problem in one place, they have begged to be allowed to continue their researches on it in another, where, according to their theory, the infection is still more active. If an enthusiastic driving of evidence to support a preconceived theory is pardonable in anyone, it was pardonable in them, and, accordingly, Dr. Koch's determination to be bound strictly by the rules of the scientific game in the pursuit of his quarry deserves every recognition from the scientific world.

The results of the investigation may be briefly summarised. Micro-organisms were looked for in vain in the blood of cholera patients; they were found only in relatively small amount in the vomit, but in large quantities in the evacuations. In the cadavers there was no trace of organised infective material in the blood or solid viscera, and the contents of the bowel, though containing numerous micro-organisms, showed no preponderance of any particular variety. The bowel itself, on the other hand, especially the lower part of the small intestine, was invariably, in recent cases of cholera, found to be invaded by hosts of bacilli, in size and shape resembling those met with in glanders. These organisms were collected chiefly in and around the follicles, where they had evidently set up much irritation, and on the villi, into the substance of which they had often penetrated. The autopsies were made, fortunately for the scientific certainty of the results, immediately after death, before any putrefactive changes had had time to make their appearance and complicate the inquiry.

So far, the success of the investigation was beyond the

most sanguine expectations. But the further experiments which were necessary, in Dr. Koch's opinion, to prove the causal nexus between cholera and the specific bacteria discovered, were unsuccessful. The most varied attempts were made to infect animals of the most different kinds, but though some of the subjects of the experiments died of septicæmia, in no case was cholera reproduced. This may have been due to the fact that no animal yet experimented on is capable of taking the disease, or to the fact that the proper mode of communicating it has yet to be discovered. But Dr. Koch inclines to a third explanation, which is, that at the time when the investigations were made, cholera was losing its virulence. It was already ceasing to affect man, and it was hardly to be expected that, under these circumstances, animals, which have always shown a great power of resisting the infection, should fall a prey to it, however strong the dose of poison administered to them. Acting on this hypothesis, Dr. Koch has petitioned for, and obtained, the consent of his Government to proceed to Bombay, where cholera is still very prevalent, there to continue his investigations, under conditions equally favourable as far as hospital accommodation is concerned, and presumably more favourable in respect to the infectivity of the disease. We cannot conclude this brief *resumé* without expressing the opinion that both Dr. Koch and German science in general have, by the way in which the investigation has been conducted, added materially to their reputation, and increased the debt which we all owe them.

#### MORS IN OLLA?

FOUR hundred and thirty-one persons disabled for many weeks, and sixty dead, is the estimated result of the St. Pancras epidemic. As a rule, catastrophes due to causes acting silently and secretly, and developing their effects by isolated and successive phenomena, do not produce the same vivid impression, nor raise the tide of human sympathy to such a height as an equal fatality from fire, falls of buildings, collisions, or shipwreck; but, in this case, public attention has been much excited and public emotion aroused, and we are glad to receive and criticise the details of the outbreak as set forth in a special report by Mr. Murphy.

On July 28, three households in North and South-villas and in Camden-park-road were simultaneously attacked with typhoid fever, and on almost each day following up to September 8 fresh typhoid centres developed, so that at last no less than 276 households were attacked and the number and fatality already mentioned attained; July 7, 13, and 19, August 24, 25, and 27, were days on which the crop of sickness was especially heavy. The chief incidence of the disease was an area of about half a mile in diameter, its centre being the "Britannia," Camden Town; but a glance at the map accompanying the report, on which affected houses are denoted by red spots, shows the spots scattered at wide distances from the chief focus. Of the 431 persons attacked, 368, or about 85 per cent., derived their milk-supply from a large dairy situated near the "Britannia," and therefore in the very centre of the epidemic area. This dairy (referred to in the report as that of Mr. X.) was early infected, for on August 7, Mr. X.'s partner and the servant became ill of typhoid fever, and the same disease on August 12, 13, 15, and 19 attacked three of the milk-carriers and a boy, altogether more than a third of the *employés*.

Mr. Murphy next proceeds to exclude everything but the milk. It was not produced by the Regent's Canal, for Park Village, Albert-road, and Augustus-street were unaffected; nor by a polluted water-supply; nor by sanitary defects in the houses themselves; nor at Mr. X.'s dairy—the fever there being considered a result of infected milk, not



the cause of the infection. The reasoning by exclusion is followed by calculations of the percentage of houses attacked. Taking the entire parish of St. Pancras, and also the most affected district of Regent's-park, Mr. Murphy calculates, from data furnished by a list of Mr. X.'s direct and indirect customers, that in the whole area Mr. X.'s natural share should have been 3·7 per cent. of typhoid fever cases, whereas it is 78·2, while in the sub-district it should have been 7·8 per cent., and it is 89·8 per cent.

This reasoning is ingenious, but not wholly free from fallacy: a stronger part of Mr. Murphy's case lies in the result of a house-to-house inspection of certain streets. In 387 houses visited, 258 were supplied by other milk-vendors, and 3 only, or about 1·1 per cent., were affected; while of 132 households supplied by Mr. X., 37, or about 28 per cent., were attacked. So again, considerable weight must be given to the case of the 25 female clerks, 12 of whom drank milk at Mr. X.'s shop: of these 4 certainly had typhoid, and 2 others suffered from what seemed to be a mild attack; while those who did not drink the milk escaped. Again, in a house of business there were 17 people employed; 7 drank beer, 10 Mr. X.'s milk: the beer-drinkers escaped, but 7 of the milk-drinkers were attacked. Attempts are next made to trace the infection backward to one of the five country sources of the milk, four having been satisfactorily excluded. The milk suspect came from a farm near St. Albans. Porters who probably drank it at Kentish Town Station sickened with typhoid; households on Mr. X.'s own list, known to have been specially supplied with St. Albans milk, suffered in the proportion of about 11 per cent. more than those not known to have been thus supplied; and lastly, twelve persons living in seven houses in St. Albans, drinking milk from the same farm, were attacked between July 28 and the beginning of September, the milk-supply being, it is said, almost limited to the households infected. At the farm itself, one positive, a second possible, case occurred, on August 4 and 6 respectively—dates too late to have anything to do with the July and, even allowing for incubation period, with the August London outbreak. The sanitary arrangements also were not free from danger: a cesspit attached to a privy was but twenty-nine feet from the well, the water of which was used in the dairy. Analysis, however, did not condemn the water, nor did experiment establish any connexion between well and cesspit.

This, then, we believe, is a brief but fair summary of Mr. Murphy's investigation, and of his deductions. There is nothing *per se* improbable in milk not only playing the part of an infected garment, but also that of what biologists call "a cultivation liquid"; but there has been of late years too great a tendency to refer all outbreaks of fever to infected milk, though but little of the published evidence would satisfy a legal mind; and we have marked in more than one instance a looseness of statement, an explanation ready for every difficulty, a concealment of facts making against, an exaggeration of those making for the theory, as though the investigator held the brief of a prosecuting counsel. We by no means say that Mr. Murphy's report possesses these defects; but we do say that we are not entirely satisfied. A letter communicated to the *Daily News* by Dr. J. Murray, of St. Albans, leads us to suspect that some very important circumstances have been overlooked or suppressed. Thirteen visitors at the farm itself, Dr. Murray's own family, and others, drank the milk regularly, and yet escaped. Were the precautions taken at the infected London dairy sufficient to render it certain the milk was not partially and intermittently contaminated there? Is the question of simple coincidence in typhoid area due to some local condition, and Mr. X.'s arena of milk-supply operations completely settled? Is it not a

fact that typhoid fever during August and September has been unusually rife in other parts of the metropolis to which Mr. X. never sends his carts? Lastly, is the explanation of the supposed particulate nature of the typhoid contagium considered sufficient to account for so small a number, comparatively, of the persons who drank the milk being attacked? or, put in another form, is it possible to dispense for days sixteen gallons of dilute typhoid poison in pints and half-pints to such a population, and only infect some 400 people? Whether Mr. Murphy's explanation of the outbreak is correct or not, this much is clear—while it is possible for remote farms to possess bad drains, foul cess-pits, and polluted water, and yet be permitted to supply the largest, richest, and most important city in the world, all town milk should be boiled before use. Two organisms alone, the anthrax bacillus and the hay bacillus in the spore state, are known to withstand for a short time a temperature of 212°: hence there is every reason to believe that by such simple means every family may escape the possible *mors in olla*.

### CHRONICLE OF THE WEEK.

EVERYONE will be astonished and delighted at the number of the entries this year at the London medical schools. When the returns are complete it will probably be found that they exceed by more than a hundred the number of any previous year, even without including the entries for occasional courses, which also show a most satisfactory increase. The very small number of entries last year—the smallest for a decade—had created considerable alarm at the hospitals, especially at those which have recently gone to much expense in fitting up elaborate medical schools. It was seen that the number of metropolitan students was steadily diminishing, while that of the provincial students was as steadily increasing; the percentage of students registered at the chief English provincial schools having steadily gone up from 32·8 in 1879 to 42·5 in 1882. If this ratio were to go on increasing, the average number of students at each of the seven great provincial schools would soon considerably exceed the average of the eleven London hospitals. There was therefore grave cause for anxiety, and the very favourable returns of this October have been noticed with immense relief.

WE have received returns from all the London hospitals except the Middlesex and the Westminster, and the entries for the ordinary curriculum, even omitting those two schools, are 553, while as many as 222 students have entered for occasional or preliminary courses. The following are the returns:—

Charing-cross Hospital .	32	full entries ;	15	occasional.
Guy's Hospital . . . .	74	„	20	„
King's College Hospital .	51	„	21	„
London Hospital . . . .	64	„	49	„
St. Bartholomew's Hospital	120	„	20	„
St. George's Hospital . .	36	„	4	„
St. Mary's Hospital . . .	28	„	7	„
St. Thomas's Hospital . .	65	„	28	„
University Hospital . . .	83	„	58	„

When one compares these 553 entries—which, when all the returns are made, will probably be converted into over 600—with the 461 entries of 1879, the 468 of 1880, the 472 of 1881, and the 371 of last year, one cannot but congratulate the London teachers. It is difficult to account for this sudden rise in the numbers entering the profession, except it be due to the admitted overcrowding in all other callings. We may heartily welcome these new recruits; there is



plenty of room in the world for them and their work. Only one provincial return has come in, that of the Manchester School, where sixty students have entered for the full curriculum, and ten for occasional courses.

At the first meeting of the Ophthalmological Society, on Thursday week, the chief event was the address of the new President, Mr. Jonathan Hutchinson, which contained the important announcement that Mr. Bowman, the retiring President, had offered to guarantee to the Society the sum of £50 per annum for a term of twenty years; an offer which, it is needless to add, had been gratefully accepted by the Council, and elicited a most hearty vote of thanks from the meeting. By a curious coincidence—and Mr. Hutchinson was careful to explain to his hearers that it was only a coincidence—the next announcement he had to make was that the Council of the Society had decided to found, in honour of Mr. Bowman's presidency, a "Bowman Lecture," to be delivered annually or periodically, on some subject connected with ophthalmology, by some one nominated by the Council. There were not many communications, owing to want of time, Dr. Sharkey's, on homonymous hemianopia due to cortical lesion, being the chief one.—The Clinical Society held its first meeting on Friday, October 12, under the presidency of Sir Andrew Clark. A paper "On Peritoneal Abscess in Children," by Dr. Goodhart, gave rise to a discussion which, although occasionally straying beyond the bounds of the subject, brought to light much interesting clinical information upon peritoneal abscesses in general. A very complete and elaborate account of a case of cerebro-spinal sclerosis, in which the characteristic tremors were absent throughout, was contributed by Dr. Charlton Bastian.—At the opening meeting of the Pathological Society, on Tuesday last, the chief communications were—Dr. Carrington, specimen of lympho-sarcoma of the intestine; Mr. Lawson, a cystic tumour springing from the sphenoid bone in an infant; and Dr. Frederick Taylor, a case of syringo-myelus, with syphilitic gumma on the spinal dura mater. Other specimens of interest were also shown, and the meeting was well attended.

THE important remarks made by Sir Andrew Clark at the Clinical Society upon the subject of certain obscure cases of severe illness following the constant use of catheterisation will doubtless meet with earnest consideration from the surgical members of the profession, in whose practice such cases must occur most frequently. The following may be taken as a type of this class of cases:—A man, in otherwise perfect health, complains of incontinence of urine, and, under the advice of his physician, who finds him free from disease of any kind, seeks aid from a surgeon. The presence of an enlarged prostate is diagnosed, catheterisation is recommended, and adopted without any untoward result. Four days later the patient becomes very ill, with rise of temperature and other febrile symptoms, but with absolutely no local manifestations sufficient to account for the general symptoms. As the days pass by, the condition gradually grows more grave, but still without any definite signs or other symptoms than those of increasing fever. Death ensues in the course of nine or ten days, and the autopsy throws no light upon the case, a slightly inflamed bladder being the only departure from the normal condition. That these cases should occur with such frequency that a physician, however large his practice, can quote four or five in each year from his own experience, and that hitherto no kind of explanation has been offered, seems, indeed, an anomaly at the present day, and one which the collective wisdom of the London societies and the numerical power

of the Collective Investigation Committee ought speedily to reduce to its true pathological position.

DR. B. W. RICHARDSON is a man of thoughtful and ingenious mind, but it is to be feared that he sometimes allows his imagination to run away with him, especially where his feelings are deeply engaged. The supporters of total abstinence have secured in him a persuasive but not a safe disputant. On Monday last a crowded meeting in St. Pancras cheered him to the echo as he cleverly manipulated his scientific statistics, which, like Wendell Holmes's spheres, rolled with facile movement wherever he wished them. In the returns of the revenue from alcohol the total abstainers have found ready to their hands a sort of barometer, which gives them accurate indications as to the pressure their efforts are exerting on the public mind and thirst. During the last quarter a sudden rise in the drink returns, after a steady preceding fall, caused much perturbation, which has required all Dr. Richardson's ingenuity to allay. There is no cause for disappointment, we hear; the rise is merely the result of a simple, natural, but hitherto unrecognised law—viz., that people are thirstier in hot weather. This law is amply supported by Mitchell and Buchan's statistics as to the mortality of different diseases in different periods of the year. The deaths from alcoholic disease are below the mean in February, March, and April, they rise rapidly in May, and, after rising and falling in June, reach their maximum in the third week of July. They then begin to decline until the end of the year, when there is a small rise—due evidently to Christmas festivities.—in the beginning of January. According to Dr. Richardson, the revenue statistics accurately correspond with these mortality returns. The revenue of the nation and the revenue of death, so far as alcohol is concerned, rise and fall together.

THIS kind of scientific legerdemain does very well to amuse Blue Ribbon gatherings, but surely Dr. Richardson might leave it to some one without a scientific reputation. It cannot do science any good, and it may do the cause of abstinence a great deal of harm, to trifle with figures in this way. Dr. Richardson cannot be supposed to be under the delusion that drink is always consumed immediately after it is taxed, or that it always kills, like prussic acid, immediately after it is consumed, or else takes some multiple of twelve months to produce its lethal effect. Nor, surely, can he think that the third week in July is invariably a time of scorching and parching heat, or that thirstiness is the chief cause of drinking, or that summer is a necessary condition of thirstiness. If Dr. Richardson is unhappily the subject of all these delusions, we can understand his line of argument, but so long as he retains amongst the public the reputation of a scientific thinker he ought to be more careful in his statements.

At an inquest held in the East-end, yesterday week, on a poor morphomaniac, a statement was made which, if true, deserves some consideration from the medical moralist. The deceased, a female drunkard with cancer of the gullet, had long been in the habit of going from one doctor to another to have morphia injected, until she had ceased to be known by her proper name, and went everywhere by the name of the drug she lived on. It was her way to pester the medical practitioners whom she visited until they gave her her dose of morphia, to get rid of her. The drug was not necessary for the relief of pain, but, as in all these sad cases, the morphia-hunger was doubtless as agonising to her as that form of nerve-worry which we have agreed to call by the name of pain. No one can fail to pity



such poor wretches, for though there is doubtless in many of these cases a predisposition founded on mental defect, their fate is one which, with injudicious treatment, might befall any of us—which has in our own profession, to everyone's knowledge, wrecked many a career that promised well. Some of our best practitioners have felt this so strongly that the morphia-syringe is now seldom employed by them, and it is beginning to be acknowledged that the cases are very rare in which its use is demanded. But the more difficult question is: What is to be done with the cases in which its use has become almost a necessity of existence? Is one to refuse point-blank to administer to a morbid craving, and to let the patient pass into the hands of others who will be less scrupulous? Ought one to refuse invariably to continue attendance on patients who will not throw aside their syringes and morphia solutions at one's command? In the East-end, apparently, the problem has solved itself by "*reductio ad absurdum*," for surely no doctor with any self-respect can allow himself to be turned into a sort of licensed victualler, to be ever at the call of a tramp's imperious cravings. And yet, from an ethical point of view, it is difficult to distinguish between the practice of the East and that of the West, except that in the one case the patient visits the doctor, and in the other the doctor visits the patient.

THERE seems to be very strong evidence that at Liverpool the police have lighted upon one of those cases of systematic poisoning for gain which crop up every few years, and which, from their invariably tardy discovery, give one much reason to fear that for every such case brought to light there must be many which have remained unsuspected. The history is the same in all. At first the murderer is careful and prudent, employs every precaution to avoid discovery, has no confederates, and waits a long time between each case. Then, as doctor after doctor is taken in, and murder after murder goes undiscovered, he gradually becomes bolder, till at last he appears absolutely reckless, and carries out his designs almost in the light of open day, either from a spirit of bravado the result of continued impunity, or because the fascination of his horrible pursuit is such that he can no more conceal it than one can prevent a sneeze. Every case goes to prove that the safety of the public lies less in the apparatus of death-certificates, coroners' inquests, and directors of public prosecutions, than in the nervous instability of the murderer. A course of poisoning seems to resemble one of gambling; it robs the strongest brain of its coolness. But it is surely not very creditable to science and civilisation that it should invariably be the weakness of the criminal rather than the strength of the detective that at length brings these cases to light. The possibility of them ought to be in the mind of every doctor who has cases as to which he cannot form a definite diagnosis. It may be admitted that there is a strong temptation not to make a stir about a case when the suspicion is only slight, for if it should turn out to be unfounded, or, though correct, cannot be proved to be so in a court of justice, the doctor's position is not likely to be a bed of roses. Then the coroner is anxious to keep down expenses, and the coroner's clerk perhaps finds it pay better to prevent an inquest than to call one. So the interest of all the recognised detectives of such crimes blinds them to their occurrence, and between them all, no doubt, many a poisoner has gone unpunished.

THE following is a list of the most noteworthy papers in the current numbers of the leading foreign medical journals:—*Le Progrès Médical* contains—"Tuberculose Testiculaire et Castration," by M. Monod; "Tumeur Fibreuse de

l'Uterus," by M. Lévêque; and "De la Dermatite Exfoliatrice généralisée," by M. Comby. The *Gazette Médicale de Paris* contains—"De la Doctrine Microbienne et de la Médecine traditionnelle, au point de vue de la Genèse et de la Généralisation du Tubercule et du Cancer," by Dr. F. de Rause; and "Névrite traumatique du Plexus Brachial Droit," by Dr. J. Pozzi. The *Gazette Hebdomadaire* contains—"Contribution à l'Étude du Zona," by M. Ch. Deshayes; and "Trois Cas de Scorbut secondaire," by M. de Beurmann. The *Gazette des Hôpitaux* contains—"Cas remarquable de Délire des Persécutions," by Dr. Legrand du Saulle.

THE *Centralblatt für Klinische Medizin* contains abstracts of papers—by M. Paul Bert, on Prolonged Anæsthesia obtained by means of Protoxide of Nitrogen, and by MM. Chiari and Riehl, on Lupus of the Larynx. The *Centralblatt für die Medicinischen Wissenschaften* presents an original paper on Micrococci in Croupous Pneumonia, by Salvioli and Zäselein; and abstracts, amongst others, of papers—by Bernstein, on the Excitability of the Nerve-end Organs in Muscle; by Maly and Emich, on the Action of the Bile-Acids on Albumen and Peptone; and by Babes, on the Bacilli of Leprosy and Chicken-Cholera. In the *Centralblatt für Chirurgie* appears a paper on the Treatment of Stenosis of the Trachea, after Removal of Goitre; Dr. Kurz, of Florence, brings forward a new dilator for the rectum, urethra, and uterus. In the *Centralblatt für Gynäkologie* is contained a detailed case of Successful Laparotomy in the eighth month of extra-uterine pregnancy, by Dr. Brendel, in Montevideo. In the *Berliner Klinische Wochenschrift*, Dr. Hofmeier discusses the Influence of Diabetes Mellitus on the Female Generative Organs; and a report of an address by Dr. Pohl-Pincus, on Alopecia and the Indurative Processes of Disease in general, also appears. The *Wiener Medizinische Wochenschrift* publishes a successful case of Resection of Stomach by Dr. v. Hacker, and a notice of an Epidemic of Parotitis at Ljubinjé, by Dr. Bettelheim.

THE following books have recently been published:—"Hospital Management: Authorised Report of a Conference on Hospitals," edited by J. L. Clifford Smith; "De la Folie à Double Forme," by Dr. Ambr. E. Mordret—a monograph which received a prize from the Academy of Medicine; "Des Formes diverses d'Epidémies Puerpérales," by Dr. Charles Maygrier; "Die Elektro-Technik in der Praktischen Heilkunde," by R. Lewandowski; "Mittheilungen aus dem Embryologischen Institute der Universität in Wien," by S. L. Schenk, vol. ii., part 3; "Vorlesungen über Pathologie," section iii., part 3, by S. Stricker.

#### LIVERPOOL MEDICAL SOCIETY.

THE first meeting of the Liverpool Medical Institution for the session 1883-84 was held on October 11. The whole suite of rooms was thrown open, and in the upper gallery Dr. Barron showed a number of sections of the human body cut while frozen, with water-colour drawings of the same. The sections were made by Dr. Barron, and the drawings by Mr. J. R. L. Dixon. Mr. Paul showed a collection of skulls that he had prepared for the school museum. The President (Mr. Shadford Walker) opened the session with a few words of welcome. He hoped that the meetings of the Society would be characterised by harmony and goodwill, and that questions exciting to personal feelings would be avoided as far as possible. Dr. Carter then showed some pathological specimens of multiple sarcoma removed from a patient who during life presented some symptoms of Addison's disease, and in whom after death the semilunar ganglia were found



encroached upon by the growth. Dr. Glynn showed drawings of a tumour of the medulla oblongata. The patient had had syphilis fourteen years before the onset of the nervous symptoms. These were partial numbness of the left side of body and of face, flow of saliva, dysphagia, paralysis of the vocal cord on the affected side, sickness and nausea, a very dicrotic pulse, and epileptic attacks whenever the patient was moved. The tumour pressed upon the cord just below the medulla, affecting chiefly the spinal part of the long pneumogastric nucleus. Mr. Puzey then read a short paper on two cases of ligature of the brachial artery for wounds of the palmar arch. In one case, after ligature of the brachial artery, the ulnar was found to pulsate, and hæmorrhage recurred. On tying the vessel the hæmorrhage ceased. In the second case the supposed brachial was ligatured at two points, and the vessel cut between the ligatures. It was then found that the brachial really lay behind this ligatured vessel, which, from the pulse having ceased at the wrist, was found to be an abnormal radial. The brachial was then ligatured, and the case did well. Mr. Puzey advocated less searching for the cut ends of the wounded vessel in the palm of the hand, and an earlier recourse to ligature of the brachial artery. After ligaturing this vessel a search should be made for an abnormal branch, and it should be ascertained that both the radial and ulnar pulsations have ceased. If either vessel still pulsates, that vessel should be ligatured at the wrist. Mr. Banks, Mr. Rushton Parker, and Drs. Macfie, Campbell, Barron, and Alexander all agreed with the general principles enunciated by Mr. Puzey. Mr. Paul said the intermittent bleeding in such cases arose from imperfect division of the vessel and the formation of false aneurysm. In all cases he thought the vessel ought to be found at the bleeding point; and, in his opinion, the brachial artery should never be ligatured for such an injury.

#### THE EDINBURGH UNIVERSITY TERCENTENARY.

On Wednesday next the University of Edinburgh will complete the first three hundred years of its existence. It was founded by a Royal Charter granted by King James VI. in 1582, and the Faculty of Divinity was opened by the first Regent on October 24, 1883; but it was not until after another hundred years that the Medical Faculty, which has now quite overshadowed the others, was started. The Chair of Botany dates from 1676, and those of the Institutes of Medicine and the Practice of Physic from 1685. The Chair of Anatomy was added in 1705, and that of Chemistry in 1713. The medical profession was at first, however, little affected by the training thus provided for its members. The few physicians who were trained received their education abroad. The bulk were apothecaries, who owed to experience the little skill they possessed. Surgeon-barbers were still trusted in their double capacity in all parts of the country. A great change came in 1720 with the appointment of Alexander Monro *primus* as Professor of Anatomy in the University of Edinburgh. He was then only twenty-two years of age; but his learning, his skill, and his intellectual force commanded universal respect and confidence. During the thirty-four years of his tenure of the chair, he gave an immense impetus to the scientific study of medicine in Scotland. His influence was continued by his son, Alexander *secundus*, and his grandson, Alexander *tertius*, both of whom in succession occupied the same chair. The professorship thus remained in the hands of one family for 125 years. It was the first Monro, however, that started the great Medical School of Edinburgh University on its successful career. By-and-by the curriculum was reduced to a system. The Royal Infirmary was founded in 1725, Monro's father, also a physician, being one of the founders, and Monro himself its

first Physician. Four new chairs were added to the Faculty before the close of the century, and the reputation of the school was maintained and extended by William Cullen, John and James Gregory, and Joseph Black. Since the beginning of the present century, five chairs have been added to the Faculty, and the roll of famous Professors has included the names of Alison, Goodsir, Sir James Simpson, Edward Forbes, James Syme, and others whom it is surely unnecessary to name.

#### GARTNER'S DUCTS IN WOMEN.

In a paper published in a recent number of the *Archiv für Gynäkologie*, Dr. J. Kocks, of Bonn, describes certain fine canals which he has been able to find in about 80 per cent. of those women in whom he has searched for them, and which he believes to be the remains of Gartner's ducts. These canals open close to the posterior margin of the meatus urinarius, and a probe of one millimetre (about one twenty-fifth of an inch) in thickness can be passed into them for a distance of from half a centimetre to two centimetres (about one-fifth to four-fifths of an inch). Their orifices are often situated a little distance behind the urethral orifice, so that the canal has to be held open in order to see them; but generally, says Kocks, the openings are to be found at the summit of the little lips of mucous membrane which bound the posterior part of the meatus to right and left. They are generally both present, but one may be absent. Dr. Kocks compares their appearance to that of the lacrimal puncta. They run in the urethro-vaginal septum, and end blindly. They are found most easily in young adults. In the newly born they are relatively larger, but absolutely smaller than in adults. In old women they become obliterated or lessened in size. Dr. Kocks regards them as the homologues of the ejaculatory ducts in the male. In the following number of the same journal, Professor C. Böhm, of Vienna, writes to say that he, like Kocks, has been able to demonstrate the presence of these ducts; and further, that he has seen cases of acute and chronic inflammation of them. Sometimes this inflammation is but part of a similar process affecting the vagina, vulva, and urethra, but sometimes it exists by itself. In the latter case, owing to the presence of redness and swelling of the meatus, discharge of pus from it, and pain on making water, the disease may be taken for gonorrhœa. From this it is to be diagnosed by everting the margins of the meatus, and noticing that the pus issues from the ducts in question. It is to be cured by applications of solid nitrate of silver to the inflamed ducts. Unless proper diagnosis is made, and this treatment employed, the disease may prove obstinate.

#### THE SANITARY CONDITION OF TORQUAY.

THE annual report of the Medical Officer of Health for Torquay (Mr. Paul Q. Karkeek) for the year 1882 is a most satisfactory one in all that regards sanitary matters. During the past twelve months the new sanatorium has been in course of construction, and by this time should be available in the event of any outbreak of infectious disease. Some progress has also been made with the new reservoir, which it is hoped may be completed during the current year. The stock of water for the town will then be three hundred millions of gallons, which will enable the authorities to provide a constant supply, without any anxiety, during the driest of summers. The main drainage system has likewise been completed, by the construction of about four hundred yards of sewer, whilst no opportunity has been lost of inserting ventilators in the drains wherever they were likely to be of service. Constant and systematic inspections of the whole town have been made during the period under notice



and on the whole the condition of the houses may be said to be satisfactory. The labouring classes of Torquay are, Mr. Karkeek remarks, generally speaking, very well housed; and to this fact he attributes, to a great extent, the freedom which the locality enjoys from typhoid fever and other outbreaks of zymotic disease. The number of deaths recorded during the year was 363, equal to an annual death-rate of 14.6 per 1000. This is the lowest number of deaths registered since the year 1874. Amongst visitors, tramps, and others, 62 deaths took place, viz.—phthisis, 21; bronchitis, 8; heart disease, 6; injury, 1; and general diseases, 26. This number, Mr. Karkeek says, is somewhat higher than usual, but in a health-resort like Torquay this must always be a very fluctuating item.

#### CORONERS AT HOME AND ABROAD.

WHILE we have been recently engaged in discussing various details of the "crown's quest law," whether it is necessary to view the body, or what precise proportion of the mortal remains constitutes a body in the coroner's sense of the word, it is interesting to find the *Boston Medical and Surgical Journal* heading a forcible article with the ominous words, "The Coroners must go." From this we learn that in Massachusetts, since 1877, a medical examiner system has been in operation. An official is appointed, who has to examine the dead bodies of persons who "are supposed to have come to their death by illegal means or without the recent attendance of a physician in good standing." Witnesses, one of whom must be a physician, are required to attend this examination. This system for insuring the detection of crime and the protection of public morals is said to work with unexpected smoothness and efficiency. Seeing that the object of an inquest is merely to determine the cause of death, and that, in spite of the coroner's juries' verdicts of manslaughter or murder, conviction and punishment do not necessarily follow, it would certainly seem that we might follow with advantage the Massachusetts system, and, while abolishing our present expensive, cumbrous, and unsatisfactory machinery, substitute for it one as capable of supplying the necessary links for criminal prosecutions, and more likely to avoid derision by keeping clear of the present too frequently fanciful style of coroners' verdict.

#### A TOO HEALTHY CITY.

THE report of Mr. David Davies, the Medical Officer of Health for the city and county of Bristol, touching the sanitary condition of his district during the second quarter of the current year, exhibits a state of affairs which might be considered highly satisfactory. The annual rate of mortality is given as 17.4 per 1000, against 19.2 and 19.9 respectively for the similar quarter of the years 1881 and 1882. This result, Mr. Davies says, is much more favourable than he anticipated; but, considering the many agents detrimental to health, common to Bristol and all other large towns, he is of opinion that the present returns do not indicate the normal rate of mortality for the period; that they are, in fact, too favourable to be permanent. In illustration of this he points out that only ninety-four deaths (or 10.1 per cent.) were those of children over one, but under five years of age, against 167 (or 16.0 per cent.) during the corresponding quarter of the past year. This low mortality he attributes to the comparative immunity of the locality from the principal diseases of the zymotic class. He frankly admits that this improved condition of the district is no proof that vigilant supervision has established a mastery over this dangerous class of diseases; on the contrary, he fears that the present success increases the danger in the future, as, by the saving of so many

lives, there is now a large number of young children in the city who are unprotected from these diseases through not having once suffered from them. Without anticipating evils, Mr. Davies wishes it to be understood that a sudden outbreak of, say, scarlet fever might escape all sanitary control, and spread in a virulent form among the large number of unprotected children now in the city, and it would then have to be admitted that the improved health-condition of Bristol was only temporary, and not of a permanent character. The total deaths during the quarter under notice from zymotic diseases were fifty-five, giving a rate of only 1.0 per 1000; this, Mr. Davies observes, requires no comment, but he is by no means sanguine as to its continuance. Meanwhile, he is to be congratulated on such a successful outcome of his professional labours, even if the same should not prove to be permanent.

#### "THE STEED OF STEEL."

IN his chatty and suggestive article in one of the magazines, Dr. B. W. Richardson has lauded the "cycle" as a means of healthful exercise, but he has said little about it as a means of locomotion from the doctor's point of view. The time is probably still far distant when it may be deemed generally consistent with the dignity of the healing art for the medical attendant to alight, red-hot and in athletic garb, at his patient's door. Even in the level midlands, and in rural districts, the "cycle" is still only the recreation of the few, and the means of professional locomotion of almost none, of our medical fraternity. What may be the outcome of the future, by what means the powers of electricity may be made to subserve the exigencies of wide-spreading practice, may as yet be only guessed at by the many, while confidently anticipated by the scientist. For the present, the cool head and hand, the dress of ordinary life, and the conservation of medical energy by the employment of the horse's (not the doctor's) muscles as a motive force, are as customary as desirable. But the "cycle" may be a good friend to the surgeon, notwithstanding, and may facilitate practice in one way, if not in another. It would be interesting to collect and tabulate the number and variety of accidents met with in the use of the machine. Such a catalogue would surely cause the hunting field, as a source of danger and injury, to sink into extreme insignificance. From one country town, in one week, we hear of a fracture of metatarsal bones, a double Colles' fracture, a strain of the recti muscles, and a badly cut head, under simultaneous treatment. This excludes another case where the refractory tricycle swerved from the hands of an inexperienced rider into a team of dray-horses, who promptly reduced it into whatever may be the ferreous equivalent of "matchwood," the rider escaping, as by a miracle, with a general shaking and some bruises. From a surgical or financial point of view, we may conclude the "cycle" is not altogether such a "nuisance" as the doctors, with the rest of the driving and riding public, are apt so emphatically to affirm.

#### ANTHROPOMETRY.

SOME interesting facts were made public at the recent meeting of the British Association, as the result of the labours of the Anthropometric Committee, which was appointed in 1875, to collect and analyse information upon the physical character of inhabitants of the British Isles. Statistics have been collected, relating to 53,000 individuals of both sexes; and the results of the labours of the Committee are embodied in several important and interesting tables. The average height of adult males in Scotland is 68.71 in., in Ireland 67.90, in England 67.36, and in Wales 66.66. The weight of the average Scotchman is 165.3 lbs., of the Welsh-



man 158·3, the Englishman 155, and of the Irishman 154 lbs. A Scotchman weighs 2·40 lbs. per inch, a Welshman 2·37, an Englishman 2·30, and an Irishman 2·27 lbs. One table deals with the relative stature, weight, and strength of arm of adult English males and females. The average stature of males is 67·36 in., and of females 62·65 in.—the weight of the former 155·0, and of the latter 122·8 lbs. Inhabitants of northern are taller in stature than those of other climates. Taking the British people as a nation, and comparing with 91 peoples, the average stature of the Britisher is 2½ in. more than all except Polynesians and New Zealanders, who average 1½ in. more than the Britisher. It is interesting to know that the tallest Englishmen are those of the professional classes. The ratio of weight to stature is in trained athletes 2·10 lbs., and in ordinary individuals 2·32 lbs. per inch. A trained athlete of 5 ft. 7 in. should therefore weigh 10 st., and an untrained man of the same height 11 st. Some very interesting measurements concerning children are tabulated. At birth males are ½ in. longer and 3 oz. heavier than females—19·53 to 19·32 in., and 7·12 lbs. to 6·94 lbs. respectively. Growth in children is most rapid during the first five years, and is about the same in rate in both sexes. From 5 to 10, boys grow more rapidly than girls. From 10 to 15, girls beat boys, and at 11½ to 14½ years of age are taller than boys, and at 12½ to 15½ heavier. This is attributed to the earlier accession of puberty in girls. From 15 to 20, boys again take the lead, growing at first rapidly, then more slowly up to 23. Girls attain full stature at 20, boys not till 23. The strength of both sexes increases up to 30, and then declines to 60.

#### AN IDEAL DRINK.

AFTER all has been said and done that can be said and done in the cause of total abstinence and on the subject of alcoholic beverages, after the fever and fashion of this our day has changed and subsided, we believe that *beer* will still be found to be the national drink of the future, as it has been of the past, in this country. The reason of this is that it is, in fact, economically and physiologically a drink combining so many useful qualities that nothing, it is clear, can be provided for the price which is at all likely to supersede it. Tea and coffee, if universally drunk—solutions of tannin with a small and varying amount of more or less harmful alkaloid—would cause such an increase of national dyspepsia and nervous troubles that a new crusade, with the Dean of Bangor perhaps as its Peter the Hermit, would soon drive them from their position as national beverages. Neither they nor milk can be provided *good* in sufficient quantity and at the price required; and milk is not always tolerated by grown-up stomachs. Oatmeal-and-water will soon pall upon the most enthusiastic palate. Sweet syrups or acid effervescent can scarcely be habitually consumed without derangement of the gastric functions. And as for water—the best of drinks when at its best—sanitation will have to make very long strides indeed before it can be regarded as anything but the most perilous of thirst-quenchers. If a committee of unprejudiced scientific men had been appointed to compound and recommend a perfectly aseptic drink, combining the qualities of nutrition and palatability, with such small amount of alcohol as should act as a preservative to the fluid itself, an aid to digestion, and a mild and innocuous stimulant to the whole system, it is probably upon a light, bitter beer, brewed from good malt and hops, that the seal of their approval would be placed. Formed, as it is, from wholesome and indigenous materials, easily concocted, and at a small cost, tonic and nutritious, harmless except in almost impossible quantity, it is just such an ideal drink as we should pine for if we did not already possess it. All ques-

tions of adulterated, fortified, or dishonestly compounded malt liquor, and all question of injury by excess, in this as in every other aliment, are beside the present issue.

#### THE ETIOLOGY OF PUERPERAL INVERSION OF THE UTERUS.

IN a paper by Fürst, published in a recent number of the *Archiv für Gynäkologie*, the author describes the following as the conditions which predispose to the occurrence of inversion of the uterus in the puerperal state:—1. Feebleness of uterine action as a result of prolonged labour, cases in which delivery is often completed by the forceps. Out of 148 cases collected by Lee, in twenty the labour was exceptionally slow, and in twenty-five very quick. 2. Attachment of the placenta to the fundus uteri. Considering the large part which want of tone in the uterine muscular fibre plays in producing, or rather in permitting, inversion of the organ, and having regard to the exceptional presence of this atony in primiparæ, Dr. Fürst is of opinion that the accident occurs more frequently in first labours than would be expected—a fact which he attributes to the greater frequency of fundal implantation of the placenta in these cases, as shown by the comparative rarity of placenta prævia in primiparæ. 3. Comparative rigidity of the vagina, opposing descent of the uterus in response to downward pressure on it, and thus favouring the production of inversion by a force acting on the fundus, this being a condition also met with chiefly in primiparæ. According to Schatz, the opposite state, laxity of the vagina, is one of the conditions which bring about inversion. 4. Narrowness of the vulva, preventing the easy exit of blood, so leading to distension of the uterus, in the sudden emptying of which inversion is likely to occur. Adhesion of the placenta is known to be frequently associated with inversion. Thus, out of Lee's 148 cases, in sixty-seven the placenta was attached to the inverted organ, its manual removal being required in fifty-three of them.

#### THE NEW GOVAN COMBINATION FEVER HOSPITAL.

THIS institution, which has been upwards of a year in building, is now completed, and will be a great adjunct to the other hospitals connected with Glasgow. The Hospital has been erected, at the request of the local authorities of Govan, Kinning Park, Partick, and Hillhead, to meet the growing want of these districts. It is a handsome building, the cost of which is estimated at £12,000, and covers an area of ground extending over three acres. The building consists of five separate blocks, comprising a large central administrative department two storeys in height, containing accommodation for resident medical officer, matron, nurses, etc., with reception-room for visitors, and ample kitchen quarters. In addition, there are three large separate pavilions of one storey each, which are capable of accommodating in all fifty fever or small-pox patients, and the cubic space allotted to each is of a very ample kind. Each pavilion is provided with separate accommodation for day and night nurse, and is supplied with the latest improvements in sanitary appliances. The remaining block contains disinfecting and drying rooms, mortuary, washing and coach houses, and other offices. The whole building is enclosed by palings seven feet high, and a handsome stone parapet and iron railings.

#### SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE usual quarterly court of the above Society was held at the rooms of the Royal Medical and Chirurgical Society on Wednesday, October 10, at 5 p.m. The President (Sir George Burrows, Bart.) was in the chair. The attendance



of the directors was unusually large. One new member was elected. Applications for grants were considered from fifty-seven widows, five orphans, and three recipients of relief from the Copeland Fund, and it was resolved to recommend that a sum of £1217 should be distributed among them in January next. There were no fresh applications for relief. The Christmas present, which has now been given for many years, was again voted, the funds admitting the same sum as last year to be given to the widows and orphans now in receipt of grants—viz., £5 to each widow, £2 to each orphan, and £4 to the three orphans on the Copeland Fund—in all a sum of £307.

#### SMALL-POX STATISTICS FOR ISLINGTON IN 1882.

DR. CHARLES MEYMOTT TIDY, the Medical Officer of Health for the parish of St. Mary, Islington, in his annual report on the sanitary condition of the locality for the year 1882, makes the following remarks upon small-pox incidence in that portion of London. The epidemic of small-pox, he says, which had gradually subsided during the last three months of 1881, did not entirely disappear with the advent of 1882, but lingered in that neighbourhood throughout the whole of the year. During 1882, 142 cases of this disease were recorded, against 797 in the previous year; the monthly numbers commencing with 11, and increasing to 43 in August and 38 in September, and diminishing to 1 in December last. It is only right to add, he remarks, that this dreaded scourge has been very quiescent during the present year, only 10 cases having been reported during the first six months. Such fortunate immunity, however, he reminds the authorities, is often followed by increased activity, as is shown by the previous history of this disease. The terrible outbreak of 1871, with its 386 deaths in Islington alone, was preceded by a similarly peaceful lull. He therefore counsels an attitude of constant watchfulness, in order that the first symptoms of prevalence may be met by due precautions. In concluding his remarks he observes: "Knowing as we do from long experience the treacherous character of this disease, its insidious working in some secret focus, and the swiftness with which it subsequently appears and spreads, it is no small source of satisfaction to know that the Islington Small-pox Camp Hospital premises remain intact. The tents and stores being apparently in good condition, we should, in any sudden emergency, have the immense advantage of being ready at a moment's notice to face the enemy with the best of all weapons—a sufficiency of hospital accommodation, so much needed at the commencement of an outbreak by the sufferers first attacked."

#### DR. ROCHARD'S SUPPOSED ASSASSIN.

In a paper inserted in the *Gazette des Hôpitaux* (October 11), Dr. Legrand du Saulle gives an account of a remarkable case of *délire des persécutions*, which is especially interesting inasmuch as there is every reason to suppose that the subject of it is the author of the attempted assassination of Dr. Rochard, the Medical Director of the French Marine, which has excited so painful a sensation in Paris. It will be recollected that Dr. Rochard, while returning from the Office of Marine to his own house on the evening of September 26, was shot in the back by an unknown hand. It was supposed that he had been shot in mistake for some one else, and this seems to have been the case. A man, Jean Chabert by name, and forty-four years of age, gave himself up (October 6) to the magistrate entrusted with the case, who at once placed him under Dr. Legrand du Saulle's care in order that his mental condition should be investigated. It seems that the man, after following various trades, and being somewhat addicted to drink, obtained admission to a hospital in 1878 under the erroneous

allegation that he had been poisoned; and about the same time he conceived a violent antipathy to a *maître d'hôtel*, at whose hands, as well as various other persons, he conceived himself the victim of various persecutions. Placed in an asylum, he considerably improved, but on his discharge his delusions returned, and he was again admitted into the asylum of Ville-Evrard, whence he contrived to escape. For a considerable time he remained quiet, and worked for his living, but at the end of September resumed his intemperate habits and became dominated by the idea of persecution. He wandered about Paris for some days without food, and carrying a revolver, and, standing out of the rain on the evening of September 26, he fired at a gentleman who passed, the ball striking him on the back, just below the umbrella he was holding. Learning from the newspapers that it was Dr. Rochard whom he had shot, he addressed an anonymous letter to him, accusing the *maître d'hôtel*, his former supposed persecutor, of the crime. He afterwards, as already stated, denounced himself to the magistrate. Although, as Dr. Legrand observes, he is most probably the author of the crime, yet no one saw him commit it. His is not one of those singular dispositions of mind which lead to the avowal of imaginary crimes, and all seems to concur in demonstrating the reality of this sad action, but still the absence of all witnesses imposes a certain reserve.

#### A CITY OF MEDICAL SOCIETIES.

THE *New York Medical Record* of September 22 applies this designation to New York, stating that there are in New York city twenty-seven registered working medical societies; besides two societies devoted to public health, one to general science, one to microscopy, and two to veterinary medicine. There are moreover four *alumni* associations. The majority of the societies are limited in membership, and hold their meetings at the houses of the members. Of the now existing societies not half a dozen existed before 1860. "While some of these societies are weak and inactive, this cannot be said of the great majority, and the general effect of the numerous organisations has been most excellent. In no city can there be found so many physicians who are on such amicable terms with each other, nor does any other city produce so many contributors to medical science."

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the fortieth week of 1883, terminating October 4, was 937 (539 males and 398 females), and of these there were from typhoid fever 39, small-pox 4, measles 6, scarlatina 1, pertussis 19, diphtheria 24, dysentery 1, erysipelas 5, and puerperal infections 2. There were also 37 deaths from acute and tubercular meningitis, 188 from phthisis, 19 from acute bronchitis, 44 from pneumonia, 111 from infantile athrepsia (43 of the infants having been wholly or partially suckled), and 36 violent deaths (28 males and 8 females). The mortality of Paris, although increased upon the exceptional amount of last week, is still low, that from epidemic diseases continuing nearly stationary. The autumnal recrudescence of typhoid fever usually observed has not commenced. The births for the week amounted to 1202, viz., 604 males (451 legitimate and 153 illegitimate) and 598 females (412 legitimate and 186 illegitimate); 95 infants were either born dead or died within twenty-four hours, viz., 60 males (40 legitimate and 20 illegitimate) and 35 females (23 legitimate and 12 illegitimate).

#### A PROVIDENTIAL ACCIDENT.

A PATIENT with locomotor ataxy consulted Dr. W. A. Hammond, of New York, who advised him to go to bed, and remain there for at least six months. The patient said it



was impossible for him to go to bed, and that if that were necessary he must give up treatment. On leaving the consulting-room, however, he luckily slipped and broke his thigh, and, being taken home, he completed his good fortune by calling in an "irregular practitioner," who kept him in bed for a year. At the end of that time the patient arose, cured not only of his fracture, but of his ataxy also, and has remained well ever since.

#### TREATMENT OF THE INSANE IN SPAIN.

SPAIN is sadly in want of a Commission in Lunacy like our own. The following state of things is described in the *Journal of Nervous and Mental Diseases* by Dr. Seguin, the well-known American alienist, as existing in the asylum at Valencia:—"Camisoles and ordinary muffs, wristlets, etc., were employed, but there was something worse. This was an iron belt, made in two segments connected behind by a hinge, and closing in front by a nut and screw; the belt is two inches wide and one-eighth of an inch thick. On either side, screwed by a rivet, is a single oval chain link, two inches long, supporting a manacle or bracelet of the same iron as the belt (a trifle less wide), opening with two hinges, and closed also by a screw and nut. The bracelets give play for the arms (in semi-flexion, as the wrists are kept at waist) only on a radius of some three inches. And to cap the climax, these iron parts are not lined or protected in any way. The apparatus weighs from four to five pounds. Many of these were in use on male and female patients, and there were others hung up in a store-room. During our visit a number of the patients came forward, half holding out their hands, begging piteously to be released. The good doctor smilingly replied, 'Yes, by-and-by,' or 'Yes, to-morrow.' The most astounding part of this barbarity was Dr. Company's satisfaction with the irons, and his assurance that they were 'so secure.' He showed me how they were managed, and took considerable trouble to procure me permission from the general authorities to take one away with me 'as a model,' which he supposed I would introduce to a grateful circle of alienists in America. But the worst thing of all—a thing almost incredible at the present day—was the way in which the filthy demented patients were *herded* (and that is a mild word). In one long, narrow, dismal room, I found between thirty and forty women squatting nearly naked on a wooden platform, about six by twenty-five feet, and raised one foot from the floor. On this platform was straw, and on this sat, or kneeled, or sprawled, or squatted these women, with only a coarse shift, open in all directions, exposing to view wrinkled and dirty arms, backs, bosoms, etc. Some were howling, others moaning, some singing, many rocking to and fro. They were so crowded as almost to touch one another. On the other side of the same hall, a yard away perhaps, was another wooden, raised, sloping platform, extending the whole length of the room, covered with straw and corn husks. Upon this the wretches were to lie down side by side to pass the night. A bad-looking man had charge of this crowd, assisting a woman. No doubt sometimes extra muscular strength was required. The filthy male patients were treated in much the same manner, only they were allowed to go about their 'patio,' some with irons on. They, like the women, had almost no clothing, and, like them, they slept promiscuously on straw. In these and other departments I noticed patients with bare extremities visibly suffering from the cold; it was a damp, chilly air, and I was glad of my winter underclothing and a heavy autumn overcoat. Dr. Company said of these unfortunates, in a half apologetic way, that they were perfectly demented and unconscious. He added that restraint was always ordered by himself or his assistants."

#### THE HOSPITAL FOR WOMEN.

ON Thursday last, Dr. Heywood Smith, after some introductory remarks from Dr. Protheroe Smith, commenced a course of clinical lectures to be delivered on alternate Thursdays, at 3.30 p.m., in the theatre of the Hospital. His subject is Cervicitis. The first lecture was occupied chiefly with pathology, and some of the causes of the malady; the next lecture (October 25) will deal with symptoms and signs; and the third mainly with treatment. He will be followed by Dr. Carter, Dr. R. T. Smith, and Mr. Reeves. Practitioners are welcome on the presentation of their card.

#### MEDICAL WOMEN IN INDIA.

THE education and training of medical women for India was first mooted in Great Britain. In India it was taken up in an unofficial manner by Drs. Corbyn, Tomkyns, and Lock, of the Bengal Army, as early as 1867; and in 1872, Surgeon-General Edward Balfour submitted the subject to the Madras Government, by which it was adopted. Mr. E. Balfour, a few months since, gave an elaborate account of the movement from its initiation in a letter to the National Indian Association, which showed that during the past thirty years considerable attention had been given to the training of women in Madras as midwives and nurses, and the Government in 1854 granted them salaries. The prejudices of the native population against the movement were, however, so strong that it made but slow progress amongst them. An impetus seems lately to have been given to the study of medicine by native women of India, and several have entered the medical schools for that purpose. Moreover, the movement is rapidly increasing in other foreign nations, under official sanction.

#### BACILLUS IN CONSUMPTION.

DR. HURD's remarks on "the germicide treatment" of Consumption (*Boston Medical and Surgical Journal*, September 20) will be most unwelcome to physicians who have been anxious to treat consumption on antiseptic principles. While fully admitting the presence of the bacillus, Dr. Hurd says there is no evidence that inhalations, sprays, atomisations, or fumigations have any efficacy in destroying the micro-organisms, whose multiplication and whose ravages are supposed to be such important *secondary* factors in the disease. He regards the constitutional diathesis, which allows of the growth of the bacillus, as the primary factor, and declares emphatically that if this be suitable there is no direct medication known to science which will prevent the development, growth, and multiplication of the parasite.

#### THE "EDINBURGH CLINICAL AND PATHOLOGICAL JOURNAL."

OF the multiplication of new medical periodicals there is no end, and a fresh addition to their already overcrowded ranks has just been made, in the form of a somewhat thin journal, intended to be essentially, clinical and pathological, and published in Edinburgh under the editorship of Drs. Graham Brown, Cathcart, and Berry Hart. This new-comer fills no gap, supplies no want, and has no distinctive features; and we venture to predict for it a brief and abortive career. The editors express their surprise that Scotland, which possesses so many schools of medicine of acknowledged excellence, should have remained so long without a weekly organ in which the views of the profession might be fittingly represented, and the busy practitioner kept *au courant* with the advances of medical science. But Scotland and the medical profession in that part of the kingdom have not, perhaps, been left in the destitute and profoundly ignorant state which the conductors of this fresh lamp of enlightenment imagine, for



the great national organs of professional opinion and medical science, published in London, have always bestowed a fully fair share of attention on Scotch medical affairs, and have weekly conveyed to practitioners north of the Tweed complete information as to every advance in the science and art of medicine, not only in the Scotch schools, but in the schools of the world. No more mischievous notion could be indoctrinated into the mind of the profession in Scotland than that of home-rule in medicine; and no more unfortunate habit could Scotch practitioners fall into than that of only interchanging their experiences with their immediate neighbours. Provincialism is fatal to true science. The great social forces and changes that have made London the sole literary centre of the three kingdoms are operative in the case of medical literature, and it will be in vain for the most competent editors to contend against these, and to attempt to carry on a really first-class journal anywhere but in the metropolis. Writers in this new magazine will have the satisfaction of knowing that they have an audience, fit perhaps, but few most undoubtedly, and that their lucubrations are read by tens, where they might have been read by thousands if contributed to more catholic and old-established periodicals. And readers of it may console themselves with the reflection, that if they are somewhat narrowing their minds, they are at any rate encouraging native produce. Existing medical journals provide the amplest facilities for the publication of everything that is worth making known, and local and ephemeral fly-sheets are simply hurtful, by hiding away, in inaccessible corners, observations and opinions that ought to pass current throughout the land. Comparatively few medical men have opportunities of visiting the great libraries where all medical papers may be consulted, and still fewer are in a position to lavish sixpences on small morsels of medical literature like the *Edinburgh Clinical and Pathological Journal*, which is rounded off in sixteen octavo pages. The contents of the first number of this journal cannot be said to be above average merit.

#### THE COCOANUT AS A FOOD.

THE *Fiji Times*, in a recent article on the immense utility of the cocoanut as food rations, and the valuable qualities which it possesses for sustaining nutrition, narrates the following instance of its use as food:—A vessel left San Francisco with 400 passengers for Sydney, and in consequence of running short of stores had to put in at Samsa, where a large quantity of cocoanuts were obtained. During the remainder of the passage—for, through stress of weather, the vessel only reached Sydney after a perilous journey of eighty days—provisions ran short, and men, women, and children were fed only upon cocoanuts, being at last reduced to one per diem for each adult. Notwithstanding the diet, not a life was lost, and not a single case of sickness occurred, all the passengers landing in a healthy and well-nourished condition.

THE Chair of Anatomy in the University of Berlin passes, with the commencement of the present session, from the hands of Professor Reichert into those of Professor Waldeyer, formerly Professor of Anatomy and Embryology at Strasburg.

THE testimonial to Professor Bentley on his retirement from the post of Dean of the Medical Faculty in King's College will be formally presented to him on October 24, at half-past four, by the Rev. Canon Barry, in the large theatre of the College. The testimonial will consist of an illuminated album containing an address and a list of the subscribers, together with a purse.

A SPECIAL private clinic will shortly be established in Berlin for the reception and study of cases of skin diseases and syphilis, under the direction of Dr. Lassar, who has hitherto given instruction, in a smaller field of action, as Docent, in the University. This clinic will doubtless be appreciated by foreign students in search of special knowledge.

THE lectures of the new session commenced in the University of Vienna on the 15th inst. During the vacation many of the lecture-rooms have been greatly improved and added to. The new Pathological Institute is expected to be completed in the course of the next few months. A second clinic for Ophthalmology is about to be established in the Vienna School, under the professorship of Dr. E. Jäger von Jaxthal, hitherto one of the Extraordinary Professors.

WE understand that the Committee of Management of the Farringdon Dispensary have just established an ophthalmic department at this institution, and that Mr. Henry Juler, F.R.C.S., of St. Mary's and the Westminster Ophthalmic Hospitals, has been appointed surgeon to the department. There were more than 37,000 attendances of patients last year at this Dispensary, and the work is rapidly increasing. In consequence of this increase, and also with the view of separating more completely the medical from the surgical cases, an additional physician is to be appointed.

At the request of the Collective Investigation Committee of the Manchester district, Mr. Jonathan Hutchinson has promised to deliver an address at the Owens College on Thursday next, October 25, at 4.15 p.m. Dr. William Roberts, F.R.S., will preside over the meeting, and all members of the profession are invited to attend. We may safely anticipate a most interesting address from the distinguished orator, and we expect that a very large number of the profession residing in the neighbourhood will avail themselves of this opportunity of hearing Mr. Hutchinson on Collectivism as applied to Medicine.

MR. GREENWOOD, the "Amateur Casual," will have to look to his laurels, for his exploit in passing himself off as a tramp for a single night has been put quite in the shade by an American reporter, who had himself committed to the workhouse as a pauper, and there shammed insanity in order to get transferred to the neighbouring lunatic asylum, in which abuses were said to exist. He was not only successful in obtaining his transference, but actually resided in the asylum for nearly six months without detection! It is difficult to believe that the authorities were altogether without excuse in detaining him.

DR. F. BERTHIER, of Aix-les-Bains, whose premature decease at the early age of thirty-six has been a source of regret to his many friends in England, died from the results of typhoid fever—one of the few cases of the disease which have occurred at Aix this season. He was taken ill while the Princess Beatrice was still under his care, and for the last few days of her stay in Aix was unable to visit her. The fever ran a comparatively mild course, but was followed by parotid abscess, which, much against the advice of his friends, he insisted on opening himself. Erysipelas followed, and led to the fatal result. Dr. Berthier was well known in London, where he studied for a time after taking his degree in Paris. He spoke English fluently, was versed in English methods of practice, and will be greatly missed not only by his patients, but by the many London practitioners who were in the habit of placing patients under his care.



## A SATISFACTORY STOCK-TAKING.

THE forty-fourth annual Report of the Registrar-General of Births, Deaths, and Marriages in England and Wales during the year 1881, which has recently been published, is a document highly gratifying to the medical profession, to whose efforts in the past its satisfactory character is mainly due. The Report is, according to custom, addressed to the President of the Local Government Board, and seeks to direct attention to the features considered important in the vital statistics of the year. Under the head of marriages, many of the peculiarities of the people of Great Britain are noticed, especially the objection which exists both in England and Scotland to marrying in the month of May. The total number of births registered in 1881 is shown to have been 883,642, a proportion of 33·9 to each 1000 persons living. This was the lowest birth-rate recorded since 1858, when the rate was 33·7. At that period, however, it has to be remembered, the registration of births was not compulsory, and doubtless a considerable number were omitted from the reckoning. The birth-rate was at its maximum in 1876, and fell uninterruptedly from that date, year by year, in natural accordance with a corresponding decline in the marriage-rate. The illegitimate births were in the proportion of 4·9 to every 100 children born, a higher proportion than any recorded for six years previously, but this is to be explained, not by any increase in the illegitimate births, but by a falling off in the legitimate births owing to the decline in marriages. Thus the proportion of illegitimate births to every 1000 persons living remained at the same point as it had been for the six preceding years (*viz.*, 1·7), and it is satisfactory to note, the Report adds, that, notwithstanding the long-continued depression in the marriage-rate, the illegitimate-birth-rate has remained unaffected throughout, and at its lowest level. The deaths registered in 1881 numbered 491,935, and, notwithstanding the increased population, were absolutely fewer than in any single one of the twelve preceding years. The death-rate was 18·9 per 1000 living; a rate which was no less than 7 per cent. lower than the lowest recorded in any previous year since civil registration began. In 1877, when the lowest previous death-rate occurred, one person died out of every forty-nine living; in 1881 only one died out of every fifty-three of the population. The Registrar-General is of opinion that there is nothing in the series of annual reports issued by his office that is brought out more distinctly and unmistakably than the wonderful effect which the sanitary operations of the last decade have had in saving life. The Public Health Act came into operation in 1872. The average annual death-rate for the immediately preceding ten years—1862-71—had been 22·6, and there were no indications of any tendency of the rate to fall lower. Indeed, in 1871, the final year of that period, the rate was exactly the average, *viz.*, 22·6. The Act in question came into force, and at once the rate began to fall, and continued to fall year by year with almost unbroken regularity, until in 1881 it was, as previously stated, not more than 18·9. Had this fall in the death-rate been limited to a single year, or to two years, or even to three, the Report adds, it might have been argued by sceptical persons that the improvement was due to a succession of seasons favourable to health, or to other causes unconnected with sanitary administration, and that the setting-in of the fall coincidently with the coming into operation of public health measures was no more than casual; but in face of a fall lasting for ten years in succession, and increasing each year in amount, no one can seriously maintain such a position. The Registrar-General is of opinion that the saving effected in life was the direct product of the large sums of money expended in sanitary improvements; and to show what has been the return for so much capital expended, he compares the two decades prior and subsequent to the passing of the Public Health Act, and arrives at the result that 92,000 lives at least have been saved, whilst, speaking in round numbers, there must have been 500,000 fewer cases of illness. One death out of every sixteen, the Report says, fell into the class of ill-defined and not specified causes; this was, however, a considerable improvement upon the previous decade. As, moreover, the improvement in the statement of causes has been progressive for many years, it is hoped that this

unsatisfactory class will eventually be reduced to very narrow limits. During the year 1881 the causes of 90·4 per cent. of the total deaths were certified by registered medical practitioners, and 5·5 per cent. were certified by coroners, leaving 4·1 per cent. uncertified. The proportion of uncertified deaths varied considerably in different parts of England and Wales. In the metropolis the proportion did not exceed 1·3 per cent. Excluding the metropolitan counties of Middlesex and Surrey, the percentage did not exceed 0·8 in Wiltshire, and 1·7 in Hampshire, while it ranged upwards to 6·7 in Huntingdonshire, 7·0 in Cornwall, 7·2 in Durham, and 7·5 in Herefordshire. In Wales the proportion was 11·0 per cent. The return of 4·1 per cent. of these deaths is just sufficient to mark a slight decline on the two preceding years, when the figures were—1879, 4·7; and 1880, 4·3 per cent.

## HOSPITAL ACCOMMODATION FOR OFFICERS.

A GENERAL Order has been issued, notifying, for the information of officers of the Army, that hospital accommodation for officers is provided at various home and foreign stations. We acknowledge the boon, and have no intention of looking the gift horse in the mouth, nor any desire to criticise the action of the War Office. Sick officers once admitted into hospital will have to pay "stoppages," amounting in time of peace to 2s. 6d. per diem, or 1s. in time of war. The stoppage may be too much or too little; but that is not the matter which interests us. The point to which we wish to draw attention lies concentrated in one little word, and on it hangs a great deal. Let us quote the paragraph. "Sick officers, on the recommendation of a medical board, may be admitted for treatment into military hospitals where special accommodation has been authorised, and on payment of the regulated stoppages." The reader will notice it is *may*—not must, nor shall. We believe it has for ages been held that a British officer is entitled to treatment *in his own quarters*. As a matter of course, such a privilege allows of an amount of liberty which could not be permitted in hospitals improvised on the battle-field, or even in "base" hospitals; and it is curious to observe, in the evidence given before Lord Morley's Committee, that many officers never seemed to imagine for a moment that hospital discipline could affect them for a single instant longer than *they chose* to submit to it. Our readers may remember some curious illustrations of this independence in the story of the Egyptian campaign. One officer acknowledged that he walked in and out of hospital just as it suited him, and refused to remain for treatment on board the *Helicon* when he saw a chance of better quarters elsewhere. A private soldier who had so behaved would undoubtedly have been made a prisoner, and on recovery would have been tried by court-martial; but, for anything we can see, the officer in question was quite within his rights. He was entitled to be treated in his own quarters, and there the authority of the doctor is greatly limited. Advice may be given, but cannot be enforced, and all rules and regulations with regard to diet may be obeyed or neglected at the patient's choice. A doctor can say little more than, "If I were you, my dear fellow, I wouldn't touch solid meat, and pray on no account take wine or beer." As an officer observed to the Committee, when a patient "sees delicacies under his nose" it is hard to refrain, when he knows, or thinks he knows, that they would do him good. With the officer in quarters it is a *matter of choice* whether he obey the doctor or not. As for the doctor enforcing an order with regard to diet, the sick officer in quarters scouts the idea where there is a divided opinion; and when the patient and the doctor are at issue as to whether the former should, for instance, have champagne or not, the combatant opinion is that "the authorities ought to lay down the rule in the matter"! We cannot help thinking that some of the complaints made by combatant officers with regard to their medical treatment in Egypt arose from the belief that doctors were invading the *privileges* of combatant officers by attempting to control their personal habits when they were admitted into hospital. To some it must have appeared that the doctors had no power



to exercise control at all, and that if accident made it necessary for an officer to go into hospital, then the hospital should be turned into quarters as much as possible. We do not think this theory of the combatant officers is groundless, for it is based upon a supposed *right* to be treated in quarters, and to be treated not by one in authority, but by a gentleman who is professionally employed to give advice, but not to enforce orders. Of course, the combatant officer would allow the "authorities" to interfere, but he does not consider the medical officer an *authority* at all. In time of peace we suppose that some licence must be allowed to combatants. Perhaps it is not often abused, although we have known cases where "the authorities" have had to interfere with a strong hand, and remove officers from their own quarters to the military hospital, when it was clearly proved that the patients were too utterly contemptuous of medical advice. And we may here remark that combatant opinion, in the few cases where the authorities have interfered, was dead against such authority; and it was openly said in one case, which occurred in India, that such a step could never have been taken in England. But, although we would not interfere with treatment in quarters in peace time, we gladly see that when occasion arises the sick officer *may* obtain admission into a military hospital; we consider, however, that in time of war the right to be treated in quarters should be abolished, and, when the indulgence is conceded, it should be as a favour and after due consideration. The permission to be treated out of hospital should be the exception to the rule which should prevail in war, that every man, officer or soldier, should be in hospital or at duty. Nothing but confusion can arise from officers absenting themselves at their own will from their men while a campaign is going on. They are on the "muster roll," sick or well, and have no right to be absent without leave. It seems that at present it is not necessary for officers to ask permission to absent themselves from military hospitals, and, should they ask, it is no crime to take the leave which has been refused by doctors. We would gladly see separate hospital accommodation provided for officers in every campaign; but where circumstances render this impossible, we should prefer to see officers, as a matter of duty, sharing the hospital accommodation with their humbler comrades. Officers and men share the same rations, the same hardships on the march, and the same dangers in the fight. A wound or illness relieves an officer from active duty, but not from all military obligations. He can set a good example in the hospital wards as well as on parade or on the battle-field, and until the campaign is over he is not free to study his own ease and convenience. We hope some day that treatment *out* of hospital may be the exception and not the rule, and be granted by a board as a boon, just as treatment *in* hospital is conceded as a favour now.

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### DR. PAGE ON SCARLATINA IN THE WISBECH RURAL SANITARY DISTRICT.

THE Registrar-General's returns for the first, second, and third quarters of 1882 showing a sustained and fatal prevalence of scarlatina in the Wisbech Rural Sanitary District, and complaint being made by the inhabitants of one of the affected localities to the Local Government Board as to the inefficiency of the measures taken by the Sanitary Authority for checking the spread of the disease, Dr. David Page was instructed, early in the present year, to report on the general sanitary condition of the district. Before proceeding to consider Dr. Page's report, we have again to draw attention to the fact that within a very few months the Local Government Board officials have been called upon to investigate unwonted prevalences of diphtheria, scarlet fever, etc., in several sanitary districts of the Fen country adjoining the seaboard of the Wash, and in each instance it is to be gathered, from the reports rendered, that the peculiar formation of the soil in that part of England is especially favourable to the spread of pollution by means of defective sewerage arrangements, and careless disposal of slop refuse. In the present instance, Dr. Page says, fen-land is simply

the silted up and still silting up coast-line of the Wash; the privies are constructed on the "vault" system, the avowed design of the arrangement being to allow accumulation of excrement over a long period, and soakage of the liquid contents into the surrounding soil. The chief source of water-supply is rain-water, chiefly caught on roofs, and stored in cisterns sunk in the yard behind the houses, constructed of cemented brick-work. But the proximity of these cisterns to the filth receptacles is, Dr. Page observes, highly dangerous, and the cemented brickwork is scarcely a safeguard against percolation from the surrounding polluted soil. There is, moreover, a risk of direct entrance of pollution by the reckless practice of throwing slops upon the ground in their vicinity. From the beginning of the scarlatinal outbreak in November, 1881, until January of the present year, there had been, Dr. Page ascertained from the lists furnished by medical practitioners in the neighbourhood, 280 cases in 107 households, with 44 deaths. But this apparently high mortality is to be explained by the fact that numerous cases not only did not come within the cognisance of the Medical Officer of Health, but were never even treated by a medical practitioner. The spread of infection throughout the whole series of village outbreaks is attributed to the indiscriminate and reckless intercourse maintained between infected and healthy households. It was impossible, the report says, at so late a date as this inquiry, to appraise at their respective values the influence of school attendance and of ordinary domestic intercourse upon the mode or rate of extension of the outbreak. Inquiry with such an object in view does not appear to have been undertaken at the outset, when evidence in this regard might best have been obtained. Speaking with necessary reservation, the report goes on: It would appear that in the case of two villages, the earliest cases were unconnected with school attendance, and that at a later date the opportunities of close intercourse amongst the children residing in them were nearly as frequent elsewhere as at school. Dr. Page closes a long report on the sanitary shortcomings which he found to exist in the Wisbech district with the usual recommendations for the guidance of the local Sanitary Authority. As will be readily imagined, these principally refer to an improvement in water-supply, and method of excrement and slop disposal; but the fact cannot be overlooked, that, until it is made compulsory on sanitary authorities to carry out such recommendations, in the majority of cases they will remain recommendations only.

### DR. PAGE ON SCARLATINAL PREVALENCE AT DONINGTON.

In the month of January of the present year, Dr. David Page was despatched by the Local Government Board to report on the recent epidemics of scarlatina at Donington and Moulton, in the Spalding Rural Sanitary District, in relation to school attendance. Before proceeding to consider the result of Dr. Page's inquiries it may not be out of place to remark that, from the number of outbreaks of fever which have recently been reported on by medical officers of the Local Government Board, it is to be gathered that the sanitary condition of the whole fen district, which adjoins the estuary of the Wash, is in anything but a satisfactory condition. The nature of the soil, which is for the most part silt or sandy loam, is highly favourable for percolation, and the system of making vault privies, only emptied about once in every year, conduces to extensive pollution of the water-supply, which is obtained partly from underground cisterns, or other less perfect means of storing rain-water caught on the roof, and partly from wells. In the course of the present inquiry Dr. Page found that in the district in question there was no system of sewerage; slops were disposed of either upon gardens when available, or into porous cesspools in the back yards. Formerly, he was told, open drains, wide and offensive, traversed the main streets of the towns, but were replaced several years since by eighteen-inch brick culverts. These, however, are intended for highway purposes only. On the other hand, the dwelling-houses of the labouring class are mostly four-roomed, well built and ventilated, and not overcrowded. The village of Donington presented an appearance of neatness and good order, a result, perhaps, of the frequent supervision of the sanitary officers, and the abatement of ordinary nuisances of the obtrusive kind. The sanitary condition of Donington cannot, however, be pronounced satisfactory, Dr. Page



observes, owing mainly to the need for a proper system of sewage disposal. Prior to this most recent outbreak, Donington had for three or four years past been free from scarlatina, the last outbreak having occurred in the summer of 1878; in the present instance, as far as could be ascertained, the first case occurred in the person of a child five years old, medically treated on July 6, 1882, who had been attending the infant-school up to the date of illness; the reasons given for the spread of the disease may best be gathered from the summary appended to Dr. Page's report. He says:—"Reviewing the results arrived at in the course of my inquiries, the following conclusions, illustrative of and confirming previous experience, may be submitted: first, that in relation to the customary means of scarlatinal spread by personal intercourse, elementary schools constitute a most effective and frequent agency; second, that the opportunities of school attendance of infected children, or of children belonging to infected families, are not, in large measure, efficiently controlled by existing local sanitary administration; third, that a system of notification of diseases occurring in connexion with children attending such schools alone offers a hopeful solution of the difficulty; provided also that the Local Authority has made provision of those other measures which are peculiarly the essentials of effective action against the spread of infection, namely, means of isolation and of efficient disinfection." It may be mentioned that during the whole inquiry nothing transpired tending to implicate the milk-supply of the district.

## ABSTRACTS AND EXTRACTS.

### CASE OF HYPODERMIC TRANSFUSION OF BLOOD.

DR. PALADINI relates the following case in the *Gazzetta Med. Italiana-Lombardia* for August 25:—A woman, forty-eight years of age, had suffered for a long time from menorrhagia, which had reduced her to a condition of extreme anæmia. When seen by Dr. Paladini at the beginning of August she had frequent faintings, although in the horizontal position, was unable to take food of any kind, and, in his opinion, transfusion was urgently called for on account of her very exhausted state. As the patient lived in a remote village, where appropriate instruments could not be obtained, he resolved to perform hypodermic injection by means of a syringe having a capacity of about ninety cubic centimetres, and a gum-elastic tube, to which a trocar and canula were attached. He selected the skin of the abdomen, because this was lax enough to be raised in large folds and to receive a considerable quantity of blood. The woman's husband having furnished about two hundred grammes of blood, two syringefuls were successfully injected into the subcutaneous tissue, at four fingers' breadth to the left of the umbilicus, care having been taken to force the trocar far enough in to insure a sufficient space for the reception of the blood. When the blood had been injected, a salient projection about the size of an egg could be felt there. It was calculated that at least 130 grammes of blood had been injected. No pain or other inconvenience was caused by the operation, and in about two hours the tumefaction had disappeared. The next day the uterine flow, which had continued, in some measure decreased, and the patient was able to take food and enjoy some sleep. The report comes down to a fortnight afterwards, when the patient was found to be slowly recovering her strength, but only just able to leave her bed, so great had been her prior exhaustion. The marked success which attended the hypodermic injection in this case leads Dr. Paladini to hope that so easy and innocuous a mode of performing transfusion will be hereafter frequently resorted to. If necessary, from 120 to 300 or 400 grammes of blood may thus be promptly injected by means of one, two, or three punctures.

### PHLYCTENULAR DISEASE OF THE EYE.

Dr. Wadsworth, in a paper read at the annual meeting of the Massachusetts Medical Society (*Boston Medical Journal*, August 2), after giving an excellent account of the symptomatology of this frequently occurring disease (usually termed scrofulous ophthalmia), goes on to speak of its treatment as follows:—

"What has been said of its etiology indicates both the importance and direction of the general treatment. This

should never be neglected, even in the slightest case. The diet should be easily digestible and nourishing, and attention to it in detail is always advisable. Healthy action of the skin is to be promoted by frequent bathing; and iron, malt, and cod-liver oil are to be prescribed, according to the case. The advantage of fresh air and light can hardly be over-estimated. Even in the coldest weather it is usually better that the patient, properly clothed, should be taken out for a time daily; and this is the more needed the poorer the hygienic surroundings of the patient are at home.

"Blepharospasm, the so-called photophobia, is to be feared, not for itself, but for the consequences it entails. The violent action of the orbicularis irritates still more the already inflamed cornea, incites to friction and consequent excoriation of the skin of the lids, with the result of increasing the general nervous excitability, and preventing the free bodily movement so necessary for the preservation of health. In considering the means for its relief, we should constantly remember that the stimulus which excites it starts from the irritated terminations of the trigeminus, and not from any hyperæsthesia of the retina. It is the irritation of the corneal nerves that chiefly excites the blepharospasm, and, so far as they are concerned, the local narcotic effect of atropine makes this our most reliable agent. The alleviating effect of even the first application is sometimes very great. A two-grain solution may be employed every other day, or two or three times daily; and if the case is seen early the spasm may thus be kept within bounds. But should the photophobic habit be once firmly established, relief is more difficult. When the lids are persistently kept closed it is commonly useless, or worse than useless, to entrust the application of any collyrium to the attendants. In the efforts to force open the lids of a struggling child with the fingers, more harm is likely to be done than the atropine will counteract, and the increased flow of tears excited will rapidly remove the small amount that has been instilled. The elevator is hardly safe in untrained hands. The application may perhaps be made when the child sleeps, but otherwise in such cases it is better left to the physician. Sometimes, however, reliance must be chiefly placed on less direct treatment. The benefit of cold applied to the lids has already been referred to. All friction must be prevented. Excoriations of the skin about the eyes may be washed with a solution of argenti nitras, or an ointment of ten grains of zinc oxide, or three or four grains each of this and white precipitate to the drachm, may be applied. Darkness only aggravates the symptoms. Within doors the light should be moderate and even, and increased as the condition improves; but sudden changes of light are to be carefully avoided. In the open air, a dark shade, large enough to protect both eyes though only one be affected, and arranged to stand out free from them, with a veil or smoked glasses if required, is of use. It is by attending to details that success is to be attained.

"When the eruption is limited to the conjunctiva, a simple collyrium of borax in water or camphor-water is often all the local treatment needed. Calomel, dusted on the conjunctiva lightly from a camel's-hair pencil every day or two till congestion has disappeared, seems to have a good effect in preventing relapses. But it must be employed with precaution. It should be pure and dry, only a very thin film being allowed to form on the conjunctiva; and the lower fold must be inspected after a moment or two, so that any that has collected there in a clump or thread may be removed. Properly used it is painless, and I have never seen any ill effects from it. In general, astringents are to be avoided; but when the condition is complicated with catarrhal inflammation of the conjunctiva, mild collyria of alum, zinc, or argenti nitras are in place. These should be employed cautiously, and their action watched if any fresh eruption exists.

"With an eruption on the cornea, I rely, with most oculists, on the action of atropine. The frequency of its application is to be governed in the main by its effects on the pupil, and it is to be continued until the ulceration is covered with epithelium. Here, also, calomel is apparently of benefit, but is, in contradiction to its use in the conjunctival affection, only to be applied after epithelial organisation is well under way. Yet I would make one exception to this last statement. In the fascicular form of keratitis it has seemed to me that calomel, applied somewhat freely during the progress of the band across the cornea, has sometimes



checked its course. So erratic, however, is this variety, and the opportunity for studying it is so comparatively infrequent, that I am willing to admit it may have been coincidence rather than effect that I observed. With the ointment of yellow oxide of mercury, much used in the same condition as is calomel, my experience has been limited, and it has appeared to me, at least, less agreeable to the patient. The sluggish, deep infiltration, whether at the edge of the cornea or more central, showing little or no tendency to the formation of vessels, demands, besides atropine, the application of hot fomentations, continued for half an hour or an hour three or four times daily. These help to relieve the pain, sometimes considerable, and invite the vascular outgrowth from the conjunctiva needed to furnish material for repair. Should perforation occur, pain usually ceases as if by magic, and the reparative process begins. Many and various have been the remedies recommended to promote the absorption of corneal opacities left by this and other diseases. My own belief is that none of these are of special value, and that the opacities are better entrusted to Nature to reduce, as she certainly will in part. Our task, after the immediate attack has passed, is to see to it that measures to improve and preserve the general health are continuously carried out, and thus recurrence prevented."

### NOTICES OF BOOKS.

*An Atlas of Illustrations of Pathology. Fasciculus V. Diseases of the Liver; with Pathological Summary* by Dr. GOODHART. London: The New Sydenham Society. 1883.

AFFECTIONS of the gall-bladder and larger bile-ducts form the subject matter of the number before us. Of catarrhal inflammation of the gall-ducts as an acute idiopathic disease, Dr. Goodhart has no pathological experience, and he evidently does not fully accept this explanation of those causeless attacks of jaundice to which both children and adults are so subject—a scepticism in regard to generally received doctrines which we share with him. The effects of dilatation of the gall-ducts, and of their occlusion, whether by gall-stones or in other ways, both on the ducts themselves and on the gall-bladder, are considered at some length. We cannot say that Dr. Goodhart has succeeded in throwing much light on the nature of those caseous, bile-containing nodules that are almost constantly present in the liver in cases of general miliary tuberculosis of some duration in children, and we consider that their exact mode of formation has still to be demonstrated. The plates are four in number. We doubt if many men would be able to say what the two latter were supposed to represent without reading the descriptions.

*Indian Snake Poisons: their Nature and Effects.* By A. J. WALL, M.D. Lond., F.R.C.S. Eng. London: W. H. Allen and Co. 1883. Pp. 171.

DR. WALL's object is to present in a concise form the chief features of snake-poisoning; and there is no doubt that he has considerable qualifications and has enjoyed excellent opportunities for the task. He takes up the subject in a practical manner. How, he asks, does snake-poison kill? What are the changes it effects in the animal system? Is there only one poison common to all snakes, or are there several? On the answer to these questions, of course, hangs the most important point of all—how shall snake-bite be treated? The first question is answered partly by the study of cases, and partly by the result of experimental investigation. The practical outcome is that a difference does exist in the physiological effects of different snake-poisons, though its exact nature is still obscure. Not only is this true of the viperine and colubrine tribes, it is equally true that there are distinct minor differences even between snakes which are closely allied. As to the intimate nature of snake-poison, nothing appears to be really known. Examined microscopically, cobra-venom is found to consist of a perfectly structureless plasma, in which a few bodies are to be detected, but which do not seem to be essential to the activity of the poison. Collected in quantity and treated with certain reagents, the activity of the poison is considerably modified. Thus, the addition of permanganate of potash quite destroys its power, so that a solution of it can be injected into an animal without producing any effects whatever.

This led to the hope that permanganate of potash might be used successfully in the treatment of snake-bites. Our author, however, shows that permanganate of potash destroys the poison by its oxidising power; but since it has no power of selecting one organic subject for oxidation rather than another, when introduced into the circulation its oxidising power is exerted on all the constituents of the blood generally, instead of being reserved for the cobra-poison in it alone. "If a substance should be found having the power of oxidation, with a special affinity for exercising it on snake-poison, the problem of the treatment of snake-bite would be solved; but potassium permanganate has not this special power." Is there no help, then, for those who have the misfortune to get bitten by one of those venomous beasts? "When the symptoms have once developed, a condition of appalling gravity is produced, of which little that is hopeful can be said here." Elsewhere the author says, "I have tried with care every one [remedy] that has been brought to my notice, and they have been very numerous; it is impossible to exaggerate the uselessness of each of them." Our only chance of successfully treating snake-bite lies in prevention of the absorption of the poison; fortunately, a large proportion of snake-bites occur on the limbs, where we can, in a measure, control the circulation. Dr. Wall recommends the use of an india-rubber band; this is to be firmly and tightly bound round the extremity above the seat of injury, and should encircle the limb several times, and it should be applied in all cases as soon as possible after the receipt of the injury. The next step is to remove the whole of the deposited poison, and the author describes how this is best done: "Life is not to be saved by a hap-hazard cutting away of anything that comes first, but by an intelligent and careful dissecting away of the parts holding the poison." We have now drawn sufficient attention to this interesting book. It is another valuable contribution to the literature of the subject, and can hardly fail to prove of service to those whose practice takes them into countries where snake-bites are common.

*Zur Lehre von den Complicirten Luxationen und deren Behandlung.* Von Dr. AUGUST SCHREIBER. Tübingen, 1883. Verlag der H. Laupp'schen Buchhandlung.

*A Treatise on Complicated Dislocations and their Treatment.* By Dr. AUGUST SCHREIBER. Pp. 106.

THE author, whose Atlas of Diseases of Joints was recently reviewed in this paper, has now published a treatise on Complicated Dislocations, including therein not only compound dislocations, but also dislocations, with or without external wound, complicated by fractures, ruptures of large vessels, nerves, or tendons, or other severe injury to adjacent structures. His reason for publishing it, as stated in the preface, is that these injuries, from their comparative infrequency, do not receive sufficient attention in systematic works on surgery, and are treated with only cursory notice. He cannot be charged with undue prolixity, as the whole work is comprised in 106 pages, of which nineteen are devoted to prefatory and historical remarks, and the remaining eighty-nine are chiefly filled with reports of cases compiled from periodicals and text-books. This brevity, highly commendable in these days of prolix writing, is, however, partly explained by an intimation of the author's intention to publish another work in which the subject will be treated in greater detail.

History proves that the surgical treatment of compound dislocations has been greatly modified in modern times. Before the present century, surgeons appear to have been almost unanimous in recommending non-reduction of compound dislocations of any except the smallest articulations; and amputations and resections were performed with an appalling percentage of fatal results. In the last hundred years, however, better treatment has become prevalent, and Listerism has undoubtedly given considerable impetus to this. Still, the cases recorded in this pamphlet prove that, prior to and since the introduction of Listerism, surgeons have successfully treated cases of compound dislocation, even accompanied by severe complications, without adopting special antiseptic precautions.

We should think that modern surgeons have already formed the conclusion as to treatment which our author draws from his own experience and from the recorded experience of others, namely, to always reduce the dislocation



where the reduction is not contra-indicated by special conditions, and to attempt by drainage, cleanliness, and antiseptics to prevent the inflammation and suppuration which would otherwise inevitably ensue in the majority of such cases. If reduction be contra-indicated, the question of excision or amputation must be decided by the local and general condition of the patient. Although these suggestions lack originality, the treatise is both interesting and useful, and the author deserves the gratitude of surgeons for having collected, from many different sources, reports of most instructive cases, which might otherwise have escaped notice.

## GENERAL CORRESPONDENCE.

### THE PICRIC-ACID TEST FOR SUGAR IN THE URINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In conjunction with Mr. J. B. Rukland (Assistant-Demonstrator of Physiology in the Melbourne University), I have been recently experimenting on the various methods of applying this test, and now desire to make one little suggestion, which, if adopted, will tend to simplify its use.

The estimation of the relative colour of liquids, as effected by filling similar glass vessels to a given height and then looking down them on to a white background, is a mode of procedure which involves loss both of urine and of the liquids under examination.

The colour of liquids can be much more readily compared in the following manner:—Take a number of graduated glass vessels of equal size, and place them at regular intervals in a wooden box, the anterior wall of which is perforated at corresponding intervals by holes of equal size, whilst the posterior wall is entirely removed. Now fill the glasses with the coloured liquids which are to be compared, and place the box in front of a window or other source of white light, when it becomes a very easy matter both to estimate difference of colour and to dilute the liquids till their colours are equal.

The advantage of such a simple contrivance is that it only permits the eye to take cognisance of equal bulks of liquid. Square glasses would be preferable, if procurable, since they would not refract light as much as the round ones do. I am, &c.,

JAMES W. BARRETT, M.B.  
Melbourne Hospital, August 27.

### EDUCATIONAL OVER-PRESSURE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Fresh from reading the warnings of Allbutt and Teale against the cultivation of precocity, feebleness, and myopia, and your own excellent articles on the same subject, I wish to point out to you a proposal which has recently been made to aggravate the evils we see arising.

It was lately determined by the Convocation of the London University that a scheme should be drawn out for a system of local examinations similar to those held by the older English and Scotch universities, and by the College of Preceptors.

I observe that it has been deliberately proposed to copy the evil example of Oxford and Cambridge in this matter, rather than the good one of the other institutions above mentioned, and to fix limits of age above which candidates shall not be admitted.

The main objects of such examinations are generally supposed to be the encouragement of good schools and schoolmasters, and the furnishing a species of passport to the gates of such occupations or professions as require a certain intellectual status. Why they should be so arranged as to stimulate precocity and cramming, and to discourage or exclude slow (which is often healthiest) development, I fail to comprehend. Like many other physicians, I have seen great mischief result from the Cambridge examinations, especially among young girls intended for the scholastic profession. I am, &c.,

JOHN BEDDOE, M.D., &c., B.A. Lond.

Clifton, October 14.

## REPORTS OF SOCIETIES.

### OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 3.

Dr. GERVIS, President, in the Chair.

#### HYPERTROPHY OF MAMMÆ.

Dr. J. A. MANSELL-MOULLIN showed a patient, aged eighteen, unmarried, the subject of hypertrophy of both mammæ. The patient's health was otherwise good. The nipples were small, the areolæ large.

Dr. CHAMPNEYS had seen a case in Professor Billroth's clinic treated by rest in bed, the breasts being suspended from above.

#### TUMOUR OF CLITORIS.

Dr. W. A. DUNCAN showed a large fibro-cellular tumour involving the clitoris and both nymphæ, which he had removed.

#### RUPTURED OVARIAN CYST.

Dr. W. A. DUNCAN also showed a multilocular ovarian tumour, one of the cysts of which had ruptured during an ordinary examination, leading to fatal peritonitis.

A committee was appointed to examine and report upon the specimen.

#### ARRESTED DEVELOPMENT OF ONE FŒTUS OF TWINS.

Dr. EDIS exhibited a specimen of this kind. One fœtus was born alive in the seventh month of pregnancy; the other, expelled seven hours before it, was shrivelled, and its placenta atrophied, apparently having died in utero about two months previously.

Dr. EDIS also showed twin fœtuses at about the fifth month of development.

Dr. MALINS had seen a case in which one fœtus had been born living at the eighth month, the growth of the other (expelled at the same time) having been arrested at the fourth month. Cruveilhier had illustrated the same condition. Such cases showed the power of toleration possessed by the uterus, and were also interesting in their medico-legal aspect.

#### PLACENTA SUCCENTURIATA.

Dr. CHAMPNEYS showed a placenta succenturiata. It was impossible, from an examination of the afterbirth, to diagnose the retention in utero of such a body.

Dr. DALY said these cases were of medico-legal interest. He had been called to a case in which a woman died from hæmorrhage, caused by a piece of placenta left in utero. An unqualified practitioner had attended the patient, and at the coroner's inquest pleaded that the retained piece was a supernumerary placenta; a view which was accepted by the jury.

#### GANGRENE DURING PREGNANCY.

Dr. SWAYNE related a case of gangrene occurring during the seventh month of pregnancy. The disease came on after a long journey, and attacked the integuments and muscles over a space the size of a man's fist on the upper and inner third of the right thigh. The symptoms had existed about four days before the occurrence of premature labour, but were not very severe until after delivery, when they became much intensified, and proved fatal early on the third day. There was no injury, wound, or erysipelatous inflammation to account for the occurrence.

Dr. BURCHELL said that although the case was not clear, he could not help believing it to have been one of strangulated femoral hernia.

Dr. HERMAN asked if the case were not one of gangrenous carbuncular inflammation.

Dr. SWAYNE thought the most probable explanation was that the gangrene was due to undue pressure on the iliac vessels, possibly from tight lacing, to which the patient was accustomed. The situation of the tumour precluded the idea of strangulated hernia; the vesication and absence of any head, that of malignant carbuncle; and the absence of diffused redness at the onset, that of erysipelas.

#### ON THE ANATOMY, PHYSIOLOGY, AND PATHOLOGY OF THE OS UTERI INTERNUM.

This paper, by Dr. HENRY BENNET, was then read. The author had in 1849 drawn attention to the existence of a muscular sphincter at the os uteri internum, and this, like



all sphincters, was closed when at rest. This fact was accepted by many at the time, but now seemed to have passed out of mind. It had a most important bearing on uterine therapeutics. The ordinary, physiological, closed state of this sphincter offered resistance to the passage of the metallic sound; but a small wax bougie could be passed through it. By the use of such bougies he had in 1846 discovered that the cavity of the uterus was not straight, but had an anterior concavity. This sphincter was no doubt greatly developed by pregnancy. It opened slightly before, during, and after menstruation, and probably during sexual congress. It was relaxed by disease, such as fibroids, chronic uterine inflammation, endometritis. The easy passage of the sound was therefore an indication of a morbid rather than of a healthy condition of uterus. This fact had an important bearing on the theory and treatment of sterility. If a closed os uteri were presumed to be a morbid condition, then nearly all healthy young women who were examined would be erroneously considered to require surgical treatment.

Dr. GALABIN had no doubt of the existence of a sphincter at the os internum. This was shown by the constriction often seen at this point in a laminaria tent, and by the rapid contraction of the os after dilatation. But he could not agree with Dr. Bennet that it was normally completely closed. Where the passage of the ordinary sound was resisted, a smaller one, without a bulbous end, would often pass, if the direction of the canal were hit upon, although a hitch was sometimes caused by flexion of the canal. He thought further evidence was much to be desired as to the cure of sterility by incision or dilatation of the cervix. His impression was that he had seen a larger proportion of pregnancies follow dilatation by bougies than incision. He thought it would be of great value if some of those who performed the operation would give the number of pregnancies following in a complete series of consecutive cases. The only such series he remembered did not show a greater number than might be accounted for by coincidence.

The PRESIDENT remarked on the interest and value of Dr. Bennet's paper. In former years he (the President) had rarely incised the os internum. But lately, where there was evident constriction (a fact of which he had no doubt), he had done so, and his results had been distinctly better. Where the os internum was fairly patulous, and the constriction affected the os externum alone, he was satisfied with its division.

Dr. HEYWOOD SMITH protested against the use of scissors to divide the os externum, for too extensive an incision was thus made, and the power of imbibition possessed by the external os destroyed. The most scientific method of doing the operation was with Sims's narrow-bladed knife.

Dr. PLAYFAIR believed very little in stenosis of the os internum, and not at all in its incision for the cure of sterility. Incision of the os externum in well-selected cases was occasionally followed by pregnancy, but he believed it was done far too often and too indiscriminately. He believed it acted not only by enlarging the os, but by remedying the conical condition of the cervix, which was more often than stenosis the cause of sterility.

Dr. CHAMPNEYS pointed out that difficulty in the passage of the sound was not proof of stenosis of the os internum. Difficulty might arise even when the canal was larger than usual, from the instrument being passed in the wrong axis, or from its point catching in a fold of mucous membrane. It was only when the bulb of the sound was gripped during withdrawal that stenosis could be inferred.

Dr. AVELING was sure that contraction of the os internum was a cause of dysmenorrhœa and sterility, and believed that incision gave more permanent relief than dilatation. After incision he did not use a stem pessary, but passed the sound daily for a week, and then less often till healing had taken place.

Dr. EDIS thought there were instances in which division of the internal as well as the external os was needed. Each case must be treated on its own merits, it being impossible to lay down any general rule. After incision he used a stem pessary, the patient being carefully watched.

Dr. MURRAY thought division of the os uteri for sterility alone of doubtful utility. He had seen many cases in which it had been done without good results. It was not free from risk to life, and ought not to be done simply at the request of the patient.

Dr. HENRY BENNET gathered that his views were generally accepted, although some might not go so far as he did. Deep division of the cervix had been formerly, and he believed was still, too frequently performed by some practitioners. The abuse of surgical treatment might be on the wane in England, but certainly was not elsewhere. It was therefore desirable to establish the anatomy, physiology, and pathology of the os internum on a sound basis. Other waves of opinion were setting in, equally exaggerated in their character; as, for instance, in America, the unjustifiable sewing up of the lacerated cervix uteri for insignificant lesions easily cured by the simplest local treatment, and with us the abuse of pessaries.

## THE OPHTHALMOLOGICAL SOCIETY.

THURSDAY, OCTOBER 11.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Mr. HUTCHINSON, on taking for the first time his seat as President, delivered the address which is printed elsewhere in our pages.

At the conclusion of it, Dr. GEORGE JOHNSON rose to propose, on the part of the Society, a hearty vote of thanks to Mr. Bowman for his munificent gift, and expressed himself as certain that to all personally acquainted with Mr. Bowman this gift would be no matter for surprise.

The vote of thanks, having been briefly seconded by Mr. WORDSWORTH, was carried by acclamation, and the President undertook to wait upon Mr. Bowman and convey to him in person the thanks of the Society.

### CONTRACTED FIELD OF VISION AND OPTIC ATROPHY IN A CASE OF HEMIPLEGIA.

Dr. ORMEROD showed a man, aged forty-four, who had had an attack of left hemiplegia fifteen months previously. Since May last, atrophy of the right optic disc had been noticed. The patient had had syphilis. The field of vision was limited to the lower and inner quadrants. Since the eye had been fully under the influence of atropine, a small detachment of the retina near the periphery on the outer side had been detected, which he imagined was a separate lesion, and quite independent of the cerebral condition.

Mr. NETTLESHIP said that, on examining the patient, he had been strongly impressed with the idea that the swelling of the retina was due to a sarcoma of the choroid, and he thought that it was very important that a correct diagnosis should be arrived at without delay.

Mr. JAMES E. ADAMS also thought that the case was one of sarcoma of the choroid.

Ultimately, Mr. Nettleship and Mr. Adams were appointed to form a committee to report upon the case.

### GLAUCOMA FOLLOWING A BLOW.

Dr. BRAILEY exhibited a boy, aged fourteen, in whom glaucoma had supervened upon a blow with a cork. When seen, eight days after the accident, there was + T. 2. This fell to normal after one instillation of a four-grain solution of eserine. The fundus was not seen quite so clearly in the affected eye, and the disc was somewhat hazy.

### TUMOUR AT SCLEROCORNEAL JUNCTION.

Mr. FREDERICK MASON brought forward the woman whom he had exhibited two years previously at a meeting of the Society, and whose case was reported in the second volume of the Society's *Transactions*. Since the operation there had been no fresh growth, the patient remaining very much in the same condition.

### CHRONIC TUBERCULOSIS OF THE CHOROID.

Mr. W. H. JESSOP showed a girl, aged twelve, with physical signs of phthisis at both apices, and a marked history of phthisis in the family. The child stated that she had never been able to see better with the left eye than she could at the present time. In the left eye, at the yellow-spot region was a rounded swelling, projecting one millimetre, of a brilliant white colour when seen with the ophthalmoscope, and ill defined towards the periphery. Between the disc and the swelling were eight small white brilliant spots.

### HOMONYMOUS HEMIANOPIA.

Mr. NETTLESHIP read the notes of the case of a man who was blind with one eye, and had hemianopia with the other,



from a tumour pressing on the optic nerve, chiasma, and tract on the same side as the blind eye. The patient came under observation first at the age of thirty for recent failure of the left eye. The disc showed slight atrophic changes, and was said by an earlier observer to have been inflamed. Subsequently this eye became nearly blind, the disc atrophied, and the patient lost the right half of the visual field in the other eye, the disc of which also became atrophic. The hemianopia was sharply defined, and the boundary line passed through the fixation point. The left third nerve also became paralysed. At the same time discharge of bloody mucus from the left nostril, defective smell, difficulty in opening the jaw, and the appearance of a lump behind the jaw on the left side, pointed to a tumour at the base of the skull involving the optic nerve, and at a later stage the tract and third nerve on that side. The man died in September last, seven years from the time that he first came under observation, and a large tumour was found, apparently growing from the body of the sphenoid, and compressing but not infiltrating the parts mentioned as well as the crus and the pons.

#### HOMONYMOUS HEMIANOPIA.

Dr. SHARKEY read a paper on a case of homonymous hemianopia, probably due to a cortical lesion. The patient was a female, aged fifty-one, who came under Dr. Sharkey's care on July 5, 1883. The present illness began two years and a half before, whilst the patient was walking across a hayfield, when she had the first of a series of "fits" of exactly similar character. The order of events in these attacks was as follows:—Suddenly there appeared "in the right eye" a play of all the colours of the rainbow, "quivering" and "fluttering" before her. Then the right arm became convulsed, and the forearm and hand were rotated inwards. Soon the right leg was rigidly extended backwards and outwards; then loss of consciousness supervened, and she bit her tongue. She remained unconscious of her surroundings, and when she did recover her senses she found she had a severe pain in the top of her head, and weakness of the right arm, but none of the right leg. Moreover, she could see nothing on her right side without turning her head in that direction. She had no loss of sensation or of speech. When first seen by Dr. Sharkey she had a painful area on the top of her head posteriorly, about two inches in diameter, which was tender on percussion. There was weakness of the right hand and arm, and right lateral homonymous hemianopia of such a kind that there remained a considerable area of normal central vision on all sides of the fixation point. Colour-vision was intact except in the blind portions. Dr. Sharkey thought that the diagnosis of a lesion of the left hemisphere affecting the cortical centre for the arm and its neighbourhood was as nearly certain as any diagnosis could be, which was not subjected to the test of an autopsy. The succession of phenomena above described presented a vivid and typical picture of cortical lesions. Ferrier long ago established a connexion between each hemisphere and the opposite eye, and localised the "visual centre" in the angular gyrus. But since then Munk has proved by experiment that lesions of other parts produce, not amblyopia of the opposite eye, but homonymous hemianopia. Dr. Sharkey's case showed that in such conditions central vision may be unaltered. This being the case, it proves that there must be, to some extent, a separation between the area in the cortex which receives the peripheral fibres of the corresponding halves of the retina, and that which receives the central fibres of the retina. The probabilities are in favour of the "visual centre" being an extensive expansion of grey matter in the posterior parts of the hemispheres, in which is represented separately every portion of the retina. And probably great variety will be found in the shape of visual defects in homonymous hemianopia due to cortical lesions. In order to represent the state of our knowledge, the well-known diagram of Charcot requires slight modification. Leaving in his diagram the crossed fibres, as representing the central fibres only of each retina, let the neighbouring but somewhat distinct cortical centre be added, from which the peripheral fibres to corresponding halves of the retina start. From this centre draw a line running down the optic tract of its own side, and bifurcating at the chiasma, one portion of the fibres passing to the periphery of the temporal half of the retina of the same side, and the other portion to the periphery of the nasal half of the opposite retina.

## THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 12.

Sir ANDREW CLARK, Bart., President, in the Chair.

THE PRESIDENT, after a few words of welcome upon the commencement of a new session, took occasion to bring before the Society, and especially its surgical members, the subject of severe illness leading to a fatal issue in cases of continued catheterisation, apparently due to that cause alone, and presenting no pathological changes beyond those of a slightly inflamed bladder. He related the particulars of one such case, in which fever ensued four days after the first catheterism, leading to collapse and death in nine days. Similar cases having occurred to him to the number of four or five in a year, and no explanation having been found either in contemporary opinion or in the writings of previous authorities, he suggested that attention should be drawn to such cases with a view to investigating their true nature.

#### THREE CASES OF PERITONEAL ABSCESS IN CHILDREN.

Dr. GOODHART read notes of three cases of peritoneal abscess in children. The first was that of a girl, aged eleven years, who was said to have suffered from typhoid fever four months before she came under treatment. She was in bed for eight weeks, and in the seventh week had chicken-pox. Soon after this an abscess formed at the umbilicus, and opened. She was admitted into the Evelina Hospital with a sinus discharging pus copiously at the umbilicus. She was placed under chloroform, and Mr. Howse made a thorough examination with a probe. This left no doubt, from the freedom with which it passed deeply in all directions, that the pus came from the peritoneal cavity; but seeing that there was now no febrile disturbance, it was decided to keep the child in bed, feed her well, and watch the course of events. She steadily increased in weight, the discharge gradually diminished, and after three months had all but ceased. She has now been for many months quite well.—The second case was that of a boy, aged eleven years, who had been quite well till shortly before admission. His illness, attributed to getting wet, began with rigors and vomiting. When admitted he was extremely ill, and the case was very obscure, but gradually a diffused abdominal dulness became localised in the hypogastrium, and the abdominal wall began to bulge. After he had been in the hospital a month, Mr. Howse made a small incision into what appeared to be an abscess. This was followed by the escape of a quantity of thin pus and some foetid gas. A long probe passed several inches in all directions into the peritoneal cavity. A quantity of foetid pus continued to discharge daily, but his condition did not improve, and the opening was therefore enlarged, but neither did this mend matters, and shortly after an explanation of its failure arose in the fact that the left pleura began to fill with fluid. The chest was incised, and sixteen ounces of very foetid pus came away. Before long it became necessary to treat the left chest in the same way, and with considerable relief to the child for the time. The lung, however, became consolidated, and he ultimately sank. The post-mortem examination showed that there had been a peritoneal abscess, for which no cause could be discovered, that this had localised itself in each hypochondrium, and had thence perforated the pleurae, and on the one side had set up a destructive pneumonia. There was no evidence of any tubercular disease. The viscera were lardaceous.—The third case was a female child, aged five years. Her illness began six weeks before admission, with inflammation of the bowels, and she was sent into the hospital for a supposed retention of urine, the abdominal swelling resembling a distended bladder. As the temperature was rather erratic, at the end of a week an exploring syringe was introduced two inches below the umbilicus, and some thick, dirty, foetid pus was withdrawn. A free incision opened a cavity which appeared to be limited behind by intestine covered by omentum. A drainage-tube was inserted for a few days, but the discharge soon diminished so much as to allow of its withdrawal, and at the end of six weeks she was well. Dr. Goodhart thought the cases worthy of record, first, because of their rarity, and secondly, because the question of treatment is not an easy one to determine satisfactorily. On the one hand, there is the risk of the pus gravitating to the hypochondria, as actually



happened in one case, if a free opening be not made; on the other, there is the difficulty of draining the cavity of the peritoneum if it be made; though on the whole the cases point in the direction of the latter course as being the most advisable. It is probable that the surgeon might have no doubt upon the point. He would say that free drainage after abdominal operations presents few difficulties, and cases so treated are most successful; but it may be questioned whether the conditions after operation are quite parallel to those of pus in the peritoneum, and where there is a considerable tendency for the one collection to become distributed and to form several separate abscesses.

The PRESIDENT invited discussion on Dr. Goodhart's paper, especially with reference to the treatment of peritoneal abscesses. He related the details of a case in which severe peritonitis with collapse was followed by the appearance of a lump in the abdomen, which subsequently was found to contain fluid. The question of operation then became pressing, but eventually it was decided to avoid surgical interference. Three days later, pus was evacuated from the rectum, with marked relief to the patient. A relapse took place, and a similar decision with regard to operation was followed by a second discharge of pus, and convalescence.

Mr. GODLEE mentioned two cases of discharging peritoneal abscess, in one of which an enlargement of the discharging sinus gave no relief, owing to the presence of other collections of pus in the abdomen. Although numerous cheesy masses were found, there was no evidence of tubercle, nor were the mesenteric glands much enlarged.

Dr. MAHOMED thought that such cases were not so rare as was supposed, but were frequently only noticed during post-mortem examinations, and not explained. He brought forward three cases, of which one appeared to be due to suppuration of mesenteric glands, the other two being cases of diffuse suppuration, not of tubercular origin, and not connected with glands. One of the cases appeared as a direct sequel of scarlatina. He suggested that the process might not improbably commence in the lymphatic vessels of the intestine as the result of direct irritation either by unsuitable food or by some specific organisms.

Mr. HOWARD MARSH called attention to the fact that these cases, and others which result in faecal fistula, are by no means well understood. Two cases presenting at the umbilicus recovered completely under simple drainage, neither being tuberculous. A third case, due in the first onset to a strain, discharged very freely, but was followed, after incautious purgation, by symptoms of perforation, which, relieved for a time, recurred later on, with fatal issue.

Mr. BARKER gave details of a case of abscess presenting through the femoral opening, and apparently in the peritoneal cavity, but localised. He pointed out that operative treatment in such a case was indicated, to avoid danger of internal rupture.

Dr. F. TAYLOR agreed in the advisability of operative treatment where the abscess could be safely got at; but in the numerous cases of abscess following peritonitis, no means of diagnosing either the existence or seat of such abscess presented themselves until long after the subsidence of the initial mischief. In reply to the President, he stated that he had never known cases where the patient had recovered after the formation of pus, without some natural or artificial opening having occurred.

Dr. HABERSHON pointed out that all the cases referred to, having origin in the various forms of chronic peritonitis, were essentially different from those described by Dr. Goodhart. Abscess in the abdominal parietes due to injury might occasionally make its way inwards. Such cases were not rare. Softening of blood-clot effused during enteric fever might also appear as a cause of peritoneal abscess.

Dr. EDRIS drew attention to the occurrence of localised pelvic abscess, of which he related a case successfully treated by aspiration through the vagina. He believed that encysted peritoneal abscess was often overlooked, and advocated the employment of aspiration as a means of treatment.

Dr. GOODHART, in reply, maintained his view of the comparative rarity of the cases which he had brought forward, and showed that many of the cases mentioned differed essentially from them. The treatment by evacuation was always open to risk, and no means existed of determining whether the abscess was single or one of many.

The PRESIDENT drew attention to the fact that, although

many of the cases related were associated with cheesy masse in the abdomen, none were recognised as tuberculous.

#### ANOMALOUS CASE OF CEREBRO-SPINAL SCLEROSIS.

Dr. CHARLTON BASTIAN read an abstract of the notes of this case, which will be found in another part of the present issue.

Dr. ALTHAUS remarked upon the absence of tremor in the case, and mentioned one similar instance where the other symptoms could leave no doubt as to the diagnosis.

Dr. LONGHURST called attention to the importance of previous injury in the production of the disease, and mentioned a case attributed to a fall from a horse four years previous to the onset of the symptoms.

Dr. ANGEL MONEY suggested that the absence of tremor might be due to the freedom from disease of the corpora striata and cerebellum.

Dr. BASTIAN, in reply, recorded the absence of true nystagmus in the case, but was inclined to attribute the absence of tremor to the early onset of the disease in the anterior pyramids, cerebral influence being thus cut off from parts of the spinal cord.

### THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 16.

J. W. HULKE, F.R.S., President, in the Chair.

#### LYMPHO-SARCOMA OF THE INTESTINE.

Dr. R. E. CARINGTON showed a portion of the intestine of a woman who had died in Guy's Hospital, under the care of Dr. Goodhart, from the malignant form of Hodgkin's disease. The patient was aged fifty five years and married, but had had no children and no miscarriages. There was no history of syphilis, and no malaria, though she had lived in a damp house on the banks of the Shannon. In June, 1882, she first noticed that the glands in the left side of her neck were swollen, and soon there ensued loss of appetite and loss of flesh. In August her legs became swollen and her abdomen enlarged, and she took to her bed in September. After this there were occasional periods of improvement, but she was unable to leave her room. In October she noticed a swelling in the right side of her neck. On admission into the hospital she was anæmic and emaciated, and there was generalised oedema; the cervical, submaxillary, axillary, and inguinal glands were enlarged, as also those at the bends of the elbows; there was a moderate degree of ascites; the liver could not be made out, but the spleen was very greatly enlarged. There were no definite signs as to the lungs. The area of cardiac dulness was increased, and the second sound was reduplicated. The appetite was good, and the bowels regular. Micturition was frequent, the urine being of specific gravity 1015, and free from albumen or sugar. There were no retinal hæmorrhages. The temperature was normal, and the blood showed 4.3 white corpuscles per thousand red. After a slightly febrile attack she gradually sank and died. At the autopsy there was general anasarca. The brain and its membranes were healthy; the lungs normal; the heart was small, its valves thickened. The cervical glands were enlarged, white, and brain-like, containing a milky fluid consisting almost entirely of leucocytes; the mediastinal glands were greatly enlarged. The colon was greatly distended, with medullary-looking fleshy nodules in it. The glands were everywhere enlarged. The peritoneum was healthy. The stomach contained many cream-like, fatty tumours; several of them were mere infiltrations of the walls. The pylorus was in a similar condition. The duodenum was healthy. The valvula conniventes were swollen, and contained numerous polypoid and cream-like excrescences (many of them were ulcerated on the surface), throughout the small and large intestines, especially in the latter. The solitary glands were in a similar state. There was no contraction or dilatation of the bowel. The spleen weighed forty-four ounces; there was a diffused soft growth throughout; it was not altered in colour. The liver was healthy; the portal vein and hepatic ducts were free from obstruction; the inferior cava was surrounded by enlarged glands. The growth in the colon showed the structure of a lymphoma. He had only been able to find recorded in the *Transactions* four cases resembling the present one.



The PRESIDENT remarked that it was very unusual to find the disease so widespread as in the present case.

Dr. PYE-SMITH referred to a similar case which had been published in 1861, under the title of "*Leukhæmia Intestinalis*."

Dr. COUPLAND said that there was a still earlier case on record, viz., that described by Cruveilhier in his Atlas.

#### SCIRRHUS OF BLADDER.

Dr. W. B. HADDEN exhibited a specimen of this disease. The patient, a man aged sixty-three, had been under the care of Sir William Mac Cormac in St. Thomas's Hospital. The chief symptoms had been hæmaturia, and severe pain and difficulty in micturition. A large, firm mass could be felt per anum in the situation of the prostate. At the autopsy the right kidney was found to be very small; it contained a few cysts and some abscesses; its outer surface was irregular and tuberculated. There was a soft, warty-looking growth, made up of granulation tissue, attached to the mucous membrane on the right side of the bladder, just beyond the neck. The anterior wall of the bladder was much thickened, white, and very hard. The growth, which had infiltrated the wall, extended upwards for two and a half inches from a point a quarter of an inch beyond the prostate. The latter was not involved. There were two or three large, hard glands behind the bladder, but no other secondary deposits. Microscopically, the growth was found to be scirrhous. Although Sir Henry Thompson stated that scirrhous was the most common form of tumour of the bladder after villous growth, only two similar cases to the present were recorded in the *Transactions*, one by Dr. Bastian, the other by Mr. Butlin.

#### CONGENITAL TUMOUR OF ORBIT.

Mr. LAWSON showed a drawing and narrated the case of a male infant who was brought to him in May, 1882, at Moorfields, when two days old, suffering from complete exophthalmos of the right eye, which was congenital, and evidently due to a tumour of the orbit. He at once removed the eye. The child went on well until the following August, when convulsions and coma set in, and it died after two days' illness. On autopsy, the body was emaciated, and the right orbit filled by a tumour. On the under surface of the brain the right middle lobe was indented by a cystic growth springing from the sphenoid bone. There was basic meningitis confined to the right side. Growing from the body of the sphenoid bone there was found a solid tumour with several multilocular cysts embedded in it. On microscopical examination the growth contained patches of hyaline cartilage, spherical or oblong, many of them surrounded by spindle-cells, but with every gradation from cartilage-cells. The walls of the cysts were lined with pavement epithelium; elsewhere were seen masses of round cells like embryonic tissue.

The PRESIDENT remarked that Virchow had described a similar case.

The specimen was referred to the Morbid Growths Committee.

#### ACUTE GASTRO-ENTERITIS IN A BEAR.

Mr. J. HUTCHINSON, jun., showed the stomach of a female bear which had been at the Zoological Gardens about four years, and died in February last after one day's illness. The stomach and upper part of the intestines were acutely inflamed; the rest of the alimentary canal was healthy. There was no food, but much exudation, in the stomach and neighbouring parts of the intestines. No torule, sarcine, or micro-organisms were found, but minute quantities of round cells and fibrin, with altered blood. The uterus, bladder, and trachea showed acute catarrh. The other viscera were healthy. Probably the disease was purely catarrhal. It was noteworthy that there was no fur whatever on the tongue.

#### MELANOTIC SARCOMA OF BRAIN.

Mr. KESTEVEN showed this specimen. The patient was an elderly lady, from whom Mr. Gould had a year previously removed a melanotic tumour of the thigh. At the autopsy the meninges were healthy. On removing the dura mater a dark patch was seen in the region of the upper part of the left superior frontal convolution; just below this were two similar masses—one in the situation of the third left frontal convolution. The masses had no distinct capsule, and the brain-tissue around was softened. There were no tumours on the surface of the right hemisphere, but there was a large

one in the right centrum ovale, which communicated with the lateral ventricle. At the base of the brain on the left side were several tumours—one large one between the pons Varolii and crus cerebri, very soft, the brain-tissue all round being broken down. In all, there were eleven tumours, and they were all found to be round-celled melanotic sarcomata.

#### SEBACEOUS CYST FROM THE FINGER.

Mr. POLAND related the removal of a sebaceous cyst from the terminal phalanx of the ring-finger; the outer part of it seemed to be formed of dense laminae of epidermal scales.

Mr. GODLEE said that he had removed three cysts of this sort—all, he believed, from the ring-finger. Two of them followed some injury. He had always been inclined to think that they might be dermoid cysts; but he had not made a microscopical examination of the walls in any of them. He did not see how they could be sebaceous cysts.

Dr. SAVAGE said that twenty-three years previously he had had a sebaceous cyst removed from his ring-finger. He could not account for its presence.

The PRESIDENT observed that two of Mr. Godlee's cases were traumatic. Several cases had been recorded in which sebaceous cysts had formed in the interior of the eye, especially in the neighbourhood of the iris after a penetrating wound, where, presumably, an eyelash had been carried into the eye; and he thought that perhaps a similar occurrence might have been the cause in such cases as those just mentioned.

Mr. POLAND, in reply to the question as to the nature of the wall of the cyst, said that there was no distinct wall that could be dissected off.

#### CONGENITAL MALFORMATION OF HEART.

Dr. HOWARD TOOTH showed the heart of a boy, aged six years, who had been a patient of Dr. Gee's at St. Bartholomew's Hospital. The signs were marked cyanosis, especially of the lips and tongue, clubbing of the fingers and toes. There was bulging in the præcordial area, and a loud systolic murmur all over, but loudest at the apex. The child was admitted for enteric fever, and died from peritonitis. On autopsy, the characteristic lesions of enteric fever were found in the intestines. The heart weighed eight ounces and a half. The foramen ovale was not quite closed. The right ventricle was dilated, and the aorta arose from it, and went over to the root of the left lung as usual. The septum between the ventricles was deficient at the base, and the space thus formed was divided into two holes by a columna carnea. The endocardium was thickened at the edge of this hole. The pulmonary artery, which was of fair size, and guarded by only two sigmoid cusps, also arose from the right ventricle. The ductus arteriosus was closed. The left auricle was smaller than the right. The left ventricle was small, and had no vessel arising from it, and must therefore have propelled the blood contained in it into the right ventricle. He believed that this was a decidedly rare form of malformation of the heart. The existence of endocarditis was a further evidence of the well-known tendency to it in these cases.

#### GUMMA OF SPINAL DURA MATER AND SYRINGO-MYELUS.

Dr. FREDERICK TAYLOR showed this specimen. The patient was a woman who had had ulceration of the hard palate and, about three years previously, paralysis of the left side of the body. The arm and face had recovered. One year before she came under observation she had had paralysis of the right leg, and this, as well as that of the left, had persisted, and the limbs had become rigid. She was pregnant, and aborted whilst under observation. After death, the spinal meninges were found to be thickened throughout, especially in the lower dorsal region. Opposite to the ninth dorsal vertebra a spherical mass was found pressing on the cord, which was softened at this spot, and degenerated above and below. Extending throughout the whole length of the cord there was a cavity, mostly single, but for a short distance in the dorsal region double in each posterior cornu. It was behind the normal central canal, and in the lower part of the cord was on the right side only. There was no lining membrane, the tissue around it being merely somewhat denser than elsewhere. The contents were not noticed. He had shown to the Society, four years ago, a case very similar to this one. The paraplegia, he thought, was due to the gumma, and the syringo-myelus was congenital.



## BONE DISEASE IN MONKEYS.

Mr. SUTTON said that the most prominent symptoms of rickets in a monkey were diminished activity, paralysis of the lower limbs so that the animal dragged himself along, using his arms as crutches, which caused these to bend; gradually the paraplegia became complete; there was priapism, and incontinence of urine and fæces. The disease ran a very rapid course, and the animals died in three or four months' time from bronchitis or bronchopneumonia. In capuchins the chief signs were beaded ribs, softened and curved bones, enlarged epiphyses, deformed pelvis; the skull was remarkably eroded, perforated, and slightly thickened—on either side of the foramen magnum was a tabetic patch. The shafts of the long bones presented a most remarkable condition, the compact tissue being split up into longitudinal lamellæ, separated by tracts of richly cellular connective tissue, which was readily seen to be continuous with the deeper layers of the periosteum; the medullary cavities were filled with dark red marrow; the epiphyses showed the condition he had already described as diffuse epiphysis, and he was satisfied that the enlarged epiphyses met with in rickets were due to the ossific matter being deposited in a diffuse and irregular manner. The paraplegia was due to compression of the spinal cord from overgrowth and softening of the vertebræ gradually encroaching upon it. The nerves also, partly from the same cause, and partly from the weight of the body, would get pinched in the intervertebral foramina, and thus he would explain the pains in the legs and urino-genital troubles which formed such prominent symptoms in the disease. Examination of the spinal cord with the microscope showed all the changes found in the cord in compression from cancer, Pott's disease, etc.

Dr. GOODHART asked for some information relative to the age of these monkeys. Last session Mr. Sutton had shown these changes in animals about the age of four years; and if these animals were as old, the disease was probably more allied to "late rickets" in the human subject than to ordinary rickets, and therefore must be regarded as a totally distinct disease. He also asked if lardaceous disease had been present in any of these animals.

Mr. SUTTON, in reply, said it was exceedingly difficult to estimate the age of the monkeys; they were not born in the Gardens, and the state of the epiphyses was almost the only guide, and that not a very reliable one. He had not found lardaceous disease again since the case reported last session.

## CARD SPECIMENS.

Mr. SILCOCK—Tubercular Ulcer of Large Intestine.

Dr. F. TAYLOR—Dysentery; Abscesses of Liver.

## OBITUARY.

JOHN SULLIVAN, M.D., M.R.C.P. LOND., L.R.C.S. EDIN.

DR. JOHN SULLIVAN, whose death we would, if possible, have noticed earlier, became well known to the readers of our pages, in 1877 and subsequent years, through his papers on Malarial Fevers. He was a typical example of the energetic and adventurous medical man, to whom the daily round of general practice in England is insufferably tedious and dull; and who is consequently driven by natural temperament and taste to seek practice in more stirring and adventure-bringing countries. Born in Limerick in 1818, he was the eldest of five brothers, who all entered the medical profession, and practised more or less successfully in various parts of the world. His father, who was the owner of considerable landed property in Ireland, died at a comparatively early age, after having given his sons a good college education. John Sullivan studied medicine at the Westminster Hospital and Medical School, and in Paris. He does not seem to have taken a medical degree in Paris; but he studied under Orfila, and attended the practice of the Paris hospitals in 1833-34-35; and in 1838 he took the certificate of Bachelier des Lettres of Paris, and in the same year became a Licentiate of the Society of Apothecaries of London, and of the Royal College of Surgeons of Edinburgh. He was offered an appointment as Surgeon in the Indian Army, having thus the chance of a career particularly well suited, one may suppose, to his gifts. At this time, however, he married, and thereupon, making the Indian appointment over to one of his brothers, he settled in Guilford-street, Russell-

square. After some years of successful work there, he disposed of his practice, and settled in Oxfordshire; but was tempted to give up the field of medical work there for California. The vessel in which he went out was detained for some reason at Valparaiso, South America, and there he elected to remain, visiting and practising also in various towns and cities along the coast. In 1850 he returned to England, and took the Extra-Licentiate of the Royal College of Physicians of London. Early in 1851 he sailed, with his family, for Buenos Ayres; passed an examination in medicine there, and obtained a licence to practise; and was appointed physician to the well-known General Rozas. He quickly became the chief physician in the city, and was doing very well when a rebellion broke out. The General fled to England; and Dr. Sullivan's family returned home, but he himself remained in Buenos Ayres till the beginning of 1853, when he crossed the Andes, and for the next six years practised in Valparaiso, Iquique, and other cities; and in 1859, returning to England again, tried once more home practice, settling down this time in Portsmouth. He soon tired, however, of the experiment, and in 1860 proceeded again to South America. It would be tedious to state in detail the various movements of Dr. Sullivan during the next sixteen years; but though he was for some time in the island of Porto Rico, he spent the greater part of the time in Havana (where he held for some years the post of Senior Physician to the Royal Hospital) and in Cuba. In 1875 the Cuban insurrection broke out, but Dr. Sullivan remained at his post until April, 1876, when he finally left the West Indies, returned home, and in 1877 was admitted a Member of the Royal College of Physicians. In every place in which he settled, in South America and in the West Indies, his energy and his professional acquirements and skill seem to have been promptly recognised: in some he was appointed to high and important posts; and in all he acquired large and lucrative practice. He frequently returned to England, but never for long; and even after leaving Cuba, in 1876, his temperament would not allow him to rest at home. In the latter part of that year he spent a few months at Malaga; in 1877 he went to Rome, where he remained for some months, and as a result of his observations he contributed to our pages an article on the Action of Malaria on the Human Organisation, in which he set forth the views of Professor Bacelli on the influence of malaria on the spleen; and in 1878 he visited Cyprus, and afterwards read a paper on the peculiar malarial fever of that island before the Medical Society of London. In 1878, Dr. Sullivan, through the President of the Royal College of Physicians—Sir Risdon Bennett—was appointed Physician to the British Hospital at Oporto; but before the end of the period of three years, for which he had accepted the appointment, his health gave way, and he was compelled to return home. He never recovered from the effects of his hospital work and private practice in Portugal; and he died at his residence in Kensington, in June last, at the age of sixty-five. Dr. Sullivan was a man of good education, general and professional, a careful observer, a keen student, and an able practitioner. His chief contribution to medical literature was a small volume on "The Endemic Diseases of Tropical Climates, with their Treatment," which was published in 1877—a work of considerable merit; and we understand that he has left the manuscript of a treatise entitled "A Comparative View of Maladies under Different Climates."

## HEALTH APHORISMS BY DR. FRANK HAMILTON.—

1. The lives of most men are in their own hands, and, as a rule, the just verdict after death would be *felo de se*.
2. Light gives a bronzed or tan colour to the skin; but where it uproots the lily it plants the rose.
3. Mould and decaying vegetables in a cellar weave shrouds for the upper chambers.
4. A change of air is less valuable than a change of scene. The air is changed every time the direction of the wind is changed.
5. Calisthenics may be very genteel, and romping very ungenteel; but one is the shadow, the other the substance of healthful exercise.
6. Blessed is he who invented sleep; but thrice blessed the man who will invent a cure for thinking.
7. Milk drawn from a woman who sits indoors and drinks whisky and beer is certainly as unwholesome as is milk from a distillery-fed cow.
8. Dirt, debauchery, disease, and death are successive links in the same chain.—*Louisville Med. News*, August 25.



## MEDICAL NEWS.

**THE ROYAL UNIVERSITY OF IRELAND.**—The Examiners in the Faculty of Medicine have recommended that the following candidates shall be adjudged to have passed the examinations for the undermentioned degrees and diplomas respectively:—

*Doctor of Medicine.*—R. A. Barber, E. C. Biggar, J. J. Browlee, W. Calwell, A. A. G. Dickey, J. Ellison, D. P. Gaussen, J. Lennox, A. Lindsay, J. A. Lynch, W. R. A. M'Alister, M. M'Auley, J. M'Caw, J. M'Ninch, J. A. M. Macaulay, H. Massey, J. Meek, J. Mitchell, A. P. B. Moore, R. Sayers, H. J. Taylor, J. Taylor, S. Wallace, all of Queen's College, Belfast; H. C. Brannigan, Queen's College, Belfast, and Edinburgh School; B. Wilson, Queen's College, Belfast, and University of Edinburgh; R. Barry, W. Barter, J. W. Bullen, J. Cagney, R. H. Hall, G. J. W. Johnston, R. E. Kelly, J. MacMahon, W. J. Moynahan, J. O'Connell, D. O'Mahony, P. Quinlivan, J. M. Sheedy, J. H. Swanton, E. C. Ward, C. G. Woods, all of Queen's College, Cork; R. W. Henderson, R. M'Elwaine, A. E. Morris, W. H. Thompson, P. B. White, all of Queen's College, Galway; J. Carroll and P. J. Doyle, of Queen's College, Galway, and Catholic University School; J. B. Jackson, Queen's College, Galway, and Ledwich School; J. M'Glynn and W. Watters, of Queen's Colleges, Galway and Belfast; W. Atterbury, T. D. Kirk, S. J. Moore, C. O'Donel.

*Bachelor of Medicine.*—D. Lee, Queen's College, Cork; J. F. O'Carroll, Catholic University School.

*Master of Surgery.*—R. A. Barber, E. C. Biggar, W. Calwell, W. Graham (Manchester), J. Lennox, J. A. Lynch, W. R. A. M'Alister, J. Meek, J. M. Orr, R. Sayers, all of Queen's College, Belfast; H. C. Brannigan, Queen's College, Belfast, and Edinburgh School; B. Wilson, Queen's College, Belfast, and University of Edinburgh; A. M. Johnson, Queen's Colleges, Belfast and Galway, and Ledwich School; W. Barter, H. E. Brown, J. W. Bullen, J. Cagney, R. H. Hall, R. E. Kelly, J. MacMahon, W. J. Moynahan, D. O'Mahony, P. Quinlivan, J. M. Sheedy, J. H. Swanton, E. C. Ward, C. G. Woods, all of Queen's College, Cork; J. A. Neeson, Queen's College, Cork, and Carmichael School; R. W. Henderson, C. M. Mitchell, A. E. Morris, W. H. Thompson, P. B. White, all of Queen's College, Galway; J. Carroll, Queen's College, Galway, and Catholic University School; J. B. Jackson, Queen's College, Galway, and Ledwich School; W. Watters, Queen's Colleges, Galway and Belfast; J. F. O'Carroll, Catholic University School; G. W. Weir, Royal College of Surgeons; T. D. Kirk, S. J. Moore, T. Pritchard, R. G. Thompson, F. G. Tooker.

*Diploma in Obstetrics.*—J. J. Brownlee, W. G. Hanna, W. R. A. M'Alister, all of Queen's College, Belfast; B. Wilson, Queen's College, Belfast, and University of Edinburgh; W. Barter, J. Cagney, R. H. Hall, G. J. W. Johnston, R. E. Kelly, W. J. Moynahan, J. O'Connell, D. O'Mahony, P. Quinlivan, M. J. Sexton, J. M. Sheedy, J. H. Swanton, C. G. Woods, all of Queen's College, Cork; F. G. Tooker.

The public meeting of the University for the conferring of degrees will be held in the University Buildings, Earlsfort-terrace, Dublin, on Thursday, the 25th inst.

**KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.**—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 8, 9, 10, and 11, the following candidates were successful:—

*To Practise Medicine.*—William George Butler, Bushy Island, Limerick; John St. Leger Clarke, Dublin; Constance Verney Fawcner Hitchcock, London; Francis Octavius Hodson, Bishop Hatford, Herts; Jeremiah Thomas Martin, Clogheen, co. Tipperary; Alphonsus William Moloney, Dublin; Thomas Joseph O'Donnell, Consett, co. Durham; William Langford Symes, Dublin.

*To Practise Midwifery.*—John St. Leger Clarke; Thomas Farrelly, M.D.R.U.I., Bailyborough, co. Cavan; Wm. Gordon Hanna, M.D.Q.U.I.; Magherafelt, co. Londonderry; Constance Verney Fawcner Hitchcock; Francis Octavius Hodson; James Macpherson Lawrie, M.B. Glasg., Glasgow; William Nicholson McWilliam, M.D.Q.U.I., Banbridge; Alphonsus William Moloney; Thomas Joseph O'Donnell; John Wilgar Taylor, M.D.R.U.I., Belfast.

At the quarterly First or Previous Professional Examination, held on Monday, October 8, and following days, the undermentioned candidates were successful:—

Clarinda Boddy; Catherine Jane Urquhart.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have, under the provisions of the Supplemental Charter of December 12, 1878, been duly enrolled Members of the College:—

Andrew Richard Cowell, 1864, Rathmines; George Henry Ormsby, 1869, High Barnet; Espine Charles R. Ward, 1870, Surgeon A.M.D.; William Crozier, 1877, Dublin; O'Connell John Delahoyde, 1877, Dublin; Edward Bennett, 1878, Sandymount.

**APOTHECARIES' HALL, LONDON.**—The following gentleman passed his examination in the Science and Practice of Medicine, and received his certificate to practise, on Thursday, October 11:—

Bryceson, Ebenezer, Shooter's Hill, Kent.

## DEATHS.

EVANS, THOMAS, second surviving son of the late Edward Evans, Senior Surgeon, Cardiff, M.R.C.S., L.S.A., J.P., Freeman and Alderman of the Borough of Cardiff, aged 69.

FASKEN, WILLIAM, M.D., Deputy Inspector-General (retired) of Hospitals and Fleets, at 21, Fairholme-road, Baron's Court, West Kensington, on October 11, in his 64th year.

HUGHES, JAMES SHERIDAN, M.D., H.M. Emigration Service, at Colombo, Ceylon, on September 6.

LENEY, GEORGE, M.R.C.S., L.S.A., late of Maidstone, at 2, Bentinck-terrace, Regent's-park, on October 11, aged 71.

OSBORN, JOHN, M.D., F.R.C.S., of Longdown Lodge, Sandhurst, on October 13.

SPILSBURY, THOMAS, M.R.C.S., at Highbury, St. Leonard's-road, Eastbourne, on September 10, aged 43.

## VACANCIES.

**BIRKENHEAD BOROUGH HOSPITAL.**—Junior House-Surgeon. Salary £30 per annum, with board, lodging, and washing. Candidates must possess registered medical and surgical qualifications. Applications, with testimonials, to be sent to the Chairman of the Weekly Board, on or before October 22.

**BIRMINGHAM AND MIDLAND EAR AND THROAT INFIRMARY.**—Assistant-Surgeon. (For particulars see Advertisement.)

**BOROUGH OF BIRMINGHAM HOSPITAL FOR INFECTIOUS DISEASES.**—Medical Superintendent. (For particulars see Advertisement.)

**BRADFORD INFIRMARY AND DISPENSARY.**—Dispensary Surgeon. Salary £100 per annum, with board, residence, and washing. Candidates must be registered as legally qualified medical and surgical practitioners. Applications, stating age, with copies of recent testimonials as to moral character and professional ability, to be forwarded to the Secretary, endorsed "Dispensary Surgeon," on or before October 25. The election will take place on November 2.

**BRIGHTON AND HOVE DISPENSARY.**—Resident House-Surgeon. Salary £140 per annum, with furnished apartments, coals, gas, and attendance. Candidates must be Members of one of the Royal Colleges of Surgeons of Great Britain or Ireland, and Licentiates of the Royal College of Physicians of London, or Licentiates of the Society of Apothecaries of London, and registered under the Medical Act. Diplomas, certificate of registration, and testimonials (under seal), to be addressed to the Chairman of the Committee of Management, Brighton and Hove Dispensary, Queen's-road, Brighton, on or before November 5. The election will take place on December 4.

**CHELTEMHAM GENERAL HOSPITAL.**—Assistant House-Surgeon. Salary £80 per annum, with board and lodging in the Hospital. Candidates must possess at least one registered qualification and be unmarried. Applications, stating age, with testimonials, to be sent to the Hon. Secretary, on or before October 24.

**CHICHESTER INFIRMARY.**—House-Surgeon and Secretary. Salary £100 per annum, with board, lodging, and washing. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Chairman of the Committee, on or before October 22. The election will take place on November 8.

**CHICHESTER INFIRMARY.**—Assistant House-Surgeon. Salary £20 per annum, with board, lodging, and washing. Applications to be sent to the Chairman of the Committee, on or before October 22.

**DENTAL HOSPITAL OF LONDON (LONDON SCHOOL OF DENTAL SURGERY), LEICESTER-SQUARE, W.**—Lecturer on Dental Anatomy and Physiology. (For particulars see Advertisement.)

**NORTH-WEST LONDON HOSPITAL, KENTISH TOWN-ROAD, N.W.**—Surgeon. Candidates must be Fellows or Members of a Royal College of Surgeons of the United Kingdom. Applications, with testimonials, to be sent to the Secretary, on or before October 23.

**ROYAL BERKS HOSPITAL, READING.**—Assistant House-Surgeon. (For particulars see Advertisement.)

## UNION AND PAROCHIAL MEDICAL SERVICE.

\*\*\* The area of each district is stated in acres. The population is computed according to the census of 1881.

### RESIGNATIONS.

*Bridport Union.*—Mr. H. E. Norris has resigned the Fifth District: area 8670; population 1738; salary £44 per annum.

*Ely Union.*—Mr. W. B. Hunter has resigned the Littleport District: area 31,030; population 7142; salary £45 per annum.

*Flaversham Union.*—Mr. William Ernest Dring has resigned the Third District: area 12,790; population 3771; salary £73 per annum.

*St. George's-in-the-East Parish.*—Mr. J. N. Cooper has resigned the Infirmary and the Workhouse.

*Sheffield Union.*—The office of Resident Medical Officer of the Workhouse is vacant by the resignation of Mr. Charles F. Coombe. Salary £100 per annum.

### APPOINTMENTS.

*Ongar Union.*—Thomas Spurgin, M.R.C.S. Eng., L.R.C.P. Edin., to the Fourth District.

*St. George's Union.*—Henry A. Fotherby, M.R.C.S. Eng., L.S.A., as Assistant Medical Officer at the Infirmary.

*Woodstock Union.*—Alexander H. Mair, B.M. and M.C. Aber., to the Workhouse. Thomas McClure, F.R.C.S. Ire., L.R.C.P. Edin., to the Second Woodstock District.

DR. FRANCIS TROUP has been appointed Assistant Medical Officer of the Longmore Hospital for Incurables.



**KING'S COLLEGE, LONDON.**—The Entrance Scholarships and Exhibitions have been awarded as follows:—Warneford Scholarships—I. Penny; H. C. Addison and H. B. Osburn (*æq.*). Sambrooke Exhibitions—H. P. Ward and I. Penny. Science Exhibitions (Clothworkers')—R. B. Anderson, C. H. Wordingham; E. W. Davies and E. Ridewood (*æq.*, *prox. acc.*).

**GEOLOGICAL SOCIETY OF GLASGOW.**—At the first meeting, held on Thursday evening last, Mr. John Young, F.G.S., exhibited a specimen of *scyelite*, a new rock-substance from the neighbourhood of Reay, in Caithness-shire, and of this important find he gave an interesting account, with an analysis, showing it to consist of silica, ferric oxide, and magnesia.

**MISS BEATRICE CHIGSTON.**—This lady, of convalescent-home celebrity, has been engaged for the past two months in going from place to place, holding meetings for the purpose of obtaining aid for the extension of Broomhill Home for Incurables, Kirkintilloch. A wing is now being added, which will enable the directors to receive special cases of incurable disease. Miss Chigston has done so much already, that we can but wish her success in her charitable object.

**GLASGOW MEDICO-CHIRURGICAL SOCIETY.**—At a meeting of the above Society of Glasgow, held in the Faculty Hall, the following gentlemen were appointed office-bearers for the session 1883-84:—President: Dr. W. T. Gairdner. Vice-Presidents: Drs. Alex. Robertson and Hugh Thomson. Council: Drs. Robert Forrest, Lapraik, D. McLean, J. G. Woodburn, Wm. Whitelaw (Kirkintilloch), W. A. Wilson (Greenock), R. Cowan, and J. A. Lothian. Secretaries: Drs. W. L. Reid and J. W. Anderson. Treasurer: Dr. Hugh Thomson.

**RUPTURE OF THE BLADDER IN A RAILWAY ACCIDENT.**—An inquest was held, last week, relative to the death of a telegraph messenger, aged fifteen, who had fallen between a railway-carriage and the platform at King's Cross Station, while the train was still in motion. The injury was not recognised when the boy was first seen at St. Bartholomew's Hospital, as there were then no external signs of it; but the same evening he was brought back with evident rupture of the bladder, and an operation was at once performed. The boy died four days later of exhaustion.

**CHARING-CROSS HOSPITAL.**—A grant of £350 has been made by the National Aid Society for the Relief of the Wounded in War to Mr. Cantlie, of Charing-cross Hospital, for the equipment of an Ambulance Company formed of the students of the Charing-cross Medical School. The sum is to be expended in the provision of the necessary ambulance material, and the Committee, in making the grant, pronounce this training of medical students in field hospital work as a pastime to be of the greatest importance in its bearing on the Regular and Volunteer services.

**FEVER IN THE METROPOLIS.**—At the meeting of the Asylums Board on Saturday last it appeared, from the returns from the fever hospitals, that 162 cases had been admitted, as against 157 in the previous fortnight, and these numbers were spread over the five asylums of the Board in all parts of the metropolis. During the fortnight 21 had died, and 45 had been discharged; leaving 549 under treatment, as against 452 a fortnight ago—an increase of 97. Of these large numbers, 441 are scarlet-fever patients; there is only 1 typhus case, and 105 are cases of enteric fever. In regard to small-pox, during the fortnight 20 cases had been admitted, 6 had died, and 19 had been discharged; leaving 54 under treatment, as against 59 a fortnight ago.

**OINTMENT IN CONJUNCTIVAL CATARRHAL OPHTHALMIA.**—Dr. Warlomont, of Brussels, recommends the following formula:—Red oxide of mercury five to ten centigrammes, balsam of Peru one drop, and vaseline five grammes; the oxide to be thoroughly well rubbed up with the balsam before incorporating it with the vaseline. A portion the size of a small pea is to be introduced at night between the eyelids, when the mucus secreted by the inflamed conjunctiva induces adhesion of the eyelids. In very chronic cases, and especially when the papillæ of the mucous membrane are engorged and give it a velvety appearance, the most conspicuous parts should be gently touched once a day with sulphate of copper, washing the part afterwards with cold water.—*Union Méd.*, October 2.

## VITAL STATISTICS OF LONDON.

Week ending Saturday, October 13, 1883.

### BIRTHS.

Births of Boys, 1230; Girls, 1224; Total, 2504.

Corrected weekly average in the 10 years 1873-82, 2647.4.

### DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	758	680	1438
Weekly average of the ten years 1873-82, } corrected to increased population ...	775.5	731.8	1507.3
Deaths of people aged 80 and upwards ...	...	...	58

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	...	6	6	5	5	...	1	...	2
North ... ..	905947	3	11	11	5	7	...	13	1	6
Central ... ..	282238	...	...	4	3	...	...	1	2	1
East ... ..	692738	...	8	16	5	1	2	5	...	6
South ... ..	1265927	...	7	20	6	9	...	3	...	11
Total ... ..	3816483	3	32	57	24	22	2	23	3	26

### METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	...	30.012 in.
Mean temperature ... ..	...	...	...	...	...	...	51.4°
Highest point of thermometer ... ..	...	...	...	...	...	...	62.1°
Lowest point of thermometer ... ..	...	...	...	...	...	...	40.6°
Mean dew-point temperature ... ..	...	...	...	...	...	...	49.0°
General direction of wind ... ..	...	...	...	...	...	...	S.W. & S.E.
Whole amount of rain in the week ...	...	...	...	...	...	...	0.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 13, in the following large Towns:—

Cities and Boroughs	Estimated Population to middle of the year 1883.	Births Registered during the week ending Oct. 13.	Deaths Registered during the week ending Oct. 13.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ... ..	3955814	2504	1438	19.0	62.1	40.6	51.4	10.78	0.00	0.00
Brighton ... ..	111262	74	35	16.4	61.0	43.0	51.3	10.73	0.00	0.00
Portsmouth ... ..	131478	105	34	13.5	...	...	...	...	...	...
Norwich ... ..	89612	60	28	16.3	...	...	...	...	...	...
Plymouth ... ..	74977	50	24	16.7	62.0	37.8	50.6	10.34	0.01	0.03
Bristol ... ..	212779	122	80	19.6	61.0	39.0	51.6	10.90	0.00	0.00
Wolverhampton ...	77557	46	36	24.2	61.3	34.3	48.9	9.39	0.21	0.53
Birmingham ... ..	414346	266	141	17.7	...	...	...	...	...	...
Leicester ... ..	129483	87	29	11.7	64.2	39.2	51.4	10.78	0.16	0.41
Nottingham ... ..	199349	154	87	22.8	66.1	37.3	50.5	10.28	0.14	0.33
Derby ... ..	85574	61	21	12.8	...	...	...	...	...	...
Birkenhead ... ..	88700	63	32	18.8	...	...	...	...	...	...
Liverpool ... ..	566753	363	256	23.6	60.9	44.7	52.2	11.22	0.21	0.53
Bolton ... ..	107882	70	39	18.9	57.4	38.5	49.4	9.66	0.22	0.56
Manchester ... ..	339252	220	177	27.2	...	...	...	...	...	...
Salford ... ..	190465	146	98	26.8	...	...	...	...	...	...
Oldham ... ..	119071	75	48	21.0	...	...	...	...	...	...
Blackburn ... ..	108460	92	48	23.1	...	...	...	...	...	...
Preston ... ..	98564	70	61	32.3	...	...	...	...	...	...
Huddersfield ... ..	84701	47	30	18.5	...	...	...	...	...	...
Halifax ... ..	75591	49	22	15.2	...	...	...	...	...	...
Bradford ... ..	204807	95	74	18.9	62.4	43.2	51.4	10.78	0.04	0.10
Leeds ... ..	321611	226	160	26.0	65.0	37.0	52.0	11.11	0.28	0.71
Sheffield ... ..	295497	159	92	16.3	63.0	32.5	51.4	10.78	0.17	0.43
Hull ... ..	176296	111	85	25.2	67.0	34.0	49.5	9.72	0.36	0.91
Sunderland ... ..	121117	102	41	17.7	...	...	...	...	...	...
Newcastle ... ..	149464	121	85	29.7	...	...	...	...	...	...
Cardiff ... ..	90033	69	32	18.5	...	...	...	...	...	...
For 28 towns ... ..	5620975	5607	3333	20.2	68.0	32.5	50.9	10.50	0.14	0.36
Edinburgh ... ..	235946	127	77	17.0	61.0	35.8	51.1	10.62	0.30	0.76
Glasgow ... ..	515589	399	214	21.7	64.0	34.5	51.2	10.67	0.20	0.51
Dublin ... ..	349385	218	173	25.8	62.0	30.7	50.6	10.34	0.29	0.74

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30.01 in.; the highest reading was 30.35 in. on Monday morning, and the lowest 29.69 in. on Thursday afternoon.



## NOTES, QUERIES, AND REPLIES.

*Be that questioneth much shall learn much.—Bacon.*

## THE BOAST FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by your mentioning in your next issue that I have received the following additional subscriptions to the above fund:—Mr. J. Taylor, £2 2s.; Mr. T. L. Lack, £10; Mr. R. Heald, £2; Mr. H. Stear, £2 2s.; A. B. Z., 10s. 6d. I am, &c.,

1, St. George's-terrace, Plymouth, Oct. 15. GEORGE JACKSON.

## METAPHYSICS IN PATHOLOGY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—My present access to Niemeyer consists of all the passages, copied from his text-book, which appeared to me after a careful search to bear upon the subject under discussion; and a copy of the *seventh* edition, the paging of which does not correspond with that of the *eighth*. In that edition there is nothing further than I am well acquainted with; and I have at the present moment no opportunity of consulting any other, and am therefore compelled to depend upon my notes and my memory. The tone of Dr. Saundby's letter, however, renders further discussion as undesirable as it would be useless. I am, &c.,

Kineton, October 14. KENNETH W. MILLICAN.

## UTERINE DISPLACEMENTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I quite agree with your correspondent, the "Bare-Faced Monkey," as far as he goes. He is quite right in considering the "genu-pectoral" or "genu-manual" positions as preferable to that commonly called the erect. He is quite right, I say, so far as he goes; but he does not go far enough; and, for my part, if a man has the courage of his opinions, let him follow them out to their logical consequences—I hate compromise.

Now, the "genu-pectoral" position, or that on "all-fours," is merely a half-way house between the "erect" so-called (properly, in my opinion, the *inverted*) and the "inverted" so-called (properly, in my opinion, the *normal*) position. This normal position we *Cheiroptera* have maintained unimpaired, and what is the result? Our females are healthy, go through their pregnancies unmurmuring, and through their parturition content! Who ever heard of a bat complaining of lassitude, pain in the upper cervical or left submammary region, "uterine dyskinesia," or any of the other well-known symptoms of slight displacement of the uterus, which render many women's lives a burden, and subject them for years to active treatment at the hands of their inverted brothers the gynæcologists? Our race, at any rate, is in no danger of extinction from sterility, the result of uterine distortions (or their treatment), and spaying. Can the inverted race which calls itself the crown of creation say as much? Besides, if this race knew their own physiology, they would be aware that Nature does her best for them while under her safe control for the first nine months of their existence—in utero, or, as they say, "before they come out." During this time the position of the human embryo nearly corresponds with that of the adult bat. This can be nothing else but an instance of the principle which the late inverted philosopher Darwin has pointed out, that embryology throws light on the former history of a race. It is to this dependent position that the head of the human embryo owes its increasing specific gravity, and the brain its development. The wisdom of the newly born human being contrasts favourably with that of the adult, for if it cannot be said to be silent, it never speaks. This is again a reminiscence of the *Cheiroptera*, and the fact seems to be recognised by an inverted philosopher, who says "Speech is silvern, silence is golden."

Let those who are debating the subject not be content with any half-measures. Their principles are right; let them carry them logically out. They will at least have the satisfaction of feeling that they have returned to the state in which they were created, and which they were never intended to change. I am, &c.,

Bat House, Zoological Gardens.

TOPSY-TURVY.

*Resignation of a Medical Officer.*—Dr. Napier has tendered his resignation of the post of Medical Officer of the Tintern District of the Chepstow Union.

*The Contagious Diseases Acts.*—It is stated in well-informed naval circles that the Admiralty are dissatisfied with the result of the suspension of the Acts, and that a scheme which will overcome some of the objections of Mr. Stansfeld and his friends will shortly come into operation.

*Carcinoma, Liverpool.*—The Charity Commissioners hold a sum of £6507 9s. 9d. belonging to St. George's Hospital for the treatment of certain cases of cancer. A piece of land in the town of Hull, with reversions, bequeathed, will, it is expected, produce about £50,000.

*A Sensible Prohibition.*—The Faversham Town Council have decided to henceforth make the "Market" strictly a food market, and to prohibit the selling of nostrums by "quack doctors" and "cheap jacks"—an example which might be usefully followed by other corporate bodies.

*Dr. Williams.*—It was at Hempstead, in Essex, and not, as you ask, at Hemel Hempstead, that the celebrated Harvey was buried. Unquestionably the best life of the great man was written by Dr. Robert Willis. The finest portrait of Harvey was engraved by Houbraken. His autograph is very rare.

*The French Premier and Vaccination.*—The circular of M. Jules Ferry, ordering the revaccination of all the scholars in French public schools, is energetically protested against by certain of the anti-vaccinationists, who have sent a strongly worded address to the French President of the Council, in which they denounce his circular "before all civilisations" as an "inhuman, retrograde, unscientific, and arbitrary measure."

*Hastings.*—New waterworks, constructed by the Town Council at Filsham, near the West-end of the borough, have just been formally opened. These works will insure the borough an ample supply of deep well-water from the greensand. The water has been analysed by the borough analyst who pronounces it to be of good quality and soft.

*Deaths from Excessive Drinking.*—According to the recently published official volume of judicial statistics, 447 of the inquests held in England and Wales in 1880 resulted in a verdict of "died from excessive drinking." This was 29 more than in the previous year; but, on the other hand, was below the average of the five years, which was 460.

*Dr. John Sykes* writes:—"In 1784, Ray Beckwith, who afterwards practised at York, graduated as M.D. at Edinburgh, presenting as one of the exercises for the degree a thesis, 'De Morbo Psoadico.' As I am unable to find the word *psoadicus* in any dictionary within my reach, I shall be obliged to anyone who can tell me its meaning and derivation."

*A Member.*—The prize is open to Members only. It was founded by Mr. Samuel Jackson, a Member of the College. Essays for this year must be sent in on or before Monday, December 31. The subject for the prize next year is "The Surgical Treatment of Uterine Tumours, both Innocent and Malignant." Members of the Council of the College cannot compete. Write to the Secretary.

*Parochial Scavenging.*—Local boards may be encouraged to undertake their own "dusting," etc., from the official report of the parish—although a poor one—of St. Luke's. It shows that there was sorted from the dust and trade refuse of the parish in the past year the following accumulation of saleable articles:—20 tons of glass, 168 dozens of bottles, 8 cwt. of zinc, 12 cwt. of brass, 14 tons of iron, 4 tons of bones, 7½ tons of rags, and about the same weight of paper.

*An Old Fellow.*—The annual election of Fellows into the Council of the College of Surgeons, as well as the annual election of President and vice-presidents, always takes place in July, and it is provided that if in any year one of the three retiring members of Council be President of the College, he does not go out of office until the succeeding year. The election took place in July last, when Mr. Marshall was elected President, and Messrs. Forster and Savory Vice-Presidents until next July.

*Diphtheria at Canterbury.*—The Medical Officer of Health reports to the Town Council an outbreak of diphtheria. The epidemic prevailed between St. Dunstan's churchyard and the river Stour. It was suggested that the well-water, which is largely used for drinking purposes, was polluted by water from the churchyard. The Medical Officer believed there were cases of diphtheria in other parts of the city, but there being no compulsory registration of infectious disease, he was unable to trace them.

*Suffocated Children.*—Dr. Danford Thomas, at an inquest held a few days since in St. Pancras upon two children found suffocated in bed with their parents, remarked—"If parents were too poor to buy cots, then beds for their children might be made up in boxes. In Germany, he added, parents were not allowed to have their children in bed with them, and if such a law were passed in this country, cases like these would be seldom heard of." According to the coroner's estimate, no fewer than between 120 and 150 children are every year suffocated under similar circumstances. It were time legislation dealt with this terrible loss of life.

*Colonial Meat.*—The consignments of meat to England from our Australian colonies having attained such enormous proportions, and generally arrived here in a good state of preservation quite fit for consumption, the recent wholesale seizure of mutton from New Zealand is to be regretted. Dr. William Collingridge, the Port of London Medical Officer, on examining this meat, found it to be in such a condition as to necessitate its immediate destruction, which was carried out under an order from the police-court. These importations are of vast importance as a matter of food-supply, and we hope the seizure in question will be a warning to the New Zealand importers.

*Water-Supply Fittings out of Repair, a Finable Offence.*—An application was lately made to the presiding magistrate at the Thames Police-court by the solicitor of the East London Waterworks Company for a summons against the owner of certain property in Salter-street, St. George's-in-the-East, because he (the owner) had allowed the water-fittings to be out of repair. It appeared that Section 32 of the Metropolis Water Act, 1871, provides "that if a person supplied with water suffers the fittings to be out of repair, so that water is wasted, he is liable to a penalty not exceeding £5 for each offence." The occupiers of the houses in question were poor people, and the cutting off of the water would be a great hardship and a danger to the health of the people. In the public interest, it was urged that the Company had determined to proceed against the owners of property wherever practicable. In reply to an inquiry of the magistrate how the Company showed that the owner was the person supplied with the water, the solicitor stated that he was the person who paid the rates. The solicitor further explained that in this case alone the waste of water was equal to 230 gallons an hour, or equivalent to the supply of 384 people per day at the statutory rate of ten gallons per head. A summons was granted.



**Marriages: Switzerland.**—An analysis, published by the Statistical Office in Berne, of the marriages during the year 1881, shows that the proportion is very low as compared with other countries. The average was 7.4 per 1000 inhabitants. Out of every 1000 men and 1000 women of marriageable age, 49 men and 39 women were married. These figures show a falling off. On the other hand, the divorces were more numerous than in any previous year. Religious differences are one of the most frequent causes of divorce. The mixture of races in the Confederation is the cause attributed.

**Pure Water on Farms for Cattle.**—A suggestion has been made that Government should insist that holders of land should in every case provide pure water for cattle to drink, and that in no case should sewage-water, drainings from farmyards and other impure sources, be allowed to run into ponds used for drinking purposes for cattle. Some official supervision over the water-supply for the use of cattle on farms is a sanitary provision which is no doubt much needed, both for the well-being of man and beast. Milk-pails are often cleansed with water from these farmyard ponds.

**Stale Scraps of Meat.**—The poor are constantly purchasing meat which is, in fact, quite unwholesome and unfit for human consumption. These purchases consist of scraps of meat, nearly all of which are in a state of decomposition. That officials, whose duty it is to discover such trading, often fail to detect the offenders, was exemplified in the City of London Court recently, when it was shown that a "few stale breasts" of meat sold in the summer at the Central Meat Market to a butcher at Battersea at 2d. per lb. had become the next morning "as green as a cabbage." Fortunately the purchaser refrained from offering them for sale.

**Obscene Bills of Quack Doctors.**—The Home Secretary has advised Her Majesty to remit the remainder of the term of a month's imprisonment passed by the West Riding magistrates upon a man found guilty of posting the obscene bills of a quack doctor. The man had already been nearly three weeks in gaol. The leniency thus shown to the convict does not, we should hope, indicate any indifference on the part of Sir William Harcourt to the offence of which he was convicted, but rather (which we believe to be the fact) that the man was a tool in the hands of others, and not the principal offender. The efforts made by certain notorious medical quacks to advertise themselves and their pernicious specifics by disgusting handbills is injurious to the morality of the community, and perilously misleading to the unwary and ignorant.

**Inflammable Stores in a Hospital.**—It appears that the basement of the Herbert Military Hospital at Shooter's Hill (one of the largest hospitals of its kind in England) is stored with vast quantities of spirits of wine, turpentine, oils, tar, tow, wooden cases, and other highly inflammable materials, besides being the depôt of medical supplies for an army corps, always kept ready for shipment in case of foreign war. It has occurred to the medical authorities of the Hospital, since the explosion at Woolwich, to consider the disastrous results which would arise if a fire should break out in these stores, as the Hospital often contains 500 sick, many of whom are bedridden. It is, consequently, proposed to have an inspection by the officials, and it is probable that before long the combustible stores will be removed. The value of the drugs alone, which are in the same building, is estimated at upwards of £200,000.

**The Dundee Customs Department and the Medical Officer of Health.**—The Local Board of Health have come into collision with the Customs authorities respecting a ship belonging to Liverpool. The latter granted a clean bill of health to the ship, which the Medical Officer of Health has certified was infected. It appears there were four cases of cholera on board, one of which proved fatal shortly after leaving Calcutta, but as there had been no subsequent sickness and the effects of the deceased seaman had been destroyed and the ship disinfected, the Customs granted a clean bill of health, and the vessel came into dock. The Medical Officer of Health visited the ship, however, and issued a certificate that she was infected. The ship was accordingly ordered to the quarantine station, three miles down the river. Without imputing to the Customs officials the want of due care in satisfying themselves under the circumstances of the sanitary condition of the ship, we do not doubt that the Medical Officer exercised a wise precaution in rendering quarantine indispensable.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medizinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Journal of Cutaneous and Venereal Diseases—Dental Record—Revue des Sciences Médicales—Edinburgh Clinical and Pathological Journal—Westminster Review—Students' Journal and Hospital Gazette—Chemist and Druggist—Canada Lancet—Detroit Lancet—New York Medical Record—Western Medical Reporter—Journal of the Vigilance Association—The Christian Million—Newcastle Daily Chronicle, October 13—Journal of the British Dental Association—Canadian Practitioner—Revue de Chirurgie—Revue de Médecine.

#### BOOKS, ETC., RECEIVED—

Abstract of Cases, etc., of the Monsall Fever Hospital, Manchester—On Surgical Diseases of the Kidney, and the Operations for their Relief, by R. Clement Lucas, B.S. Lond., F.R.C.S.—Report on the Health and Sanitary Condition, etc., of Kensington, from September 9 to October 6, 1883—Hospital Management, by J. L. Clifford-Smith—Mémorial of John Deakin Heaton, M.D., by T. Wemyss Reid—Transactions of the Medical and Surgical Faculty of the State of Maryland—A Manual of Midwifery, by Fancourt Barnes, M.D., M.R.C.P.—The Field of Disease, by R. W. Richardson, M.D., LL.D., F.R.S.—The Physiological Factor in Diagnosis, by Dr. Milner Fothergill—Wiesen a Health Resort, by Dr. A. T. Wise—A Manual of Midwifery for Midwives, by Dr. Fancourt Barnes—Plant Analysis, by Dr. G. Dragendorff—Elements of Surgical Pathology, by A. J. Pepper, M.S.—Surgical Applied Anatomy, by F. Treves, F.R.C.S.

#### COMMUNICATIONS have been received from—

Mr. NOBLE SMITH, London; Mr. K. W. MILLICAN, Kington; Dr. JOHN BEDDOE, Clifton; Dr. FRANCIS WARNER, London; THE SECRETARY OF THE GLASGOW MEDICO-CHIRURGICAL SOCIETY, Glasgow; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. J. T. W. BACOT, Seaton; Mr. E. L. HUSSEY, Oxford; Dr. MAHOMED, London; Dr. NORMAN CHEVERS, London; Dr. GAMOER, Manchester; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. HERMAN, London; THE DEAN OF ST. MARY'S HOSPITAL MEDICAL SCHOOL, London; THE DEAN OF THE MEDICAL FACULTY OF KING'S COLLEGE, London; Dr. J. W. MOORE, Dublin; Mr. T. M. STONE, Wimbledon; THE SECRETARY OF THE SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN, London; THE SECRETARY OF THE MEDICAL SCHOOL OF ST. THOMAS'S HOSPITAL, London; Dr. A. T. THOMSON, Glasgow; Mr. G. F. HENTCH, London; Dr. CURNOW, London; Mr. WILLIAM CROOKES, F.R.S., London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SECRETARY OF UNIVERSITY COLLEGE, London; Dr. WADHAM, London; THE DEAN OF GUY'S HOSPITAL MEDICAL SCHOOL, London; THE SECRETARY OF CHARING-CROSS HOSPITAL MEDICAL SCHOOL, London; THE WARDEN OF THE GUILD OF ST. LUKE, London; THE SECRETARY OF THE LONDON HOSPITAL MEDICAL COLLEGE, London; Dr. SYKES, Doncaster; THE SECRETARY OF THE MEDICAL COLLEGE OF ST. BARTHOLOMEW'S HOSPITAL, London; Dr. CRICHTON BROWNE, London; Mr. J. CHATTO, London.

#### APPOINTMENTS FOR THE WEEK.

##### October 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

##### 22. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

##### 23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot for election of Secretary, 7½ p.m.), 8½ p.m. Dr. Ferrier, "On the Progress of Knowledge on the Physiology and Pathology of the Nervous System."

##### 24. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. R. Douglas Powell, "On Cases of Aortic Aneurysm."

HUNTERIAN SOCIETY (London Institution), 8 p.m. Mr. Poland—Specimens. Mr. McCarthy—1. "On a Case of Aneurysm of the Sciatic Artery"; 2. "On Cases of Imperforate Anus." Mr. Charters J. Symonds, "The Reliable Signs of Fracture of the Neck of the Femur."

##### 25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Mr. H. Campbell, "On Habit."

##### 26. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Dr. Bastian—1. "On a Case of Rupture of a Large Aneurysm in the Left Corpus Striatum, with Intraventricular Haemorrhage and extreme Lowering of the Rectal Temperature"; 2. "On a Case of Apoplexy in a Boy aged Fifteen, with Intraventricular Haemorrhage, Convulsions, and Death in Four Hours." Dr. Althaus, "On a Case of Syphilitic Tumour of the Cerebral Membranes." Mr. Golding Bird, "On a Case of Dislocation of the Jaw, Reduced after Eighteen Weeks." Mr. G. R. Turner, "On a Case of Wound of the Plantar Arch; Secondary Haemorrhage on the Thirteenth and Sixteenth Days following the Injury." Living Specimen (8 p.m.)—By Mr. G. R. Turner: A Case of Aphonia following a Head Injury.

MEDICAL SOCIETY (CHARING-CROSS HOSPITAL), 8 p.m. Dr. James Cantlie, "On Cholera." (Visitors invited.)



## METROPOLITAN SANITARY ADMINISTRATION.

*Abstract of the Presidential Address delivered to the Society of Medical Officers of Health, on Friday, Oct. 19, 1833,*

By T. ORME DUDFIELD, M.D.,  
President of the Society.

IN taking this subject for his inaugural address, Dr. Dudfield said that he would consider it under three heads, viz.:—(1) The need of unity in sanitary administration; (2) How such unity may be brought about; (3) The probable benefits of unity being attained. The need of unity could not admit of question, when it was considered that the care of the public health in this greatest of cities was committed to some forty separate authorities, created, it was true, and deriving many of their powers from the same Act of Parliament, yet practically independent, each in its own district; having no bond of connexion, enabling them to combine for the common good; and rarely holding communication with one another, except for some special and local object. The metropolis stood alone in this respect, being the only city that was *not* at unity in itself. In every other large centre of population there was but one authority, deriving a power under codified laws, and dealing with every branch of public health, and ordinary sanitary administration. The ill effects of sanitary disunion in London were not far to seek. As regarded questions of public health, affecting the public at large, and excepting in the case of an emergency, such as an invasion of cholera, when special legislation was called into operation, there were no means of combining the governing authorities for the common defence; no, not even for so necessary a purpose as concerting measures for preventing the spread of a loathsome infectious disease, such as small-pox. An epidemic might break out in one district, and prevail for many days, without the fact becoming known to the authorities in adjoining districts, and hence no combined measures could be taken for checking or preventing its spread at the onset, when alone a successful result was possible. It might be said, indeed, that, lacking "compulsory notification" powers, the authority of the district first invaded might itself remain but too long in ignorance of the outbreak. This, however, only proved the need of unity, for Parliament would assuredly give such, and all necessary, powers to a strong central authority, however unwilling to entrust them to numerous minor and disunited sanitary authorities. A significant illustration of the need of unity was furnished by the history of the hospitals for infectious diseases. Ever since 1866 the sanitary authorities had had power, separately or collectively, to provide hospitals in their several districts, but the power, speaking generally, had not been exercised. And why? Because it was felt that the task was too great to be undertaken by each district separately, and there existed no means of compelling adjoining districts to combine. In the following year the question was solved in a practical way, but almost by accident, as it were, viz., by the enactment of a law which, while providing for the needs of paupers only, had endowed the metropolis, under a single authority, with an admirable system of hospitals that had become available, and with proposed additions would soon be adequate, for the needs of all classes of the population. The fatal stigma of pauperism, until lately, nominally attached to these institutions; but here again, practical common sense had overruled merely legal considerations, for not only did no actual disqualification result from relief administered in the Asylums Board hospitals, but, what was more, the use of them had been greatly stimulated by the practically free admittance given to all comers. The experiment thus unconsciously made had proved so successful, that in the last session a Government measure had been brought in and passed, by which the sanction of law had been given to a state of affairs that had grown up contrary to the provisions of law, and such as had never been contemplated by the Government which introduced, or the Legislature which enacted, the Metropolitan Poor Act, 1867.

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And so it had come to pass that the Society might at length be congratulated on the adoption by Parliament of a principle for which it was the first, or among the first, to contend, viz., "That the assistance afforded to the sick in hospitals for the treatment of infectious diseases ought not to be considered pauper relief." The correlative proposition, "That the hospital treatment of infectious diseases should be severed from any relation with pauperism," would be adopted sooner or later. Meanwhile, the Asylums Board—a Poor-law authority in theory, admittance to its hospitals being obtainable only through Poor-law agencies—had become a sanitary authority in practice, and would become a sanitary authority in law should occasion arise for putting into operation certain provisions of the Diseases' Prevention (Metropolis) Act, 1833, to which they were indebted for the above-mentioned valuable concession. It was a curious feature in sanitary legislation, that while the most complete provision had been made for preventing the spread of animal infectious diseases, by notification of illness, by isolation of the sick, and by disinfection rigidly carried out, no such provision had been made against the spread of human infectious diseases. They had no power to enforce notification; isolation was well-nigh impossible, except by voluntary removal to hospitals; whilst disinfection was only efficient, so far as it was efficient, because sanitary officials, with the consent of sanitary authorities, but without legal obligation, had largely taken the matter into their own hands. Given the necessary powers, a great increase upon the not inconsiderable success of sanitary authorities in preventing the spread of infectious diseases would be attained; but those powers would hardly be conferred until there was a strong central sanitary authority, by which the action of the several local sanitary authorities could be combined for the common good. Even under existing legislation such an authority would be able to confer great benefits on the metropolis, not to be expected so long as sanitary power remained scattered and divided; and reference was made to questions certain to be dealt with by such an authority, as, for instance, provision of healthy dwellings for the poor, viz., by universal and stringent exercise of the powers contained in the 35th Section of the Sanitary Act, 1866, dealing with houses let out in lodgings, baths and washhouses, mortuaries, disinfecting chambers, public urinals and water-closets for both sexes, etc.—sanitary wants very inadequately supplied after more than a quarter of a century of divided sanitary government. A central sanitary authority alone could make adequate provision of these institutions suitably located for general use, without reference to local boundaries. An unconscious striving after unity had occasionally led to something like conflict in jurisdiction, of which recent examples were cited in the Slaughter-houses (Metropolis) Act, 1874, dealing with offensive businesses, and the Contagious Diseases (Animals) Act, 1878, Section 34, dealing with cowsheds, dairies, etc., under which the Metropolitan Board of Works was the "local authority" for the metropolis, the city only excepted. No exception could have been taken to the action of the Legislature had the Board been simply endowed with powers of framing by-laws and general supervision, and had the duty of inspection been entrusted to the local sanitary authorities. Nevertheless, all drawbacks notwithstanding, good results had followed the said legislation, resulting from a practical co-operation between the Board, which had apparent jurisdiction, but no qualified staff, and the vestries, etc., which had a sanitary staff, but no defined jurisdiction. Had the duty of framing by-laws been left to the vestries, there might have been as many codes as "local authorities," despite the labours of the Society to promote uniformity, of which the Board had made such good use in framing their by-laws under both Acts.

The question, "How unity may be brought about?" was next considered, and it was said that two courses were open: the existing sanitary authorities might be swept away, and an entirely new central authority created to rule over an undivided London; or, the present local machinery being retained, a central board might be established to take charge of all great questions affecting the metropolis as a whole; to lay down the principles on which sanitary administration should be carried out, by framing by-laws, etc.; and, generally, to exercise a supervisory control over the work entrusted to the vestries and district boards by the Local Management and other Acts. The central board, so to say,



would be legislative in its functions, the local boards executive; and thus substantial unity in principle, with uniformity in practice, would be attained with a minimum of change. Preference was expressed for the second course, and it was assumed that the manner in which some such a scheme could be brought into practical working might be expected ere long to engage the attention of the Legislature, it being difficult to believe that a system which had worked so well, and had conferred so many benefits on the metropolis, would be cast aside, in order to give trial to a new, a vast, and a doubtful experiment, such as was involved in the adoption of the first course. Taking it for granted that the more conservative scheme would be adopted, the constitution, the jurisdiction, and the duties of the existing governing bodies—Corporation, Metropolitan Board of Works, vestries (twenty-three), district boards (fifteen), and Metropolitan Asylums Board,—out of which the new machinery would have to be evolved, were rapidly passed in review, occasion being taken to point out—(1) that, whatever the defects of the system of administration by the vestries, the labours of these much-abused bodies had succeeded, in little more than a quarter of a century, in making London the best paved, the cleanest, the best drained, the best lighted, and the healthiest great city in the world; and (2) that the Metropolitan Board was, so to speak, the quintessence of vestrydom, its members being vestrymen, and elected by the vestries; facts which, probably, few of those were aware who praised its work—exalting the greater light at the expense of the lesser lights. The continued separate existence of the Corporation and the Metropolitan Board being held to be incompatible, the questions were asked, Shall the Corporation, endowed with enlarged jurisdiction and the necessary powers, become in fact, as in name, the Corporation of London? or, Shall the Metropolitan Board of Works, with similarly enlarged powers, and under whatever name, extend its sway over the City? Prescription, historical prestige, etc., pleaded for the Corporation; while the success that had attended the work of the Metropolitan Board suggested strong arguments in its favour. Whichever body might be chosen, an opinion was expressed in favour of election thereto by the several vestries, etc., in the same way as members of the Metropolitan Board of Works are elected, rather than by direct appeal to popular suffrages, as affording the best prospect of London being well and wisely governed. If, however, the plan of direct election by the ratepayers were chosen, it was to be hoped that one of the most honourable distinctions of the present system, its absolutely non-political character, might be preserved. The new authority, however constituted, should take over the duties, with the hospitals, the ambulances, etc., of the Asylums Board; should have power, and be required, to acquire on equitable terms the property of the water companies; should be the vaccination authority; should elect coroners and registrars of births, deaths, etc.; and should have the control of cemeteries, etc. Such a board need not be more numerous than the present Corporation, which consisted of 232 members—to judge by the amount of work done by the Metropolitan Board with forty-six members,—provided the principal duties were handed over to large committees, with power to act, as was the case at the Metropolitan Board. Officers in plenty were ready to hand, and only one entirely new department would have to be created, that of Public Health. A principal medical officer of health—*primus inter pares*—would take charge of the City—the seat of government—and preside over the department, to which information would be forwarded daily, in respect of the occurrence of specified infectious diseases, by local medical officers of health; and these, in return, would be made acquainted with whatever it behoved them to know in regard to the occurrence of such diseases beyond, but adjacent to, their own districts. In like manner, periodical statistical returns, on a uniform system, would be forwarded to the central office, there to be collated and tabulated for general use. An annual report by each local medical officer of health, based on an agreed plan, would be prepared, printed, and transmitted, at a specified time, to the central office, to become the basis of a report by the principal medical officer, dealing with the metropolis as a whole. In this way, and assuming compulsory notification to exist, medical officers would be kept informed of the state of the public health, would become speedily cognisant of the beginning of an epidemic, and thus they might hope for

much success in efforts for “checking and preventing the spread” of infectious diseases, one of the principal duties assigned to them by the Act to which they owed their official position. The central authority being thus provided, and unity in sanitary administration brought about, the “probable benefits to be expected from such unity” were considered. Codification of sanitary laws was put in the forefront; next, compulsory notification and provision of hospitals—the latter being regarded as the more important, because hospitals almost infallibly led to voluntary notification, whereas even compulsory notification without hospitals was robbed of great part of its value. The fact that hospital provision would soon be adequate was again referred to, and an opinion expressed that the hospitals should come under the control of the central sanitary authority. For a year, at least, under Section 7 of the Diseases’ Prevention (Metropolis) Act, 1883, the nominal stigma of pauperism would not attach to the hospitals, and the Society should make an effort to get those provisions made permanent, the opportunity being too good to be let slip, seeing that the President of the Local Government Board was with them, he having in 1878, and again in 1879, introduced a Bill “to remove disqualification by medical relief for infectious diseases.” By every means the sick should be encouraged to enter the hospitals—often the only means of securing isolation—even as the Hospitals Commission put it, “by the bribe of gratuitous treatment.” Increased powers of compulsory removal were necessary in case of persons not able to be “safely isolated” and “properly treated” at home. The ambulance system was, or shortly would be, perfect; a riverside wharf was in course of being acquired; an ambulance steamer already existed; ship and land hospitals too; and soon a great convalescent home would be taken in hand. Such were some of the benefits *quâ* infectious diseases already conferred by a single authority, or to be expected with the advent of the new Central Sanitary Authority.

Other branches of sanitary administration were successively passed in review. The water-supply should be in the hands of the central authority, who would provide an abundant supply of potable water from a pure source. Baths and washhouses, mortuaries, disinfecting chambers, public conveniences for both sexes, etc., would be provided, and stud the metropolis uniformly, so as to meet the wants of all classes. Slaughter-houses and cowsheds would be handed over to the local authorities for purposes of inspection, the central authority framing by-laws for regulating these and other businesses, and private slaughter-houses would in time give place to public abattoirs. The Public Health (Dairies, etc.) Bill would doubtless be re-introduced next sessions, and when the dairies and cowsheds throughout the country generally were placed under the sanitary authorities, they might hope for protection from milk endemics, such as had lately afflicted the parish of St. Pancras; meanwhile a strong effort should be made by the Society to get the vestries, etc., constituted “local authorities” in London, instead of the Metropolitan Board. Parliament had, lately, once more placed the supervision of bakehouses under these bodies, and although the Factories and Workshops Act, 1883, *quâ* bakehouses, was a very imperfect measure, they should justify the confidence of the Legislature by efficient inspection: the central sanitary authority should have power to frame stringent by-laws for the regulation of bakehouses. Increased power of dealing with recurring nuisances was required, and would doubtless be conceded to a strong central authority. By means of by-laws, the authority would be able to deal effectually with the removal of “refuse” of all kinds, on the lines laid down by the Society. Had time permitted, it would have been easy to enlarge still further on the benefits likely to accrue from unity in sanitary administration—in the shape of a good building Act, sewer ventilation, sewage disposal, and many another topic; but he must bring his remarks to a close, and, in so doing, he desired to repeat, emphatically, his opinion, that in order to good government there was no necessity for material alteration in the constitution or in the work of the vestries and district boards. On the contrary, it might be affirmed that they, or some practically identical, well-organised authorities, would be found necessary for local administrative purposes, whatever the constitution of the new central authority. London was not merely the greatest of cities: it was a province of houses, half a million in number; its population of four millions



was greater than that of some kingdoms, the mere yearly increase being 60,000 souls; its annual rateable value, twenty-eight millions, was immense; whilst its area, exceeding 120 square miles, was so vast, that any attempt to govern it from one centre, without local aid, was but too likely to end in costly and disastrous failure.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,

Late Senior Physician and Professor of Medicine, Medical College and Hospital, Calcutta.

(Continued from page 371.)

### CHOLERA ASIATICA MALIGNA—Concluded.

#### Treatment of Cholera.

ANOTHER ground for caution in treating the renal complication is the alleged fact that cholera is apt to lay the foundation of kidney (and may we not suggest of hepatic?) disease. Upon this point I can say little. In civil practice, we have very few opportunities of tracing our patients' after-history. Officers of the A.M.D. might frequently watch men recovered from cholera for long terms, noting their habits of life, and examining the urine from time to time. I have known people who had suffered from cholera who appeared to enjoy fair health for years. In one of my voyages, a P. and O. Co.'s steward came up to me and said that I had brought him through an attack of cholera. He added that he had Bright's disease, and he apparently had it. Assuredly he never had any diuretic stronger than milk from me.

When the kidneys first begin to act we have always to watch the condition of the bladder, and, when needful, to relieve it by catheter. Otherwise it is likely to be unable to act and to become greatly over-distended.

As regards the Liver, there has always been a tendency to use calomel in cholera. When I arrived in India in 1848 I gave it as others did, in frequent large doses, ten grains to a scruple, to *compel* the liver to act. A few years later, Ayres's plan of giving calomel in frequent small doses, with the view of *soliciting* hepatic action, came into vogue. Subsequently I preferred, when the bilious stools were either absent or scanty, or scanty bilious vomiting took their place, to use free counter-irritation by sinapisms, followed by large hot poultices over the whole hepatic region, front and back, and to solicit hepatic action by frequent gentle aperient doses and enemata.

Dr. Aitken says that, in men of intemperate habits, we often see, during the stage of reaction, obstinate vomiting of thick, tenacious, green paint-looking matter, probably bile-pigment acted on by some acid in the stomach or alimentary canal. It is, he considers, a symptom of evil omen, and it often goes on uncontrolled until the patient dies exhausted, and this, although all other symptoms may promise a favourable issue. It may last for a week, resisting all remedies, and proving fatal when the urinary secretion has been restored and all cerebral symptoms have subsided. In England, where cirrhosis of the liver and Bright's disease are much more common than they are in India, this irrepressible vomiting, in men of intemperate habits, probably depends mainly upon the presence of those diseases; as we find in India that where, in strong-looking dysenteric patients, the stomach persistently resists the use of ipecacuanha, the liver is nearly always considerably diseased. My Indian experience gives me no such terror of obstinate bilious vomiting after cholera. Indeed, I am usually glad to see bilious vomiting, regarding it as a very useful flux, only a little in the wrong direction. Here, under the free employment of sinapisms to the hepatic region and pit of the stomach, the evidences of gastric irritation generally subside, and a few salt-and-water enemata effectually solicit the bile to take its natural downward course.

As it is of great importance that we should view this bilious vomiting in its true light, I will quote what Dr. Goodeve says of vomiting in the reaction stage:—"Irritability of the stomach may be caused by some degree of congestion

of its mucous membrane approaching to subacute gastritis, owing to the frequent straining and vomiting, and to stimulants incautiously given. It is not necessarily accompanied by feverishness, but there is generally thirst and burning heat of œsophagus and at epigastrium. The patient cannot retain nourishment at first, the smallest amount being at once rejected. This condition often lasts several days, and requires great care and attention. I do not remember to have seen it fatal. When existing as the only symptom, great debility attends it, and convalescence is often delayed many days by its continuance. Sometimes it passes into a dangerous state of gastro-enteritis."

This description applies to vomiting which has its origin in congestion and irritability of the stomach itself, and not to that vomiting which is caused by a copious regurgitant flow of bile. Still, it fully confirms what I have observed, that it is generally within our power to conduct the vomiting which occurs in the reaction stage of Indian cholera to a successful issue.

My own experience of the state of the bowels in cholo-uræmia is that their action is generally deficient; either there has been constipation, or the stools have been few or scanty.

One of our greatest difficulties in treating cholera arises from the fact that, in Bengal at least, the type of the disease changes, as I have already shown, from year to year, and even from week to week; nay, carefully observed, no two cases of cholera are precisely the same. Familiar as I was with the cholera of Calcutta, the disease which I treated during a great part of 1874 was of a type altogether new to me. It was, doubtless, owing to this variation in type that Dr. Goodeve wrote—"The bowels" [in cholera uræmia] "are sometimes relaxed, sometimes constipated; the evacuations yellow and fœulent; diarrhoea may carry off some urea, and should not be checked." He does not appear to have used purgatives in the cholo-uræmia of cholera.

As then, it is generally found that, when cholo-uræmia sets in, the bowels are more or less confined, the prompt use of castor oil in very moderate doses (two or three drachms), and warm enemata of common salt and *conjee* (rice) water relieve the head symptoms and produce five or six more or less bilious stools in the twenty-four hours. It cannot be too emphatically insisted on, that *prolonged constipation in the reaction stage is always a cause for anxiety*. Restoration of the excretion of bile is quite as important as the renewal of the excretion of urine. No fear whatever of relapse, or even of moderate gastric or intestinal irritation, need attend this evacuant treatment, unless we overdo it. In using moderate enemata we are to bear in mind that the lower bowel has had little or no concern in the recent cholera flux. Hence it may be gently stimulated into action, with a view to a reflex impression upon the liver, without the slightest danger.

Indeed, I believe that, in cases where such gentle evacuant measures fail, stronger purgation is indicated.

We have reason to believe that there is no hope of recovery from cholera in cases where there has previously existed grave organic disease of the kidneys and liver. It is probable that patients with confirmed Morbus Brightii never recover from cholera.

In insisting that an evacuant system is needful in the cholo-uræmia of cholera, I in no way subscribe to the principle of the evacuant system of Johnson, as I have recourse to it not with a view to driving out the specific poison of cholera, but for the purpose of disembarassing and assisting the system in its efforts to free itself from accumulated and retained urine and bile-elements.

The utmost harm is done in cholera by the use of astringents, narcotics, and stimulants *after reaction has set in*, and by irrational attempts to stop vomiting and purging in and after the reaction stage. It is not for us to check nature's own means of clearing the system.

The clinical experience of several cholera seasons gradually established and confirmed in my mind the conviction that we can only prevent the cholo-uræmia of cholera, and successfully treat it when we find it to be present, by a full recognition of the principles set forth above, and by watching the fluctuating conditions of the alvine and urinary excreta as narrowly as seamen watch the glass in threatening weather.

The vast importance of a course of treatment which will enable us to control the cholo-uræmia of cholera is shown



by Dr. Goodeve's statistics of deaths during the reaction stages. In the great home epidemic of 1853-56, 14 per cent. of the deaths were from consecutive fever. In that of the North-West Provinces of India in 1861, 22 per cent. of the fatal cases died in the reaction stage. Dr. John Macpherson shows that, during a period of ten years, one-fifth of the fatal cases of cholera in the Calcutta General Hospital died after the stage of collapse was over.

It is always important to bear in mind that in Cholera, as in true enteric fever, the main incidence of the disease is invariably upon the lower part of the small intestine. Here, principally, the rice-water stools are formed; and, as I mentioned above, this part of the bowel was absolutely occluded in the fatal cases which I examined post-mortem in the Bengal epidemic of 1849. Consequently, we should always examine the right iliac fossa, and counter-irritate there most freely, especially if there be fulness and tenderness.

Although I regard Cholera as a Pernicious Fever, I have seen and heard nothing to show that Quinine has any power of commanding it. Should cholera arise amongst us, every member of our community ought to take a tonic dose of quinine daily. Thus the lives of multitudes would probably be saved, the drug acting as a nervine tonic, promoting healthy digestion. But, as we have already seen that quinine is not *specifically* prophylactic in averting marsh fever, it cannot be relied upon alone as a certain means of preventing cholera (Macpherson).

We, of course, give quinine as a tonic in convalescence. In the outbreak of pernicious fever at Deesa in 1835, the symptoms of which have been detailed above (page 209), quinine was pretty freely used, but "often disappointed expectations." But, at that time, quinine was not relied upon as it deserved to be. In the fever at Bellary, in 1840, Mr. Parry, although a strong believer in calomel, places the following words in italics—"During the intermission it" [calomel] "was frequently combined with quinine, and in this combination it proved eminently serviceable." Speaking of the "Malwa Sweating Sickness," Dr. Murray wrote—"Quinine is the sheet-anchor in this disease, and there are few symptoms that would prevent my giving it." Hence the importance of judging, in any outbreak and in every case, whether we have to deal with Pernicious Fever or True Cholera. "Cholera," says Macpherson, "is not ushered in by rigors: the fluids ejected are yellow, green, or bilious in pernicious fever; in cholera like rice-water."

All my experience tended to show that few things avail more in the management of cholera than *sedulous care and good nursing*. I often told my students that, if I should be attacked, I should wish to be attended by one who imagined that he had discovered a cure for the disease—no matter what, unless it happened to be croton or castor oil, nitrate of silver, or tincture of lytta. (a) The discoverer, when he is, as he usually is, a man of experience, science, and humanity, always surrounds his "cure" with so much wise precaution and sedulous care, and such attention to every turn of the malady, that his patients undoubtedly stand a better chance of recovery than do those who come under a routine system of everyday treatment. Whatever his plan of treatment may be, he will, assuredly, have the largest amount of success, even when the outbreak is at the deadliest acme of its destructiveness, who treats every case as a distinct therapeutic study. This law is enforced by the fact, which I have already strongly insisted upon, that no two types of cholera—nay, that no two cases of this disease are precisely the same. Hence the necessity of not relying wholly upon any specific or routine mode of treatment, but of treating every case throughout in strict accordance with its own particular conditions. On the other hand, Indian physicians are so fully accustomed to the disappointment of losing nearly every case at the first outbreak of cholera, that this ill-success never shakes their confidence in what they have proved to be right principles of treatment. If we treat our cases steadily, upon a system proved by long experience to be rational, we shall probably find that, at the end of an outbreak, at least some 40 per cent. of our cases have recovered. If we change our plan indecisively every time we lose a case, we shall at length come to the decision that our treatment has failed throughout, and that we have left a vast amount of good undone in taking the responsibility which ought to have been held by a man of decision.

(a) All of which enjoyed brief reputation.

I know of no disease in which so much benefit may be obtained from *good nursing* as in Cholera. Sensible nurses may be readily trained, and need have no apprehension whatever that this duty will, in the very slightest degree, add to the danger which they share with every other member of the community. In giving ice, in seeing that the patient does not incur the peril of sudden death by syncope by having his head raised, in attending to the heat of the water-bottles and in applying the sinapisms, in keeping to their work the relays of assistants who apply the dry ginger frictions, in feeding, in encouraging the patient, and indeed in carrying into effect every means of relief and every needful precaution until convalescence is established, an active and experienced nurse is invaluable. It was my frequent remark in India, that my leading measure in the care of my cholera patients was the attendance of Mrs. Sheen, the practised nurse of my cholera ward.

I must repeat that, for a considerable time before I left India, I considered that I possessed certain definite indications which guided me in the treatment of Cholera.

I will not boast that, from the time at which I first entertained these views, and carried them unswervingly into practice, I achieved any marvellous success in the treatment of the cholo-uræmic stage of cholera. I lost a very few patients from cholo-uræmia. I, however, felt that my failures were almost invariably due either to the fact that the patients had faulty organs, or to the circumstance of their having been brought to hospital too late for relief. Whenever these views had fair play, they led to decided success. I ceased to regard this cholo-uræmia as a terrible and irresistible mystery. I felt that I could generally either prevent or encounter it successfully in a patient of fairly sound constitution, whom I treated from the commencement of the attack.

#### *Nourishment in Cholera.*

It is unquestionable that many deaths from Cholera, whether they occur in the stage of collapse or in that of reaction and cholo-uræmia, are, potentially, in a large measure due to starvation. The disease, in its early evacuant violence and paralysis of absorbent action, drains the blood of its fluid, and deprives the solids of the body of all nutriment. If, in the stage of collapse, we give milk, soups, etc., by the mouth or rectum, they are, in my experience, immediately rejected; and, with each vomit and dejection thus excited, the patient's strength goes down—as if, instead of endeavouring to feed him, we bled him. As long as the kidneys and liver are absolutely unable to act, we can scarcely hope to do much towards nourishing and supporting the patient by ordinary "feeding." We, of course, begin cautiously to give nourishment (I preferred milk), in small quantities frequently, as soon as we find that it can be retained; but effectual means of nourishing in Cholera are still an unattained desideratum in therapeutics. At present our main consolation is that we have seen hundreds of patients "pull through" attacks of algide Cholera, in which it has been evident that we were unable to effect much in the way of nourishment until the liver and kidneys had begun to resume their functions. With a heroism which has never been wanting among Indian surgeons, Dr. David Boyes Smith, while acting for me, some ten years ago, as Senior Physician of the Medical College Hospital at Calcutta, gave his blood, I believe, to deliquium, which was transfused into the veins of a hospital patient in the collapse stage. I understood that this noble act injured the physician's health without materially benefiting the patient. I was told this by our students—never by Dr. Smith. It is not exactly blood that is wanting in the vascular system of the dying cholera patient, who retains his due quantity of fibrin and blood-discs. This is proved by the fact that, in Indian cholera, many recoveries take place after hours of algide collapse, and that, in these cases, discharges of hæmoglobin do not attend convalescence; hence we may consider that whatever injury the blood-discs may sustain during the collapse stage is repairable up to a very late period. In the present day, it does not occur in the experience of everyone to see the living blood of a collapsed cholera patient. Some years ago it was suggested that stimulants should be given during collapse, and that then a vein should be opened. By this means, it was conjectured, the circulation would be freed and the heart's working power restored. I, acting carefully upon this suggestion, gave hot brandy-and-water, and opened a vein in the arm of a fine young English sailor in the



collapse stage, his head being kept low. The blood was of very good colour—not “tarry”—but it was distinctly thick, trickling down the arm, and ceased to flow before two ounces had escaped. I wish that it could have been fully examined; but, in our concern for the patient, who sank rapidly, we failed to preserve it. It appeared clear that this blood only wanted serum. I believe that, in Cholera, the blood-discs live quite as long as the man does, and could receive and benefit by a supply of serum up to the moment of the article. What appears to be wanting here is a fluid capable of supplying, in every constituent, the place of that which has been drained away. But the composition of such a fluid and the means by which it may be introduced into the bloodvessels have still to be demonstrated. The practice of transfusing variously-composed saline fluids had been abandoned, as worse than useless, before I went to India. Milk transfusion has appeared to afford some very doubtful promise; but I think that everyone who studies Dr. Benjamin Ward Richardson's most suggestive commentary upon the whole of this question,(b) and reads Dr. T. M. Lownd's practical observations on “Feeding Patients in Cholera Collapse,”(c) will consider that the renewal of the lost constituents of the blood and the administration of direct nourishment during the stage of collapse are points largely open to hopeful research. I believe that few could do more justice to such an inquiry than the advocate of peptonised food prepared by the pancreatic method(d)—Dr. William Roberts, of Manchester.

In closing this chapter I must repeat that no system of treating Cholera can be either scientific or valid unless every step be taken with due regard to the conditions of the kidneys and liver.(e)

(To be continued.)

## PRACTICE OF MEDICINE IN SMYRNA: ON POSITION IN MIDWIFERY PRACTICE.

By JAMES McCRAITH, M.D., F.R.C.S.,  
Surgeon to the British Seamen's Hospital, Smyrna.

FROM experience, it would seem to me that some improvements of no small importance are practicable, with regard to English practice, in this important department of the medical art. I was called in to a case of hand-presentation many years since by an old French practitioner, since deceased. He, of course, adopted the French position: patient on her back, head and shoulders raised and supported by pillows or female assistants, with pelvis brought to edge of the bed, the thighs also supported by assistants at each side, and of course drawn up. The extremities of the child were towards the abdomen of the mother in this case. Our English position in such a case is evidently better than the French, and I begged of my French colleague to allow me to deliver our patient in the English position. He had never seen a patient delivered in such a position, and he willingly consented, on my explaining to him its advantages. The delivery was easily and quickly effected. He quickly saw and appreciated the facility of reaching the feet in this position—the chief difficulty to be met. But he saw and remarked that if the feet were turned towards the mother's back, as often happens, then the French position was much better, and that in such cases the English must be about the worst possible position. And it is precisely to such cases that I would wish to draw the attention of my English colleagues. Thus we have one group of cases (the feet of the child being towards the back of the mother) in which most certainly the English position is the most impracticable that can be adopted; and another (the feet of the child being towards the abdomen of the mother) in which the English is the best of any. As my French colleague

observed, the French position, in cases in which the feet are towards the mother's back, as described above, is infinitely preferable to the English (the worst position possible). But there is a position better than the French, in my opinion, and it is the following:—The feet you are in search of are towards the mother's back; place your patient across the bed, on her right side (the very reverse of the English), head and shoulders low; bring the pelvis slightly over the edge of the bed, legs and thighs well drawn up; and in this position you can use your good right hand, with all its tact and strength, in the most favourable position and circumstances for achieving the object in view, viz., “seizing a foot, turning the child, and completing the delivery.” There is no comparison between the facilities this position gives you in such cases, and the difficulties and consequent dangers you encounter in the English position. I remember reading or hearing somewhere the advice or suggestion “to practise with your left hand so as to be capable of using it in such cases (in the English position).” Can anything be more stupid than this? *Fiat experimentum in corpore vili*. Before you can educate your left hand to make it equally efficient as your right, how many victims (mothers and children) you must make! At what risks, in fact, to the lives entrusted to your care and judgment—as if the English midwifery position were a dogma, one of the Ten Commandments, which must not be violated in the slightest particular! If such were the law, as those of the Medes and Persians, then the alternative would be to bring up a class of accoucheurs with their right hands on their left shoulders for such special cases.

But in the English position in such cases the difficulty of using the right hand is so great as to suggest some such advice. This of itself is enough to condemn it. Its explanation is “tyrant custom.” But surely in a Christian country Mahomet should be brought to the mountain, not the mountain to Mahomet. I learned the advantages of the position I am advocating (patient on her right side) in these cases by practice. I had adopted the French position (patient on the back), when, meeting with some difficulty, I ordered the attendants to pass patient's left leg over, my hand already passed into the uterus, and to gently turn her over on the right side, which was done without my withdrawing my hand. I found such facility in completing the delivery that since then I have adopted it, and explained it to several of my colleagues, who I believe adopt it. To me this point seems clear, and its advantages great. I hope it will be found so by my masters and superiors in this branch of our profession. “Si quid novisti rectius istis, candidus imparte, si non bis utere mecum.” To sum up: in cases of turning, when the child's feet are towards the mother's abdomen, the English position is the best; when the feet of the child are towards the back of the mother, the English is the worst possible position. The French is a practicable position, but the best is, as described above, the patient on her right side.

And now a few remarks on forceps cases—a very important series of cases indeed. I have no hesitation in asserting that the French position is by far the best in all forceps cases. Place the patient seated on edge of bed, or rather in recumbent position, head and shoulders slightly raised, the pelvis slightly overhanging the edge, a female attendant at each side supporting the flexed and drawn-up leg and thigh; and in such position the passage of your forceps is facilitated, and you can see and judge clearly the progress and direction in which you are making traction, and more easily adapt such traction to the different “axes” you are passing. This is decidedly better than the English position, in which you lose the above advantages, and in which the application of the right branch of your forceps is, to say the least of it, awkward and inconvenient, and in unpractised hands may be mischievous. In the French position all your proceedings are easier: you make traction in any necessary direction much more easily and more surely, and therefore better regulated; and you see in what direction to cut much more clearly than in the English position. Your patient may be covered, if she so wishes it, with a sheet. Nearly the whole time when in practice this is the position I invariably adopted, after I had learned its advantages from my colleagues, educated in France, practising here. To any practical accoucheur, I take it, this will be evident; but custom is a very strong barrier to be overcome. “*Nec neos majorum repudiandus*,”—and an accomplished accoucheur

(b) *Medical Times and Gazette*, page 124 *et seq.* of vol. ii. for 1883: “On Feeding by the Veins, and on Intraperitoneal Injection in the Collapse of Cholera.”

(c) *Lancet*, page 123, vol. ii. of 1883.

(d) “Transactions of the International Congress of 1881,” vol. i., page 517.

(e) Since I remarked upon the considerable immunity of patients in the Calcutta Medical College Hospital from cholera, I have called to mind the case of a patient who was attacked in my native male ward. He recovered.



will succeed against many (unnecessary) difficulties. But, nevertheless, there is an easier and a more difficult way of doing everything, and surely the easier and safer should be preferred, as every accoucheur cannot be so accomplished as to encounter any difficulty which may be avoided. To sum up the views put forward in this paper. In all ordinary cases the English position is about as good as any other, and if "supporting the perineum" be accepted as useful or necessary, this support can be given most conveniently and effectually in the English position; but this "supporting the perineum" is a disputed doctrine, and can only be of use in very rare instances, when the head is advancing too quickly for safety, and the support must be given with judgment, lest greater evils than advantages result. It can be practised in the French position, though not so conveniently and effectively as in the English.

In all cases of turning the French position is better than the English; and in such cases, when the feet are to the back of the mother, the English is the worst possible; the French is practicable; but the position on right side, as advocated in this paper, is the best.

### REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

#### NORTH-EASTERN HOSPITAL FOR CHILDREN.

##### SUPPURATION OF LEFT EYEBALL—EXCISION— DEATH—AUTOPSY—ABSCCESS IN PONS VAROLII AND CEREBELLUM.

(Under the care of Mr. RICKMAN J. GODLEE.)

JOHN M., aged thirteen months, was admitted into the hospital under the care of Mr. Godlee on April 10, 1883.

*Previous History.*—The child has been attending, rather irregularly, as an out-patient since February 1, on account of rickets and bronchitis. The mother stated that she had lost one child at six years of age, and that she has two other children at home, alive and well. She has never had miscarriages. The patient had only six teeth. On February 15 there were rhonchi over both sides of the chest; also left facial paralysis; there was no otorrhœa; the child had not had any fits. On March 1 there was conjunctivitis, which had begun three days previously. The child was taken to Moorfields Hospital shortly afterwards, and they recommended the mother to try and get him admitted into a children's hospital.

*State on Admission, April 10.*—The child's condition now appeared very serious. The cornea was sloughing, and the conjunctiva was highly inflamed and chemosed. The temperature was elevated. The child was much wasted, and in a miserable condition. There was no facial paralysis, nor paralysis of the limbs.

April 15.—Temperature continues to rise at night. The child vomits frequently; sleeps badly. The eye appears to be no better; the cornea and iris are blended in one sloughy mass.

21st.—The condition being worse rather than better, Mr. Godlee excised the eyeball. On section, the eye showed pus in the anterior chamber; the cornea was almost destroyed.

May 2.—The child died about 6 a.m.

After removal of the globe, the orbit remained free from inflammation, and healing took place with great rapidity, so that at the time of death, ten days after the operation, cicatrisation was almost, if not quite, completed. The patient, however, showed no signs of rallying. On the contrary, he vomited every day, and lay in a stupid condition, constantly crying out loudly, as if suffering from some cerebral trouble. He was neither distinctly paralysed nor convulsed, but appeared to die of exhaustion.

*Autopsy, fifty-six hours after Death.*—On removing the skull-cap and dura mater, the convolutions of the brain were found to be much flattened. The lateral ventricles were considerably distended with clear fluid. There was no evidence of meningitis or tubercle at the base of the brain. The nerves all appeared healthy. On the left side of the pons there was an abscess-cavity of the size of a small walnut. Close to it, in the left side of the cerebellum,

there was another cavity containing pus, apparently having no connexion with the abscess in the pons. No meningitis about the pons. The other viscera appeared normal, except the right lung, which contained a patch of consolidation.

*Remarks (by Mr. Godlee).*—When first seen, the case was taken to be one of severe strumous ophthalmia. I had not before me the fact that the child had been previously under medical treatment at the hospital, and had suffered from facial paralysis, so that I did not at that time investigate the existence of any cerebral mischief. Looking at it from the light thrown upon the case by the post-mortem, I imagine that the sequence of events was as follows:—First, otorrhœa; secondly, cerebral abscess, or rather abscess in the cerebellum and the pons; thirdly, interference with the fifth nerve as a result of the abscess in the pons, and consequent conjunctivitis and sloughing of the cornea; fourthly, death from the cerebral abscess, the fatal tendency being, of course, not at all affected by the removal of the eyeball. I have little doubt that careful investigation would have discovered other signs of paralysis of the fifth. No note is made as to the condition of the tympana. I believe they were opened, and both contained pus; but this is of such common occurrence in children dying in hospital, that it is an observation of small moment. The case is, I think, interesting and worthy of recording, in spite of the great imperfection of the notes, because it has been often stated that cerebral abscess not unfrequently follows removal of the eyeball, and it has been adduced as a somewhat strong argument against the performance of the operation except under the most urgent circumstances. This appeared to be a case in point, and might easily have been placed on record as such. I have very little doubt, however, that the sequence of events was quite different, and that this should be considered as a case of excision of the eye following cerebral abscess, rather than one of cerebral abscess following excision of the eye. It has also been instructive to myself as a warning to be more careful as to inquiry into antecedent circumstances whenever a case of ophthalmia, especially if unilateral, seems rapidly to be leading to disorganisation of the globe.

**AN ENORMOUSLY THICKENED PERITONEUM.**—Dr. Jacobi related to the Society of German Physicians, New York, the case of a man, aged forty-nine, who had suffered from cirrhosis of the liver for some years, and, having undergone paracentesis abdominis since with advantage, died from hæmorrhage of the stomach. At the autopsy the parietal peritoneum was found thickened by chronic inflammation to the extent of an inch, and contained calcareous masses, which had been mistaken during life for intra-abdominal growths.—*New York Medical Journal*, September 8.

**STATISTICS OF CANCER.**—As a contribution to this subject, Dr. Hofmeier read a paper at the Berlin Obstetrical Society, in which he stated that among 10,000 adult women admitted to the Elizabeth Hospital during the period 1865-80 there were 358 cases of cancer, distributed as follows:—Cancer of the uterus, 169 (47.2 per cent.); breast, 42 (11.7); vagina, 11 (8.07); ovary, 7 (1.96); vulva, 2; clitoris, 1; stomach and liver, 78 (20.3); rectum, 17 (4.7); mesentery, 8 (2.23); face and epicranium, 8; lungs, 5 (1.39); tongue, 4 (1.11); œsophagus, 4; kidneys, 2; brain, 2; common integument, 2; and bladder, 1.—*Berlin. Klin. Woch.*, August 22.

**CASES OF HYDROPHOBIA IN PARIS.**—At the meeting of the Conseil d'Hygiène Publique et de Salubrité on October 12, Dr. Ollivier read a report on the case of an infant, a year old, who was bitten in May, 1881. The wound was not cauterised, and the child continued well until it was two years and eight months of age, when hydrophobic symptoms set in, and it died after thirty-seven hours of suffering. Notwithstanding the long period of incubation (twenty-six months), the reporter concluded that the child died of hydrophobia.—At the same meeting, Dr. Dujardin-Beaumetz reported the case of a child seven years of age, who was seized with hydrophobia sixty-one days after it had been bitten (the wound having been only cauterised with nitrate of silver), and died in two days.—M. Leblanc stated that the number of cases had been somewhat less this year than in the preceding years, but strongly recommended that there should be no relaxation in the execution of the regulations concerning wandering dogs.—*Union Méd.*, October 20.







the murder, should be made the subject of thorough investigation by physicians skilled in probing the mind in health and disease. A man can as readily read all the lessons of the ophthalmoscope at one sitting, and without instruction, as decide on the presence or absence of mental disease without experience and training. It is to be hoped, therefore, that Sir William Harcourt will, as he has judiciously done on former occasions of a like kind, send specialists to examine this convict. If it be shown that there are or were delusions in his mind, we need not worry ourselves with refinements, such as Mr. Justice Denman would probably delight in, as to whether these delusions were insulated or isolated, or transient or self-supporting. Delusions of persecution compromise the whole mind, and deprive their victim of any serviceable knowledge of right and wrong, as certainly as cataract deprives its victim of vision.

#### COMPENSATION AFTER RAILWAY ACCIDENT.

AMONG the many difficult problems which the medical practitioner is called upon to solve, there is no one more perplexing than that of estimating the value of health and life after accident or injury. With the requirements of modern life, the extending employment of machinery, and the facilities for railway travelling, there is unfortunately an increasing number of victims, the result of dangers inseparable from these advanced products of civilisation. When individuals are disabled, they naturally look to those responsible for compensation, and the pecuniary consolation accorded will in great part depend upon the nature and extent of the injuries they have received. This has mainly to be determined by the evidence of the medical man, and there is no physician or surgeon who may not at some period of his career be called upon to form an opinion on the subject. When the calamity to the patient consists of a broken bone or other visible surgical injury, the estimation of the effects and probable sequelæ is comparatively simple, and, moreover, is sooner or later confirmed by the progress of the case. A sufficiently sound judgment can then be arrived at, as to the loss of time and money, or the suffering experienced by the plaintiff. It is very different, however, when there are no such definite objective conditions, and when the claimant after an accident states that, although he bears no external signs of injury, his constitution is shattered, and he is disabled in mind and body. Such persons are said to suffer from shock or concussion, the most typical example of which follows a railway collision. In such an accident any variety of injury may occur to those in the train, depending on its severity and the other conditions of the situation; but at present it is desired to direct attention more particularly to that class of cases in which the traveller at the time receives no apparent serious injury; and though at first he seems only to be slightly shaken, yet subsequently develops a variety of symptoms, of a more or less distressing nature.

A man, for example, is in a train during a collision. He receives a violent shock, is pushed about, and is much alarmed. He soon finds, however, that no bones are broken, and that he is apparently unhurt. After the immediate effects of the fright have passed off, he assists his fellow-passengers, and finally walks home, feeling somewhat shaken, and though for some days he is not quite himself, he otherwise experiences nothing of importance. He goes to business as usual, but feels indefinite malaise, with loss of energy and vigour. This continues for weeks, months, or even years, and these uneasy sensations so increase that finally he has to give up his occupation, and acquires an assortment of symptoms which cause him much distress. These ailments assume a variety of forms, and sometimes simulate diseases of the most

serious character. The patient may be bedridden, unable to attend to his affairs, and reduced to a state of the greatest misery. Such an individual and his friends consider, with justice, that, under the circumstances, he is entitled to compensation from the railway company. This being admitted, the question arises as to the amount of such reparation, and this depends not only on the social position of the claimant, but upon the nature of the injury, its severity, and the prospects of recovery. These are points which the medical man is called upon to decide. Assuming, then, that an individual advances a compensation claim for alleged ill-health as the after-result of such a railway disaster, the first point to be determined is the nature and extent of the disorder under which the patient at present actually suffers, as well as its probable termination. In the second place, it has to be decided what relation the existing disease bears to the accident—whether it was primarily caused by the collision, or whether it was spontaneous in origin. Both of these problems may sometimes be readily determined; more generally their solution is very difficult. In considering the first, the disease may be represented by an infinite variety of forms, some of which are easily recognisable, others extremely doubtful. Obvious functional conditions may arise as the result of emotion or fright, or grave symptoms may ensue which suggest serious organic degeneration. When the sequences of an accident consist, as they frequently do, of these last—namely, pain in the back, paralysis, anæsthesia, loss of mental power, and so on,—the essential point to consider is, how far the nervous system has become impaired. On this subject two somewhat conflicting views are held. There are those who consider that the concussion or shock sets up organic changes, often of an inflammatory type, in the nerve-centres, and that this is the cause of the symptoms. Under such a view it is obvious that the prognosis in advanced cases is very unfavourable, and would materially influence the advice given by a medical witness and the decision of a jury. There are others, however, who maintain that such conditions do not take place, or at all events are very rare. They deny the fact that shock by itself, without direct injury to the spinal cord, can give rise to inflammation of that centre. They consider that there is no evidence of this either clinically or pathologically, and they find that the train of symptoms in the majority of cases can be explained on other grounds; namely, by local injury to the muscles, tendons, and ligaments, by the effects of simple fright or shock, and not unfrequently by the exaggeration or even the manufacture of the invalid condition. The prognosis of all of these states is clearly more or less favourable.

The truth would seem to lie somewhere between these two extremes. Hitherto, the profession has been inclined to favour more exclusively the first of these theories, but doubtless this belief has been carried too far, and many cases, supposed to be incurable, have, after receiving damages, ultimately recovered. As our general experience of the nervous system, and our knowledge of emotional and functional disorders in particular, have advanced, there has been a tendency to see that many of such cases are to be explained by the second hypothesis, and that, although the symptoms are for a time apparently grave, they are not of necessity hopeless. While it is admitted that organic inflammatory change in the central nervous system after indirect injury is rare, it is still uncertain as to whether or not it may take place at all; but a few cases on record, as well as the experience of general surgery, seem to show that such a sequence of events is not impossible.

The second question is even more difficult to settle, namely, the relation the accident bears to the existing state



of the patient. In many cases it may be obvious that the two are intimately associated; in others this is not so apparent. For example, an individual may suffer little or nothing at the time of the disaster, or for weeks or even months after. Should he subsequently develop a nervous disorder, is this an independent disease, or was it primarily created by the collision, or only excited by it in a constitution predisposed to disease? Because a person with a malady shows that some time previously he had been involved in a railway accident, and had even been injured by it, that is no evidence that the particular illness now complained of was caused by the collision. All chronic nervous affections are obscure in their origin, and even where litigation is not in question they are attributed by the patient to a variety of causes, not of necessity the true ones. For example, a man strains himself; he experiences pain in the back, which may trouble him for years. Should he afterwards be afflicted with, say, paralysis agitans, it does not follow that the strain, with its accompanying pain, was the cause of that disorder, although he would probably connect the two circumstances. Nor is it probable that the backache had anything in common with the central lesion, but is simply a muscular or ligamentous affection. Mistakes of this sort are frequently made, even by medical men, and are the result of want of experience or deficient knowledge of nervous diseases.

To decide this, as well as other questions connected with this difficult subject, a careful survey of all the facts of the case must be made. The examination of the claimant should be conducted by able and impartial physicians or surgeons, as well as by competent neurologists well skilled in all the modern methods of research. A thorough investigation into the legal and other circumstances of the case is required, and a thoughtful consideration and careful weighing of both sides of the question are essential to arrive at a just conclusion. With all these conditions fulfilled, and every precaution taken, not unfrequently the position presents many doubts and difficulties, in which case litigation will probably ensue, when it behoves the members of our profession to display impartiality, knowledge, judgment, and temper. It unfortunately too often happens that, under the circumstances, these qualities are conspicuous by their absence amongst medical witnesses, giving rise to unseemly contradictions and acrimonious dissensions. Such unnecessary difference of opinion is probably in general the result of ignorance, and of employing incompetent investigators. Let us hope that less often it is due to partiality and motives of interest. To arrive as nearly as possible at the truth is only to be attained by the employment of skilful and well-informed experts, who, on whatever side they may be called, will approach the question as they would a clinical case or scientific problem, and, without bias or interested motive, give an opinion strictly in accordance with the facts before them.

## THE SANITARY ADMINISTRATION OF LONDON.

THE need of unity in the sanitary administration of the metropolis was the subject chosen by Dr. Dudfield for his address to the Society of Medical Officers of Health, which will be found in another column. By unity he understood not merely uniformity of procedure, but identity of by-laws and facilities for co-operation among the various local authorities. At present there are no fewer than thirty-nine such bodies constituted by the Metropolis Local Management Act, besides several so-called extra-metropolitan district boards, all existing and acting in complete independence one of another. The only semblance of centralisation or combination is to be found in the Metropolitan Board of Works, whose sanitary functions are almost limited to main sewer-

age, and the Asylums Board, which, though properly a Poor-law authority, has had a single sanitary function committed to it by a recent Act, in direct contravention of the principles of Poor-law administration. Such an anomalous state of things is not only without parallel in the civilised world, but, as daily experience shows, is highly detrimental to the public health. Unity and co-operation are only attainable with a central authority empowered to make and alter by-laws that shall be binding on all the subordinate members of the combination, and with a single office, where statistical and other information from all parts of the area shall be received, collated, and registered. The arbitrary and antiquated distinction between the City of London and the metropolis must be abolished, and the whole of London brought under a single jurisdiction. Thus far all are, we believe, agreed; but, as Dr. Dudfield pointed out, there are at least two distinct methods by which the desired unity may be secured. The entire government of the metropolis might be vested in a single authority, like the corporations of Liverpool and Birmingham; or, the local administration being left in the hands of the vestries, the general supervision and legislation might be entrusted to a body, the members of which should be elected by, and from among those of, the local boards. Such is the constitution of the existing Metropolitan Board of Works, and, in a smaller area, of the Court of Aldermen and Commissioners of Sewers, the sanitary authority of the City. This alternative Dr. Dudfield very properly preferred, not solely as being less revolutionary, but on the ground that a system of double election is calculated to secure the return of a better class of men than direct popular representation. It is certain that, under whatever name, such a body will be provided by the long-talked-of Metropolitan Municipal Reform Bill; and we agree with Dr. Dudfield that under the new administration the medical officer of health for the City should, as *primus inter pares*, act as director of his brother officers, and as medical adviser to the central authority.

But here we must stop, and assert our decided dissent from other opinions expressed by Dr. Dudfield. If all vestries were as intelligent as his, and all medical officers of health as able as himself, we might be well content to leave matters as they are; but there is no shutting our eyes to the fact that this is not the case. We feel strongly that the functions of a medical officer of health are, in every sense of the word, inspectorial: he is an inspector of every place, thing, person, and act that affects in any way the health of the community: and he ought to be, like other inspectors, independent of the favour of those over whom he has to watch. The present mode of appointment is as absurd as if the inspectors of shipping, mines, factories, etc., were to be appointed by, and removable at the pleasure of, the owners of ships, collieries, and manufactories. The very class among whom the chief obstructors and offenders against the Sanitary Acts are to be found—owners of unhealthy houses, "jerry" builders, unscrupulous dealers in food, etc.—can always make their influence felt in the deliberations of vestries and local boards, though they may not be as plain-spoken as the town councillor of Sheffield, who maintained that they ought "to be able to kick their own nigger," *i.e.*, their medical officer of health.

If the sanitary administration of London is to be entrusted in the future, as in the past, to local authorities, it will at least be necessary that exclusively local interests should be so far as possible neutralised by the merging of petty parishes in large areas commensurate with the metropolitan boroughs, or, in such parishes as Islington, Kensington, and St. Pancras, that the medical officers of health should be precluded from the more laborious forms of, if not from all, private practice, and, of course, adequately paid, so as



to secure men who intend to do their duty and to take an active interest in their work, instead of seeking the office merely for the sake of a certain addition to their incomes; and, lastly, that the appointments be not simply approved on legal grounds, but inquired into, and, if found to have been "contrary to the evidence" of fitness, reversed by some higher authority, presumably above suspicion of partiality or interested motives—say the Local Government Board, acting on the advice of its medical officer. That some such safeguard is not uncalled for, and that the vestries of the largest may be as incompetent and perverse as those of the smallest parishes, the whole story of Lambeth and its successive medical officers affords ample proof.

### CHRONICLE OF THE WEEK.

THE inaugural meeting of the present session of the Royal Medical and Chirurgical Society was held on Tuesday evening last, and was very largely attended. The renewed vigour which characterised the meetings during the past session, under Mr. Marshall's presidency, showed no signs of abatement on this occasion. This meeting was both a general and a special one: special, in order to elect a Medical Secretary (when the choice unanimously fell on Dr. Richard Douglas Powell), in the room of Dr. Southey, who resigned on receiving an appointment in the Government Lunacy Department; general, for the ordinary work of the Society, when Dr. Ferrier, their Marshall Hall prize-man, gave a brief but lucid address on the advances recently made in neuro-pathology. As we furnish an abstract of this address, and the remarks to which it gave rise, in another part of the journal, it will suffice, in this place, to say that the author handled his subject *en maître*, and more than earned the President's eulogy, that "not many men could have treated such an intricate subject so briefly and yet with such clearness and lucidity,"—a sentiment which found universal acceptance by those present. Brains of dogs and monkeys, with the cortical centres mapped out according to Hitzig and to Ferrier, were shown, as also many casts and photographs of brains illustrating diseases or lesions associated with loss or impairment of function.

THE Society of Medical Officers of Health held their opening meeting on the 19th inst., when Dr. Dudfield, the newly elected President, delivered an inaugural address on "Metropolitan Sanitary Administration," which will be found in another column. All idea of combined action, he contended, whether for the general good or the saving of power, was out of the question so long as the sanitary government of London was in the hands of thirty-nine local and independent bodies, besides two—the Metropolitan Board of Works and the Asylums Board—with a more general jurisdiction, but the last only a sanitary authority in virtue of an accident or fictitious interpretation, if not a contravention, of the law. Dr. Dudfield did not advocate the supersession of the existing district boards and vestries by any new and untried authority, but, leaving the local administration in their hands, would effect the desired unity of action by constituting a General Board, in which he would vest the supervision of the whole, and—what he held to be absolutely essential—the unrestricted power of making and altering by-laws. The members of this Board, whether it took the form of a reformed corporation representing the whole metropolis, or of the Metropolitan Board of Works, including the City in its jurisdiction, should be elected from and by those of the subordinate boards, not by the rate-payers at large. The Medical Officer of Health of the City,

acting as medical adviser to the Board, should receive all reports from the local authorities, inspect, collate, and tabulate them, and issue a general report for the metropolis.

THE anti-vivisectionists lost a great opportunity on Thursday week, when the remains of William Harvey—the arch-vivisector—were ceremoniously enshrined in marble by certain members of the Association for the Advancement of Medicine by Research, acting in their official capacity as President, Censors, and Fellows of the Royal College of Physicians. The whole ceremony was as much a challenge to the Editor of the *Spectator* and his friends, as an Orange procession to the wearers of the Green, and in less degenerate days they would doubtless have set upon the robed physicians with staff and truncheon, seized by force upon the leaden shell, and scattered to the four winds of heaven whatever dust or other relics of mortality it contained. The anti-vivisectionists, however, are wise in their generation; they have discovered a better way of wounding the living than by attacks upon the dead. So the physicians were allowed to complete their curious mediæval ceremony in peace.

THERE is perhaps in this country no other body but the College of Physicians which could have carried out such a function without a loss of dignity. Municipal pageantry invariably excites a smile or a sneer, for it seizes on the slightest and least appropriate occasions to emphasise the fact of its survival. But the ceremonial state of the College of Physicians is so seldom seen out of doors, that when it is at length brought out for a unique occasion, the public greets it with sympathy and respect. We said a week or two ago that the basis of dignity is faith, and the College has not yet felt the influence of the nihilistic attitude common amongst younger members of the profession. The voice of youth is hushed within the portals of Pall-mall, and when Sir William Jenner appears abroad in solemn state, bearing the very caduceus which Harvey must have seen, and which we suppose is but a survival of the divining-rod, the youngest Fellow of the College feels that even the most courteous criticism would be out of place. For our own part, we love these old ceremonies, which tell of the continuity of our art, and of our lineal descent from the men who were great physicians, though they had only their unaided sight and touch and their good sound sense to guide them. The caduceus is, after all, a better emblem of medical art than the bacillum.

ON Wednesday last a testimonial, consisting of an album containing the signatures of the subscribers, and a cheque for £200, was formally presented to Prof. Bentley, who has recently retired from the office of Dean of the Medical Faculty in King's College, after holding it for a period of twenty years. The testimonial was presented on behalf of the committee by Dr. George Johnson; Mr. Bowman, as representing the Council of the College, and the Rev. Canon Barry, as representing its academical staff, adding a few words in testimony of their regard for the services and character of the retiring Dean. Mr. Bentley expressed his gratitude in a speech which was frequently interrupted by the applause of a crowded theatre. It is hardly fair to Prof. Bentley to say of him, as was said at the presentation of the testimonial, that he had never made an enemy, for that is a form of speech often applied to men who but moderately deserve it. It would be a better compliment to say of him that no one ever thought for a moment of becoming his enemy. Throughout his long occupation of his place in the Marsden Library he showed such a sympathetic insight into the minds of those with whom he came in contact, and put himself so successfully on every occasion in their place, that they would



as soon have thought of falling out with themselves as with this kind and single-minded friend. It had been his aim, he said in his speech, to be one with the students in their joys and in their sorrows; and he succeeded so well in it, that even the disgraced student passed out of the College with one unrancorous memory.

THE success of Prof. Bentley in his long Deanship may suggest to other medical schools whether it might not be as well to secure for their dean one who, not being embarrassed by the cares and anxieties of practice, or forced by their increasing stress to resign his office prematurely, might enter more fully into the lives and interests of a long succession of students, and so give increased solidarity to the supporters of the school. A dean, to justify his name, should represent the traditions and the unity of the school over which he presides; he should be a more permanent officer than the lecturers, instead of being less permanent, as he often is at many hospitals; and his eye should be fixed on the success of his hospital, instead of being liable to be drawn away from it by the glitter of fees. Busy as he was in other directions, Prof. Bentley found time to take an interest in every individual of a long line of students; and other deans may rival him in this, though his other qualities may prove beyond their powers of imitation.

IN London, during last week, 205 deaths occurred from preventable diseases, and 47 from more or less preventable accidents. That is to say, if our sanitary legislation had been more satisfactory, our sanitary administration more efficient, and individuals had been more careful and sensitive to their responsibilities, the death-rate for the week might have been under 15·0 instead of over 18·0. These 252 deaths, 66 of which were from scarlet fever, 25 from measles, 28 from diphtheria, and 24 from fractures and contusions the result of negligence or accident, are mostly a real loss to the community. They represent, in many cases, healthy and useful lives, and differ altogether from the other great category of mortality—the 252 deaths from respiratory diseases,—many of which, occurring in worn-out and weakly constitutions, mean only a salutary weeding-out of the population. Zymotic disease pricks for death, blindly; and negligence quite as often selects out of existence the unoffending as well as the careless. There were during the week, instead of the usual allowance of six, only two suicides; and one of these, if, as we imagine, it represents the death of the Afghan student, would have been prevented if it could but have been delayed. Of the twenty-eight great towns only eight had a mortality of over 20·0. It would be interesting to inquire why, while Norwich can send in a return of 11·1, and Bristol one of 15·0, Brighton has a mortality of 21·1. It cannot be right that London-on-the-Sea should have a higher death-rate than London-in-the-Fogs.

DR. KOCH appears to have been somewhat premature in assuming that the cholera infection in Egypt had lost its virulence. Deaths are daily occurring in Alexandria, and towards the end of last week a brisk, though limited, outbreak was reported in a village near Ramleh, previously passed over by the epidemic. It is attributed by some to the percolation of infective matter into a small half-stagnant canal, which supplies the infected village with water; by others, to the discontinuance of sanitary precautions in the decline of the epidemic. That is like leaving open the stable door when the thief has left some steeds against his next visit—a degree of folly which never entered into the calculation of the proverb-maker. But the foolishness of Orientals is beyond the conception of the English

mind. The Minute in which the Egyptian Board of Health has protested against Surgeon-General Hunter's contention that cholera has been endemic in Egypt since 1865, is so remarkable for its folly and insolence that it is worth reproducing. "The Board of Health declares, first, that Dr. Hunter has never, during his short stay in some portions of Lower Egypt, been able to make personal observations which would justify his expressing any such opinion, and that it is perfectly certain that the information collected by him during his voyage has come from persons absolutely ignorant of medicine; secondly, that Drs. Sonsino, Ambron, and Seirra, according to declarations which they have made to the Board of Health, assert the contrary, and that, according to them, endemic cholera has never existed in Egypt." A more satisfactory item from Egypt is the intelligence that Dr. Crookshank has been appointed Medical Inspector-General of Egyptian Gaols—a position in which he will no doubt render able service.

THERE seems to have been lately an epidemic of abortions. Whether the police are more on the alert, or the public conscience is becoming less sensitive on the subject, it is difficult to say; but it is probable that at no time within living memory has the trade of the abortionist been more thriving—at any rate for himself—than at present. The second of the explanations given seems the more likely. No doctor can be blind to the fact that in the ethics of men, and certainly in those of women, the crime of abortion is not nearly so harshly condemned as the law condemns it. Ladies, the pattern of strictness and propriety in all their other dealings, who would shrink with horror from the idea of openly breaking any of the commandments, will propose to their medical attendant that he should put an artificial end to their pregnancy, with almost as much coolness as they would ask him to cauterise a wart; and they will tell him that not only do they see no harm in it, but that, as it would be to the marked advantage of their own health and their husband's temper, it must be virtuous rather than the reverse to accede to their request. We have no desire to comment on the cases now before the public, but it seems rather important to notice the discrepancy between the law's teaching and the public conscience on the subject. The medical conscience is, at any rate in quarters which have the slightest claim to respectability, explicitly on the side of the law, and the question is, whether the lawyers and doctors will have to come down to the level of the pregnant woman's ethics, or raise hers and a more or less sympathising public's up to theirs. Equilibrium must be obtained in some way, or we shall find the juries refusing to convict, as they have so often done in the case of maternal infanticide.

"YOUNG man, if you find no knife and fork laid for you at Nature's table, you had better die." These hard words of Jeremy Bentham's are the comment of one of the daily papers on the death of the poor Afghan student, who last week took prussic acid, because no one in England would take his prescriptions, and pay for them. But it was not because Nature had no place for him that the disappointed Oriental sadly resolved to leave the world. It was because he had not the sense to see what place Nature had kept open for him, but, drawn away by the glitter of Western civilisation, strove to take his seat at a table for which Nature never meant him. If Mahomed Khan had not forsaken men of his own colour, who are crying out for skilled medical help, there is little doubt that he would have found plentiful opportunities of working and feasting at Nature's expense. The fact is constantly being proved to us by repeated examples, that if we try to run an Eastern mind into a Western mould, the former, supple and pliant as it may be,



will be inevitably spoilt, and rendered unfit for future use. It is a mistake to tempt men away from India and other Eastern countries, in order to train them according to a pattern contrived for men of sturdier build. If Orientals are to be indoctrinated in the sciences—and science, like sunshine, is as much for them as for us,—it should be in their own country, by means adapted to their different cast of mind, and, if possible, by men of their own colour. This truth is being borne in upon our Indian authorities, who find that Western ideas must be, so to speak, polarised before they can be a safe illuminant to men of Eastern birth. The idea that English modes of thought must be a heaven-sent blessing to whomsoever they are communicated, is already an exploded fallacy; and the story of the dead Afghan is but another proof of this.

No one who has the future welfare of our hospitals at heart can fail to sympathise with the suggestion of Mr. Samuel Morley and the Vice-Presidents of the Hospital Saturday Fund, that the working men who subscribe to that Fund should be empowered to elect a life-governor to every institution to which they contribute material support. Many of the present governors of our hospitals would, no doubt, enter a strong protest against the admission of any representative of the proletariat to their annual meeting. They have strong ideas on the inviolability of caste, and think that they are according the working man quite sufficient privileges in admitting him to their wards. A few years ago the representatives of the large friendly societies promised the committee of a certain provident dispensary that they would induce five thousand subscribing members to join it on condition of having two representatives on the committee, but it was found impossible to stomach this proviso; the offer was refused, and the societies formed a provident dispensary of their own. The same thing may take place in the not distant future in the case of our hospitals, if some such suggestion as that of Mr. Morley is not adopted. Our hospitals cannot long prosper on the present hand-to-mouth system. The public will soon grow weary of amateur concerts and fancy fairs, and then, as private subscriptions fall off more and more, only two alternatives will be left—either to introduce a provident system on a grand scale, and make the poor support their own hospitals; or else to establish the continental system of State-supported hospitals. No one can doubt which is the juster and healthier arrangement.

THERE are some very noteworthy articles in some of this week's foreign journals. The *Revue de Médecine* contains—"Recherches expérimentales ayant pour but de transformer le Tubercule vrai ou infectieux en corps étranger inerte," by MM. J. Parrot and H. Martin; "Contribution à l'Histoire de l'Orchite typhoïdique," by M. Auguste Ollivier; "Etude critique et clinique de la doctrine des Localisations motrices dans l'Écorce des Hémisphères cérébraux de l'Homme," by MM. Charcot and Pitres; and "Contribution à la Pathologie des Névroses intestinales," by M. Cherchevsky. The *Revue de Chirurgie* contains—"La Maladie kystique des Mamelles," by M. P. Reclus; "De la Gangrène gazeuse foudroyante," by M. Trifaud; and "Note sur la Pathogénie des Kystes dermoïdes," by M. Nicaise. The *Progrès Médical* contains a lecture by M. Simon, on "Fièvres intermittentes chroniques," and one by M. Ch. Monod, on "Tuberculose testiculaire et Castration," and an article by M. Rabatoux, entitled "Nécrose des Os du Nez: Expulsion de la partie centrale du sphénoïde." The *Gazette Médicale de Paris* contains "Un cas de récédive de Zona." The *Gazette des Hôpitaux* contains an article by M. Polaillon, "Sur

l'Incertitude du Prognostic de l'Ovariectomie," and a review on "Erythème polymorphe dans l'Infection puerpérale."

IN the *Centralblatt für Klinische Medizin* are contained abstracts of papers—by M. Afanassiew, on Icterus and Hæmoglobinuria, artificially produced; and by Chvostek, on the Diagnosis of Duodenal Ulcer. Prof. Baumgarten, of Königsberg, contributes an account of his researches into the Pathogenetic Importance of the Tubercle Bacillus to the *Centralblatt für die Medicinischen Wissenschaften*, which contains also abstracts of papers—on the Anatomy of the Larynx, by M. Simanovsky; on the Etiology of Floating Kidney, by Senator; and on certain Microscopic Changes in the Middle and Internal Ear after Diphtheria, by Moos and Steinbrügge. The *Centralblatt für Chirurgie* presents an original paper on a case of Ossifying Enchondroma of the Scalp, by Dr. Baumüller: abstracts of papers—by MM. O. Heubner and J. A. Korteweg, on Diphtheria and Croup; and by D. Bajardi, on the Regeneration of Bone and of Bone-Marrow in the Long Bones—are also contributed. The *Centralblatt für Gynäkologie* contains an account of a Modification of Porro's Operation, by Dr. Heusner; and a report of a paper on Extra-Uterine Pregnancy, read at the late meeting of the Association of German Naturalists held at Freiburg, with an account of the debate following it. In the *Berliner Klinische Wochenschrift*, Drs. Harnack and Mennicke discuss the respective activity of the various preparations of Aconitine at present in use; Dr. Wildt recounts a case of Successful Laparo-Hysterectomy in Cairo; and Dornig, of Laibach, gives the notes of a case of Combined Scarlatina and Variola. The *Wiener Medizinische Wochenschrift* contains papers—by Prof. Dresche, on the Spread of Cholera by means of Inanimate Objects; and by Dr. Pimsch, of Trieste, on a series of cases of Hepatic Abscess following Dysentery.

#### RESECTION OF THE PYLORUS.

THIS operation appears to be gaining in favour at Vienna, and there are at present several cases in the wards of the General Hospital, in which it is proposed to perform it. Hitherto the results have been disappointing. Dr. Wölfler, Professor Billroth's assistant, recently attempted the operation in an advanced case of carcinoma, but the adhesions were so numerous that he was unable to complete it, and had to get over the difficulty by making an artificial connexion between the stomach and the small intestines. The patient, however, died a few hours after the operation. A more satisfactory record will be found in the *Wiener Medizinische Wochenschrift*, Nos. 23 and 24, which contain an account of a successful resection of the pylorus and some observations on a "gastroscopic" symptom of cancer of the stomach, by Professor Mikulicz, of Cracow. The patient was a peasant, twenty-five years of age, the mother of three healthy children. Up to five months previously she had been in perfect health, but since that time had suffered from bad appetite, and discomfort and pain in the stomach occurring some hours after food. For the last three months she had, in addition, suffered from repeated vomiting. On admission into the Cracow Hospital, on February 9, 1883, her condition was as follows:—Nutrition fairly good; skin and mucous membranes pale; both breasts swollen, red, and painful to pressure (the patient having only just weaned her last child), but not diseased; abdomen somewhat distended; abdominal walls thin; in the epigastric region a hard, apparently movable tumour, the size of a goose's egg and painful to pressure, was made out. The stomach was considerably distended, its lower border reaching to three fingers' breadth below the navel. Bowels constipated; urine normal. The



diagnosis of carcinomatous stricture of the pylorus was made. For the two days preceding the operation, which was performed on February 22, the patient had only fluid diet, and immediately before it the stomach was washed out with warm water. The operation was performed in the usual manner, and lasted two hours and a half. The tumour was freely movable. No spray was used, and iodoform dressing without drainage was employed. The portion removed measured three inches in length; and included, of course, the pyloric opening, which was found to be so narrowed that a little finger could scarcely be passed through it. Microscopic examination showed the growth to be a colloid cancer. An enlarged lymphatic gland removed at the same time showed no trace of cancer elements. There was very little shock after the operation, the pulse the same evening being 72, and the temperature 98.5°. On the evening of the second day the patient vomited twice, and several times on the third, fourth, and fifth days; but on the sixth day the vomiting ceased. The vomited matter consisted each time of mucus without any admixture of bile. The pulse and temperature remained normal throughout, except on the fifth day, when the temperature reached 103.5° and the pulse 112; and on the evening of that day the patient had an offensive diarrhoea. During the first five days she took cold water by the mouth, and was fed by the rectum with peptonised enemata. On the sixth day she had soup and eggs, and on the eighth solid food. On the twentieth day the dimensions of the stomach were normal, and the patient suffered from no gastric troubles. On March 22, the twenty-eighth day after the operation, she left the hospital in good health.

From a consideration of the absence of all signs of peritonitis in the case; from the course which the wound took, healing by first intention; from the considerable dilatation of the stomach that existed from the third to the fifth day; and from the character of the vomited matter, Mikulicz considers that the vomiting was due to a complete but temporary obstruction of the new pyloric orifice. The cause of the obstruction he thinks might have been due to an inflammatory swelling of the wound at the pylorus; or the dilatation of the stomach and the weakness of its walls might be insufficient to propel the contents through the new orifice. According to Mikulicz, 32 cases of resection of the pylorus have been published, of which 24 ended fatally, and 8 recovered. Of the 8 successful cases, 2 were operated upon for ulcer of the stomach, and 6 for cancer. Of the 24 unsuccessful cases, 23 were for cancer, and 1 for ulcer. In 21 of the 24 fatal cases the cause of death is given: 15 died of collapse, 1 of inanition, and 5 of peritonitis—the peritonitis in two cases being due to perforation at the seat of union, and in two cases to gangrene of the transverse colon. These four fatal cases of peritonitis, and the case of inanition, were due to causes which at the present time might be avoided. The large number of cases which died of collapse, Mikulicz considers with Billroth to be due to the general marasmic condition of the patients, and to the severity of the operation in those cases where the tumour was large and had formed adhesions to neighbouring parts. Only cases where the patient is well nourished, and the tumour of moderate size and movable, are, he considers, suitable for operation. The future of resection of the pylorus depends, he holds, on improvement in the diagnosis of cancer of the stomach at an early stage, and he looks to the general use of the “gastroscope” as likely to afford valuable aid in that direction. In a large number of cases of cancer of the stomach examined by him, he has found certain appearances and symptoms which may be of use in diagnosis. In a healthy man, the pylorus, examined “gastro-

scopically,” appears as a longitudinal, oval, or triangular slit, or as a circular opening surrounded by close, bright red, mucous projections and folds. Owing to the irritation caused by the instrument and to the inflation, the opening is continually changing its shape, and the folds moving with each contraction of the muscular wall. The fundus of the stomach, on the contrary, remains stationary. In cases of cancer of the stomach he has noticed that the coarse folds are either entirely wanting, the walls being quite smooth, or are only slightly marked; and, secondly, that the movements are altogether wanting. Also in certain cases he has noticed considerable pallor of the pylorus; in others quite a dark cyanotic appearance. In one case the submucous veins were dilated, and of a deep blue colour. No ulceration of the cancerous mass has he ever seen. The explanation of these changes he considers to be, that, the walls of the stomach being infiltrated by cancer, the movable organ is changed into a comparatively rigid tube, in which the formation of folds and the changes in shape cannot occur.

#### CORTICAL CEREBRAL LOCALISATIONS.

REFERENCE has already been made in previous numbers (vide *Medical Times and Gazette*, page 270, and vol. i. 1883, page 616) to a series of papers in the *Revue de Médecine* on Cerebral Localisations, by MM. Charcot and Pitres. The concluding paper of the series, which appears in the October number of that journal, deals with the cases that have been brought forward during the last four years, as opposed to the doctrine of localisations in the cortex of the human brain. In entering upon this part of the subject they very justly observe that those cases alone can be accepted as conclusive which are surrounded, so to speak, by certain guarantees; and the same value should not be attributed to complex cases, or those which have been incompletely studied, as to simple ones, which have been carefully recorded, and are accompanied by an exact and complete description of the situation of the lesions discovered on post-mortem examination. They divide into three groups the cases that ought to be rejected. 1. Cases of intracranial tumour. The reasons for excluding tumours are both numerous and weighty: most cerebral tumours act in different ways at the same time, i.e., they destroy one portion of the brain, irritate another, and compress the remainder; such cases are not, therefore, so simple as they may at first sight appear to be, for irritative lesions always present great difficulties, and the phenomena of compression are often simply inscrutable. Intracranial tumours, no doubt, are well worthy of study, but they can never have the same localising value as partial limited destructions, such, for instance, as softening. The majority of cases of cerebral tumour are eminently complex, and consequently unsuited for the particular line of research under consideration. 2. Complex cases with diffuse or multiple lesions. It is unnecessary to dwell upon this group, for the very essence of a localising lesion is that it should be single and well defined. 3. Cases in which the description is incomplete. In order that a case may be used for purposes of comparison, it is essential that the symptoms during life shall have been carefully observed, and the post-mortem appearances well described. As a general rule, the clinical part of the case is sufficiently well recorded, for it is easy enough to recognise paralysis, contracture, or convulsions, but a methodical and complete examination of the brain is by no means so easy. All cases in which the situation of the lesion is indicated only in a vague manner ought, therefore, to be rejected. The final outcome of their studies is formulated in the following emphatic manner:—“There does not as yet exist a single accurate observation of a destructive lesion outside the motor area having produced permanent



paralysis; nor does there exist a single accurate observation of a destructive lesion of any extent of the ascending convolutions which has not given rise to permanent paralysis of the opposite side of the body."

#### "AN IDEAL DRINK."

A "HOSPITAL PHYSICIAN" writes:—"As I am in perfect accord with your opinion, that beer will continue to be the English national drink, and that a 'light bitter beer brewed from good malt and hops' is a beverage that none need fear—and I would add, that perhaps no doctor without a crochets would forbid,—allow me to point out to your readers that it is probably only those beers belonging to the class of *porter* which are open to the charge of being 'gouty.' It is well known and admitted by those who have seen much of poor man's 'gout in London, that, apart from some hereditary instances, nearly all the cases occur in those who drink inordinately of 'beer,' which means, in London language, the common dark-coloured porter. Gallons of this are frequently drunk per diem by the Thames lighterman, the favourite victim of the gout. Many writers on the etiology of gout, from Scudamore to Garrod, have laid stress on the probable influence of *porter* in its production. These views are endorsed by Prof. Charcot, who further points out that the German beers are not gout-producing. In his book on Senile Diseases the matter is well discussed; and he adds to one of his lectures an interesting historical appendix on English beers, by Dr. Ball, who says that the beers made use of in the United Kingdom may be divided into two great classes. 'Some are rich in colour, but poor in alcohol, deprived of sugar, and ready to undergo acetic acid fermentation; they are, besides, impregnated with a principle obtained by roasting the grain—a fact not unconnected, perhaps, with their pathogenic properties. To this class belong the drinks known under the generic name of *porter*, the use of which is so predisponent to gout. The others, on the contrary, poor in colour, are rich in alcohol, and contain no trace of acetic acid.' It is well for the advocates of beer to be prepared with a little knowledge on its possible relation to gout. It is, of course, not necessary that the non-gouty beers should be rich in alcohol, as witness the drinks of the Vaterland, and our own best 'light bitters.' The more the truth is recognised, that beer in some sort must be, as it has been since the days of Ina King of Wessex (who in 728 promulgated laws with reference to ale and ale-houses), the '*vin ordinaire*' of England, the more likely we shall be to have supplied to our working-classes such a beer as you, sir, have described. This is the line, I feel sure, along which broad-minded philanthropists should work in their desire to improve the condition of the lower classes with reference to their drinks, rather than act in obedience to the one-eyed physiologists and doctors, or the short-sighted moralists, who are in no way struck by the patent and important fact that the use of some kind of so-called 'stimulant' is well-nigh universal, and that nearly everyone requires something other than water with his meals."

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-first week of 1883, terminating October 11, was 967 (540 males and 427 females), and of these there were from typhoid fever 43, small-pox 3, measles 6, scarlatina 1, pertussis 11, diphtheria and croup 28, dysentery 1, erysipelas 6, and puerperal infection 2. There were also 43 deaths from acute and tubercular meningitis, 187 from phthisis, 25 from acute bronchitis, 47 from pneumonia, 117 from infantile athrepsia (36 of the infants having been wholly or partially suckled), and 41 violent

deaths (30 males and 11 females). Although there is a slight increase of deaths upon those of the previous week (30), the low rate of mortality from epidemic diseases continues to prevail. The births for the week amounted to 1246, viz., 609 males (440 legitimate and 169 illegitimate) and 637 females (461 legitimate and 176 illegitimate); 86 infants were either born dead or died within twenty-four hours, viz., 49 males (30 legitimate and 19 illegitimate) and 37 females (29 legitimate and 8 illegitimate).

#### ACORNS.

THE rough autumnal blast is strewing the fields with an unusually plentiful crop of acorns. So thickly studded is earth's grassy lap with this astringent harvest, that one is tempted to inquire what purpose (besides the reproduction of the quercine genus) the acorn may serve in the economy of nature—to what use, medicinal or dietetic, it may be applied by man or beast. In many parts of the country, in nearly all rural districts, in fact, in which we have made inquiry on the subject, acorns are in common use by the rustic population as a medicine in diarrhoea from whatever cause. A store of dried acorns forms part of many a country housewife's domestic pharmacopœia, and the grated powder is administered with good effect in many cases of intestinal flux. Probably, since the acorn contains so very large a proportion of tannic and gallic acids, its operation in such cases is at least as beneficial as that of any tinctures of kino, catechu, rhatany, or other officinal astringent, administered by proper authority. Vast quantities of acorns, as we all know, are also greedily eaten by pigs, deer, and possibly other animals, who become fat and well-conditioned on this fare. It would be interesting if we could learn from some of our veterinary friends, how it is that these creatures can live and thrive upon a diet which, though it may contain some nutritive material, contains also so overwhelming a share of tannic and gallic acids that even the porcine digestive apparatus ought theoretically to be brought to a dead-lock by its use. Is it the fact, may we ask, that pigs, deer, etc., suffer occasionally from costive or obstructive troubles, by the drying up of the intestinal secretions as a result of a free diet of acorns at this season? And would it be possible, may we ask again, to make any use of acorns, crushed or ground, as an admixture in the food of horses, especially those in whom a constant looseness or "scouring" makes sleek appearance and good condition almost an impossibility?

#### THE INDUCTION OF PREMATURE LABOUR.

DR. RUMPE, Assistant-Physician at the Marburg Obstetric Clinic, contributes to a recent number of the *Archiv für Gynäkologie* some interesting statistics of this operation. Professor Dohrn in 1877 published a number of cases occurring in this institution. Dr. Rumpe now relates in detail 14 other cases which have since then been treated in the same way. Putting them all together we have 26 patients, who among them had 106 labours. Of these, 65 came on at full term, with a result of 53 dead, and only 12 living children, or an infantile mortality of 81.5 per cent. Labour was induced prematurely in 41; and of the children, 14 were dead, 27 living, or a mortality of 34 per cent. We should mention that children dying within the first fortnight after birth are reckoned in these statistics as dead. The form of pelvic deformity for which the induction of labour was most frequently undertaken was the generally narrowed flat pelvis, with which there were 43 labours. In 8 of these the conjugata vera measured less than 8 centimetres ( $3\frac{1}{2}$  inches), and the infantile mortality was 50 per cent. In 28 it was between 8 and 8.5 centimetres ( $3\frac{1}{2}$  to  $3\frac{3}{4}$  inches), and in these



68 per cent. of children survived. In 7 the conjugate was more than 8·5 centimetres, and in these 85 per cent. of children lived. The method adopted for inducing labour was the warm vaginal douche (with 1 per cent. carbolic acid solution), used at first three or four times daily, and then every hour or two. If this did not succeed, a bougie was introduced between the membranes and the uterus. The maternal mortality, we are sorry to see, was 7 per cent.

#### THE BRAIN GAUGE.

AMONG the interesting minor points touched upon at the recent meeting of the British Association, was that of the relation and constant ratio existing between the size and capacity of the skull in different races, and the dimensions of the adult female pelvis. The conjugate diameter of the pelvic brim of the mother, it was explained, acts as a gauge of the potential brain-power of the offspring, by forbidding the passage into independent existence of any child having a skull, and therefore a brain, of disproportionate size. This is a fair and rational conclusion, and is fully borne out by the facts and figures regarding still-birth which have been placed on record by various observers. Thus it was shown by Sir James Simpson that the heads of male children measure, on an average, about half an inch more in circumference than those of females, and that, in consequence, a larger number of male than of female foetal skulls are denied passage by the maternal pelvis, causing a considerable numerical excess of male over female still-born infants. It has been shown also, with sufficient clearness, that, broadly speaking, the size and weight of the brain, and therefore the external measurements of the skull containing it, may be taken as a measure of the intellectual power of the individual. There is a philosophical interest attaching to these conclusions, which does not perhaps appear quite on the surface. The bony frame, or diameter of the maternal pelvis, is thus made to serve as a direct measure and means of limitation of the mental capacity. It follows that it is impossible that any race or family should so develop exaggerated or phenomenal brain-power as to cause a deterioration or puny calibre of the osseous and muscular systems. For, the pelvis becoming contracted and ill-developed as the brain and skull became overgrown, the former would gradually exclude the passage of the latter, and the over-intellectual race, with disproportionate cerebral power, produced at the expense of the physical forces, would rapidly become extinct. The converse of this proposition would hold equally good, and the large maternal pelvis, acting, as before, as the gauge of the intellectual power of the offspring, the mother possessing the best physical conformation would become the only possible parent of the son gifted with the largest cerebral development. Intelligent natural selection would lead thus to the choice by men of massive intellect (who might be desirous of reproducing their mental attributes in their children) of wives in whom the roomy and expansive physical type should afford the best chance of the large and highly organised foetal brain passing the gauge. It is perhaps to be regretted that the question of the improvement of the human race by a process of rational, as opposed to natural, selection is one more of theoretical philosophy than of practical possibility.

#### THE TREATMENT OF PUERPERAL CONVULSIONS BY DIAPHORESIS.

IN a former number of this journal (a) we drew attention to a paper by Dr. Carl Breus, of Vienna, on the subject mentioned above. In a recent number of the *Archiv für Gynäkologie*, Dr. Breus gives his further experience of this plan of treatment, which consists, it may be remembered, in

putting the patient into a hot bath, and then wrapping her in blankets until profuse perspiration has taken place. The paper we now refer to relates eleven cases thus treated. In four of them the convulsions came on early in labour, in two towards the end of a prolonged first stage, in one during the second stage of labour, and in the remaining four within a few hours after delivery. Most of them were severe cases. Only one died; ten recovered. Putting these with the cases previously published by Dr. Breus, we have seventeen cases with only two deaths—a proportion of recoveries above the average. The fatal case now reported was that of a syphilitic patient, who came under treatment only after she had had many eclamptic seizures. She died from pelvic cellulitis and peritonitis, the convulsions having ceased four days before her death, and the symptoms showing improvement in the renal condition. Dr. Breus does not recommend that diaphoresis should be used to the exclusion of every other remedy; but, on the contrary, it should be combined with chloroform, narcotics, and such obstetric interference as the case may demand. He has not seen any harm result from the hot baths or the subsequent packing, even when applied to recently delivered women. He does not believe that this measure tends to provoke labour; and, in support of this opinion, gives a case of a patient with Bright's disease (but not convulsions), who had forty-five baths while pregnant, without labour coming on. Dr. Breus thinks it desirable to employ this treatment in pregnant women who are the subjects of dropsy or albuminuria, believing that by it the onset of eclampsia may possibly be prevented. At the end of his paper he gives an interesting quotation from Wigand, who recommended similar treatment as long ago as 1820. But this old writer gives a caution, which we suppose Dr. Breus would not endorse, viz., that the patient should not be allowed to sweat too much.

#### SYPHILIS IN THE METROPOLIS.

IN his twenty-sixth annual report to the Board of Works for the Holborn District, on the sanitary condition of that locality for the year 1882-83, Dr. Septimus Gibbon, the Medical Officer of Health, expresses his regret at having to report an increase in the number of fatal cases of syphilis and congenital syphilis, which amounted to 73 and 27 cases respectively, against 52 and 24 in the previous year. These increased figures, which, Dr. Gibbon thinks, very much understate the actual amount of the disease, are, in his opinion, due rather to the increased courage of the doctors in recording its true nature than to any real increase of this terrible plague. In fact, the deaths in the whole metropolis from syphilis and other venereal affections fell from 551 in 1881 to 517 in 1882, a decrease of 6·1 per cent., which must be a source of congratulation to every thinking person, and for which we were indebted, Dr. Gibbon says, to the Contagious Diseases Acts. In the course of a lengthy disquisition on this subject he expresses his regret that these Acts, which have done more for the public health than all other sanitary legislation put together, should have been unconstitutionally repealed and abandoned by the Government, because, on a single chance vote of considerably less than half the members of the House of Commons, the foolishly sentimental resolution was carried to do away with the compulsory examination of women. "Inasmuch as the women referred to are more liable to contract the disease than men, and have elected to follow a dangerous trade, I do not see why they should not be compelled to submit to a personal examination, which is made in order to preserve their own health quite as much as that of the general community. As a matter of fact, they themselves have not objected, but in two, if not three, of the subjected towns have petitioned in

(a) *Medical Times and Gazette*, vol. ii. 1882, page 106.



your of the Acts." In conclusion, Dr. Gibbon states that it is only on account of the immense practical injury to the health of the people, which he feels must follow such a disastrous piece of legislation, that he has been induced to answer some of the arguments brought forward in favour of repealing the Acts.

#### THE PROJECTED MEDICAL LIBRARY, PARIS.

ACCORDING to the *Union Médicale* of October 16, the construction of a medical library on an unprecedented scale of magnitude is contemplated. "As is already known," the article states, "the plan for the entire reconstruction and enlargement of the *École de Médecine* comprises the creation of a department to be exclusively devoted to the library and rooms for practical studies. In the new library are to be assembled not only the works which exist in the present library, but also collections of all known publications relating to medicine. Moreover, it is contemplated forming there a special register, in which will be inserted the names of all medical practitioners legally pursuing their profession throughout the principal countries of the world. The realisation of so vast a project has given rise to a preliminary investigation, which reveals figures of a truly interesting character. From this it appears (no references are given as to the authorities upon which this statement is founded) that the number of medical practitioners spread over all parts of the globe amounts to 193,000, among whom 11,250 devote themselves solely to advanced medical study (*hautes études médicales*). This is the manner in which these 193,000 medical practitioners are distributed, according to their countries, viz.:—65,000 in the United States, 26,000 in France, 32,000 in Germany and Austria, 35,000 in Great Britain and her colonies, 10,000 in Italy, 5000 in Spain, etc. "If we entertain the pretension of assembling in the library of the *École de Médecine* all that has been written in medicine to the present time, this library should contain more than 122,000 volumes, without counting simple *brochures*, theses, memoirs, etc., the number of which must exceed 250,000. In relation to authors who have treated specially on medical subjects, the United States occupy the foremost place with their 2800 authors, and then follow France with 2600, Germany and Austria each with 2300, and Great Britain with 2000, etc. To accommodate all the documents enumerated above, an edifice eight times greater than the present library and its dependencies will be required."

#### MILK EPIDEMICS IN DUNDEE.

LAST week a dairyman at Dundee was heavily fined for selling milk while harbouring a case of scarlet fever in his house, whereby nineteen cases of very virulent type, and four deaths resulted. This little epidemic has now been thrown into the shade by an outbreak of typhoid fever, which has been traced to a similar cause, and has assumed alarming proportions. From October 1 up to Sunday last no fewer than eighty-five cases had been reported to the sanitary authorities, and the inquiries which were at once instituted resulted in the discovery that of these as many as thirty-six were among the customers of a single dairyman named J. Henderson, the remaining twenty-seven of the sixty-three which had occurred since October 11 being supplied from eleven different dairies. On Saturday last three of Henderson's children were certified to be suffering from typhoid fever, and Henderson then agreed to have the children removed to the Infirmary, and to stop the sale of milk from his premises until they were thoroughly disinfected. At half-past six o'clock, however, on Saturday night, he refused to allow his children to be removed; and in consequence the Sheriff has issued an order prohibiting him from selling milk within the burgh

of Dundee for a period of seven weeks. The epidemic continues to spread, and up to noon on Wednesday no fewer than seventeen fresh cases were reported, making a total of 102 for the month.

#### THE FIGHTING IN TONQUIN.

"WE have received," says the *Gazette Hebdomadaire*, "a letter giving some details of what occurred after the combats of August 16 and 17, when the army was fighting while retreating from an inundation. In these kinds of action, which resemble *coups de main* rather than regular battles, it seems that the means of transport did not exist in any more profusion than did bedding and medicines. The wounded, forty-eight in number, who were picked up by their comrades in the marshes, had leather straps attached to their hands, and were dragged in this way along the ground in order to escape falling into the hands of the Black Flags. All the balls extracted from their wounds are conical. When charpie falls short, the leaves of the banana or of the tupa, which are cottony, are employed, camphor powder being added—but this only in small quantity, as it has to be economised. Complaint is made of the absence of carbolic acid, which is so necessary for the dressing of the wounds. The health of the soldiers is good, and in this respect a remarkable circumstance has occurred. Two thousand men were fighting for two days in the water, and at the date of the letter (a week afterwards) there had not been a single case of sickness."

DR. BUCKNILL will deliver a lecture at the London Institution on "The Relation of Madness to Crime," on some day in February next.

MR. W. H. CALDWELL, Fellow of Gonville and Caius College, Cambridge, has been elected to the Balfour Studentship; and Mr. W. B. A. Ransom, of Trinity College, has been chosen to occupy for two months the Cambridge table at the Naples Zoological Station.

ONLY four of the provincial schools have as yet sent in returns of their new entries. Of these, Manchester comes first, with 60 entries for the full curriculum, and 18 for occasional courses; Leeds stands next, with 31 full entries, and 3 partial; while Bristol and Newcastle have, respectively, 27 and 25 new students.

THE preparation of a new catalogue of the library of the Royal College of Surgeons is under consideration. The first catalogue was printed in 1831, and since then there have been five supplementary catalogues, the last appearing in 1860. The library now contains 39,197 volumes, as against 11,000 when the catalogue was first printed.

THE Registrar of the General Medical Council requests us to call attention to the notices in our advertisement pages with regard to changes of address. It is important to everyone that the Medical Register should be as correct and complete as possible—a result which can only be obtained by the cordial co-operation of every member of the profession with the Registrar.

THE total amount subscribed and promised to the Hutchinson Testimonial Fund is now nearly £400, and the list will be closed on Wednesday next. The presentation dinner will take place at the Holborn Restaurant on Thursday, November 29, at 7 p.m.—chairman, Sir Andrew Clark, Bart.; vice-chairman, Walter Rivington, Esq., F.R.C.S. A general meeting of subscribers will be held early in November, to decide the form the testimonial shall take; and each subscriber will receive due notice thereof.



MESMERISMUS CHRONICUS.

IN our brief criticism of Messrs. Gurney and Myers' long article on Mesmerism in the *Nineteenth Century* of this month, we had no intention of conveying the impression which Mr. Gurney deprecates in his letter (which will be found in our columns to-day), that he and his friend base their belief in mesmerism on the performances which are given under that name on public platforms. We were alive to the fact, and had hoped to make it plain, that their present fabric of opinion on this subject is founded on their own tedious experiments; but, at the same time, we thought it evident that the platform phenomena had had a good deal to do with the erection of the structure. From hypnotism and expectancy, well mixed with mummery and guile, Messrs. Gurney and Myers have advanced to "specific influence" and "physical effluence,"—from the heat and hubbub of the lecture-hall they have retired to the cool shades of psychical research. But in the phenomena of the platform, which they so picturesquely describe, they must still feel some interest, and it is in those phenomena alone that we find anything of scientific value in connexion with their paper; for while in them there are some traces of the powerful influence of suggestion on a mind in an allotropic state, there is in the precise experiments, as far as we can judge, nothing that is genuine or above the level of juggling. That Messrs. Gurney and Myers had overlooked the trickery and deception which mingle so largely with mesmeric exhibitions, we neither hinted nor thought possible; and that they were sincerely desirous of eliminating these elements from their experiments, we never doubted. Our regret has been, and is, that they have as yet displayed so little capacity for the task they have undertaken, so little skill in separating the tares of falsehood from the wheat of truth; and that in "strictly defining" phenomena they have stamped with their authority a number of results which we regard as spurious. Superstitions are doubly dangerous when they come disguised as science; and follies, when patronised by men of intellect, are apt to become manias.

Our remarks on the morbid and demoralising tendencies of hypnotic experiments on those who participate in them can scarcely be twisted (as Mr. Gurney seems to think possible) into a reflection on the soundness of judgment of the authors of the paper in the *Nineteenth Century*, whose conspicuous ability and singleness of purpose it would have been an impertinence on our part even to acknowledge. We did certainly lament that men of such great mental power should be engaged in equivocal and unremunerative work for which they had evidently no special gift, just as we should grieve to see Huxley and Tindall lay aside their proper pursuits, and devote themselves to the cure of dipsomanias; but our warnings were not addressed to them. We admonished not individuals, but a class; not the strong-minded men who take up mesmerism as a erotchet, but the weak- and unstable-minded people who throw themselves into it as a kind of psychical intoxication. And what we said on this point was founded on observation and a knowledge of cases. Of course, any number of negative cases, like those referred to by Mr. Gurney, may be quoted, in which mesmeric studies and practices carried far have caused no apparent mischief, but these count for little against positive cases, in which they have been followed by, or have merged into, mental or nervous disease. Such positive cases certainly do occur, and each one of them may be taken to represent a whole host of cases in which minor evils that do not come under medical cognisance have been wrought by mesmerism. Of the demoralisation for which it is responsible we have no gauge. And here we should perhaps distinguish between hypnotism and mesmerism, meaning by the latter, hypnotism *plus* humbug. The hypnotic state implies in the human subject a profound disturbance of brain-function, presenting many of the features of dangerous disease, and, as Messrs. Gurney and Myers note, it often leaves a headache behind it, and is produced with increasing facility on each occasion of its production. Can it be believed that such a state can be frequently induced without risk to brain-health? and does not the fact, which can be proved, that it has in some instances hopelessly

destroyed this, suggest the inference that it compromises it more or less ostensibly on a much larger scale? It need scarcely be argued that mesmerism, if it involves deception, is depraving in its influence. It must demoralise men and women to believe a lie; and nothing need be said as to the effects of systematic deception on those who practise it, and who draw into their own vile duplicity young and impressionable beings with a thirst for notoriety and a love of mystery. The statement that the believers in mesmerism are for the most part of a neurotic diathesis, is also founded on observation and medical experience. That the belief is generally associated with a leaning to other forms of mysticism, the constitution of the Psychical Research Society sufficiently attests. Mr. Gurney reminds us that Heidenhain and Hansen have found tall, vigorous athletic subjects most suitable for their experiments on hypnotism and mesmerism; and to that we reply that we do not accept the experiments of these observers, eminent though they are, as wholly trustworthy, and shall have something to say about them in these columns shortly. Of course, a noble physique is not incompatible with a low moral tone, and impostors may be of any height and temperament; but, in this country, persons manifesting genuine hypnotism have almost invariably borne the marks of degenerative tendencies of one kind or another.

With reference to the special set of experiments upon which we made some comments, Mr. Gurney complains that we have scarcely credited him with common sense. We are quite willing to grant that he has a superabundant stock of that somewhat rare quality, but what we maintain is, that this is just a case in which common sense is of no avail. Trained scientific insight, the detective instinct, and a practical acquaintance with the artifices of legerdemain, are necessary in testing results such as he professes to have obtained. The success of a conjuror depends on his satisfying common sense that he has taken the most elaborate precautions to make impossible the very event which he nevertheless brings about by his sleight of hand; and uncommon sense and acuteness often fail to perceive the one point in which the precautions failed. And so the success and credibility of mesmeric experiments, like those described by Messrs. Gurney and Myers, depend on the scrupulous care taken to exclude deception, which may, however, still creep in, even when complete protection against it seems to have been secured. And therefore it was that, without impugning the good faith of the general statement that signals between the operator and subject were impossible in these experiments, we took occasion to point out that we had no detailed account of the measures adopted, which would warrant that general statement, and that signals might have been exchanged between the operator and subject, which the bystanders had omitted to notice or provide for. As Sir William Thompson said, in his recent address at Birmingham, "the wretched, grovelling superstition of animal magnetism, spiritualism, mesmerism, or clairvoyance, is the result of bad observation chiefly, somewhat mixed up with the effects of wilful imposture on an innocent and trusting mind." Now, our fear is that the innocent and trusting minds of the members of the Psychical Research Society are not fully awake to the dangers of wilful imposture and bad observation. The power of really good observation in such matters is an exceptional quality not included under common sense, and wilful imposture is the most subtle of beasts, and can only be crushed effectually by relentless and uncompromising scepticism. Any real test of mesmerism, with a view to the exclusion of fraud, must be conducted with as much scientific forethought and preparation, and with as unerring precision as is the treatment of wounds under Listerism with a view to the exclusion of germs. When a surgeon in these days finds that a wound has become putrescent, he does not resign himself to a belief in spontaneous generation, but concludes that his antiseptic dressings have been faultily employed. And so, when mesmeric experiments like those of Messrs. Gurney and Myers are successful, the reasonable inference is not that there is "some special virtue or force" passing from one organism to another, but that vigilance has been outwitted, and some channel for the passage of communications left open. The experiment must be repeated and varied again and again, with ever-increasing watchfulness and nicety, until the point is reached—as it surely will be reached in all such experiments—where ingenuity is baffled and no result is obtained. But life is too short for the detailed decapita-



tion of hydra-headed chicanery, and all that is necessary is to expose its true character by one clean sweep. If a mesmerist or his subject is caught tripping in a single instance, there is no need to insist on his complete overthrow. *Ex ungue vulpem!* The trickster stands declared!

The much more detailed account now given by Mr. Gurney of the manner in which the particular set of experiments that we criticised was carried out, does not in the slightest degree alter our opinion of the way in which they were accomplished. Regarding each step taken we should have to ask at least half a dozen more questions before we felt satisfied that the necessary precautions had been observed. We have seen a youth "securely blindfolded" looking down his high-bridged nose, and interpreting the shadows thrown on a table by a waving hand above him; and we have heard a message conveyed when "strict silence" was maintained in a room containing half a dozen people, by changes in the respiratory rhythm and the almost inaudible creaking of a boot. And, if all our questions regarding these experiments were satisfactorily answered by Mr. Gurney, we should still maintain that any average conjuror could do everything that Wells did, under the same conditions. We should much sooner believe in some defect in our own penetration than in any community of sensation between two men in different rooms. In what we said of these experiments we merely touched them with test-paper, but did not analyse them, and we may say now that they contain internal evidence fatal to any theory of community of sensation.

It would be interesting and important to know whether we have before us the whole of the experiments in mesmerism and thought-reading which have been performed by Messrs. Smith and Wells. Have they ever failed in their experiments, and if so, under what circumstances? Have their performances been witnessed by any scientific men, biologists or surgeons, whose judgment would carry weight with the medical profession; and if so, what conclusion did they arrive at?

It was not suggested by us, as Mr. Gurney says it was, that there was any "barbarity" in his experiments. All that we did was to express our surprise that he, being an opponent of vivisection, should claim for himself the right to perform on human beings experiments analogous to those which medical men are prohibited from performing on the lower animals. He cannot have forgotten that a certificate and licence are necessary for the performance of an experiment under anæsthetics, which induce a more indisputable kind of insensibility than that which existed in the mesmerised or Smithified youth whom he punctured and scorched. Then it is to be remembered that Mr. Gurney could not, like a physiologist dealing with a rabbit, put the subject of his experiment to death before the return of consciousness or sensibility, and that Mr. Wells, even supposing he did not feel the carving-fork and the burning match when they were applied, must have suffered considerably afterwards from the wounds and eschars which they left on his fingers. We did not sympathise with Mr. Wells, but thought he richly deserved all he got; but we desired to call attention to the inconsistency between Mr. Gurney's preaching and Mr. Gurney's practice.

Mr. Gurney says it would have been more to the purpose if, instead of finding fault with the inhumanity of his experiments, we had accounted for the restricted sensibility which they revealed. Now, without actually seeing experiments of this class, we cannot undertake to criticise them thoroughly, but the impression left on our mind by the description given, was, that no genuine insensibility had been induced in Wells, but that he was good at tholing, to use a North-country word, and that the pain actually caused by the carving-fork and match was not, perhaps, as intense as the bystanders imagined. It may be admitted at once that the hypnotic state may be pushed to a stage at which sensibility to pain is abolished, just as it is in catalepsy and other diseases. Esdaile's Indian experiments put that beyond doubt; but the anæsthesia under such circumstances is general, and not local, and we hear with complete incredulity that a being in an otherwise perfectly normal state can have two fingers made temporarily analgesic by a few mesmeric passes, while the whole of the rest of the surface remains sensitive. We prefer to believe that he suppressed all outward manifestations of feeling. Schoolboys for amusement or bravado will run pins deeply into their limbs,

and never start nor cease to smile; and innumerable jolly tars have taken the cat without wincing. A strong or highly-strung will may inhibit the natural reflexes, and preoccupation of mind, or a dominant and absorbing idea or emotion, may for a time blunt feeling, and interrupt its ordinary external display. It is well known that lunatics will mutilate and torture themselves without any special exhibitions of suffering, and Browning has made use of this fact in his "Red Cotton Nightcap Country," where he tells us of Miranda:—

"He had replaced the letters quietly,  
Shut coffer, and so, grasping either side  
By its convenient handle, plunged the whole—  
Letters and coffer, and both hands to boot,  
Into the burning grate, and held them there.  
'Burn, burn, and purify my past!' said he,  
Calmly, as if he felt no pain at all."

It might be said that there are no means of distinguishing between genuine insensibility and the apparent insensibility which is the result of a strong voluntary effort. We think there are. By the use of instruments of precision and some rather intricate devices, and in a series of experiments which Mr. Wells would perhaps be scarcely disposed to submit to, genuine anæsthesia may be differentiated from dogged endurance; but in the case of Wells no satisfactory measures have as yet been taken to distinguish the two, and everything we are told about the experiments points away from genuine anæsthesia.

## TIN IN "TINNED" FOODS.

TINNED meats, soups, vegetables, and more especially fruits, are all, without exception, contaminated by metals; such is the irresistible conclusion of recent scientific investigation. In 1878, Mr. Albert E. Menke communicated to the *Chemical News* results of analyses of a tin of lobster, one of apples, and another of pineapple; the latter contained tin dissolved in the juice equal to 1·3 grain per pound, the lobster and apples a much smaller quantity. Mr. Hehner, in 1880, communicated to the *Analyst* the results of a prolonged and thorough investigation of the subject. He found tin in tinned French asparagus, American asparagus, peas, tomatoes, peaches, pineapples, white cherries, red cherries, marmalade, corned beef (five different brands), ox-cheek, ox-tongue (three kinds), collared head, tripe, oysters, sardines preserved in oil, salmon, lobsters, shrimps, curried fowl (two kinds), boiled rabbit, boiled mutton, roast chicken, roast turkey, soup, and in three brands of condensed milk. The amount of tin found does not appear large—*e.g.*, in the milk one-tenth of a grain per pound, in one of the soups half a grain per pound, and in a pound tin of preserved oysters seven-tenths of a grain per pound. On a later research, Mr. Wynter Blyth has found far larger quantities. In a recent report to the Vestry of St. Marylebone, detailing the examination of twenty-three samples of tinned apricots, tomatoes, pineapples, and cranberries, the amounts found calculated as stannous hydrate range from 1·9 grain to 14·3 grains per pound, the mean amount being 5·2 grains. The juice and fruit in some instances had a metallic taste. Several of the tins showed signs of corrosion. The older school of toxicologists, as represented by Orfila, considered pure tin vessels innocuous; if accidents occurred, they were ascribed with confidence to the admixture of lead in the alloy, or to arsenic. The arsenic theory ceased to be held when it was found that arsenic was present in so small a quantity that an adult would have to spend more than forty years drinking and eating from tin vessels before he imbibed a poisonous dose; and even the explanation of lead so often accompanying the tin has not of late been considered sufficient, but the question is of some moment whether tin in itself, present in a soluble form contaminating food, may not act injuriously. All know the toxic action of the chloride of tin on the one hand, and the inactivity of stannic oxide on the other: it is evident that in tinned foods we have to do with neither, but with some form of stannous hydrate. The little that is known of the action of stannous hydrate may be summed up in a few lines. Doses of about 174 grammes per kilogramme of body weight cause in guinea-pigs death with signs of intestinal irritation; but with doses smaller than 17 to 22 grammes the effects are uncertain, and the animals generally recover. Hence, supposing man to be affected in



the same proportion, he would have to take from three to four drachms, or consume at a meal ten pounds of the most contaminated of Mr. Wynter Blyth's tinned fruits. But it is not a question of immediate lethality, it is rather one for inquiry as to the action of small repeated doses continued for a long time. In the summer season, some families who go yachting, fishing, or travelling in remote parts often carry a considerable supply of "tinned" provisions, and must take, in the aggregate, physiologically active doses of stannous hydrate, possibly producing some slight dyspepsia or intestinal irritation. From time to time, indeed, serious symptoms are witnessed after eating tinned meats; but the exact cause of such illness has never been in any thorough way investigated. It must also be remembered that certain sugars now in the market contain tin in the proportion of about half a grain to the pound—no very great quantity in itself, but the small fractions of the metal found in this and that article of food in daily use may mount up until an active dose is taken. Physicians and medical men generally will do well to inquire closely into the diet of their patients suffering from obscure gastric affections; and it is hoped that, in the meantime, experiments may be made by competent men on the action of stannous hydrates.

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### DR. BARRY ON THE SANITARY CONDITION OF BARROW-ON-SOAR.

A PETITION having been received by the Local Government Board from some of the inhabitants of Barrow-on-Soar, Leicestershire, praying that an inquiry might be made into the sanitary condition of the locality, on account of the continued prevalence of scarlet fever, Dr. F. W. Barry was deputed in February last to make an investigation. Barrow-on-Soar is a large village with a population exceeding 2000 persons, chiefly engaged in quarrying limestone, which is obtained from the lower lias formation, and is used for making hydraulic cement; and in agriculture. Its water-supply is obtained from wells, which, owing to the filthy conditions of the surrounding soil, must be subject to constant risk of pollution. It has no system of sewerage, properly so-called; concerning the drains that are in existence the Sanitary Authority have but little information, and that which was communicated to Dr. Barry by various persons, official and other, he found very conflicting. From his own examination he ascertained that the drains consisted in some cases of brick culverts, in others of glazed sanitary pipes, and in others again of agricultural pipes with dry joints; while a large number consisted merely of dry rubble walls with slate covers. The more part of them were said to be stopped up, thus giving increased facilities for percolation into the soil. The greater part of the sewage passes into the river Soar by means of two outlets, one on each side of the bridge, and the condition of the river banks in the neighbourhood was stated to be extremely offensive in the summer months. A number of the houses visited were found to have no artificial means of drainage, the slops and liquid filth being thrown into the privy cesspit or on the surface of the ground. The Sanitary Authority of the district does not undertake the removal of refuse, consequently the inhabitants have to arrange with farmers and others to remove it at their convenience—a method of procedure, Dr. Barry says, which invariably leads to the storing of large accumulations of filth. The dwelling accommodation was ascertained to be fairly good, though some cottages were noticed quite unfit for human habitation; moreover, the means for the ventilation of bedrooms was frequently defective, and in some instances the yards common to groups of houses were noticed to be very ill-paved, and to have slops and liquid filth standing in holes and around the drain inlets, giving rise to considerable nuisance. The Medical Officer of Health for Barrow informed Dr. Barry that scarlet fever was introduced into the village from Nottingham in July, 1882; that eighty-one cases were treated by himself and the other local practitioner, and that twenty of these terminated fatally; numerous other cases were, however, stated to have occurred,

which were not attended by any doctor. In the absence of any means for isolation the only steps taken to check the progress of the fever were, the distribution of disinfectants, and of carbolic oil for the purposes of inunction during the process of desquamation, by the inspector of nuisances. As regards the dwellings, little beyond cleansing and occasionally lime-washing was practised, fumigation having been rarely resorted to. Efficient disinfection of clothing and bedding by dry heat was not possible in the absence of the necessary apparatus. Dr. Barry sums up his report by remarking that the water-supply is unfit for human consumption; that the drainage is most imperfect; and that the means adopted for the disposal of excrement is of the worst description; and he is of opinion that the persistence of scarlet fever must, in a measure, be attributed to the complete absence of any means of isolation or of efficient disinfection, and to crowding in ill-ventilated rooms.

### MR. POWER ON EPIDEMIC PREVALENCE OF ENTERIC FEVER AT HITCHIN.

In February of the present year the Hitchin Urban Sanitary Authority applied to the Local Government Board for assistance in determining the cause of prevalence of enteric fever in its district, and Mr. W. H. Power was deputed to conduct an inquiry. His report, which shows how carefully the investigation was conducted, establishes the fact that a first outburst of the fever, beginning early in December last, culminating about the middle, and waning almost to extinction by the end of the month, was closely followed in the succeeding January by a second and larger outburst, that waxed, culminated, and waned in very similar fashion to the first. Want of space compels us to abridge considerably an account of the means employed to arrive at a solution of the difficulty, but it must be mentioned that at first some suspicion, as usual, attached to the milk-supply, for it was observed that several of the families earliest invaded by the fever had obtained their milk from a particular dairy. On inquiry, however, it was found that this dairy had by far the largest milk business in the town, so that a preponderance of attacks among its customers had not necessarily any significance; and further, it was found that of the families invaded in the first epidemic outburst of the fever, above one-half had obtained their milk from other sources. The public water-supply, however, did not prove on inquiry to be so harmless; although the fever had had a wide range, and had fallen alike on high and low lying quarters of the town, there was a notable limitation in its incidence. That portion of the district within the area of the public water-service which still continued to use well-water had, with few exceptions, escaped fever, and the exceptions were persons who, it was proved, had drunk the public water elsewhere than at home. Having established this fact, Mr. Power next set to work to ascertain the cause of the impurity of the water. In investigating the source of the supply of this (which he found to be half a mile south of the centre of the town, and derived from a spring rising in the chalk), and following the method by which the water was brought to the service reservoir from which it was distributed, he records many risks existing of contamination. But the cause of the spread of the fever on the two last occasions Mr. Power localised at the pumping station. Here it was ascertained that an eight-inch overflow pipe, contrived to convey surplus water from the receiving-tank and pumping-well into the river Hiz, permitted, on occasion, reflux of the river-water into the tank. Discovery of this defect in January last was not only startling, but was, in a way, satisfactory to the Sanitary Authority, to whom the waterworks belong, since it went far to explain a difficulty that had for some time troubled the manager of the works, viz., that, without obvious cause, suddenly and at uncertain intervals, the water in the pumping-well had been apt to become turbid. The river Hiz, in its course through the town, is little more than a ditch, into which refuse of all descriptions is thrown. On one inspection Mr. Power himself saw diarrhoeal excrements, which had been thrown out from a neighbouring dwelling, lying on the bank just above the point of entrance to it of the overflow pipe from the waterworks. Subsequent inquiry elicited the fact that on December 30 last, a day on which a heavy rainfall of 0.67 inches was registered in Hitchin, very general complaint had been made to the waterworks manager that the water delivered by the public



mains was thick and turbid; and an examination forthwith undertaken by the manager revealed the fact that the water in the pumping-well and the service reservoir was in a like condition. This pollution of the public water-service on December 30, Mr. Power thinks, was decidedly the cause of the outbreak of fever in mid-January, and, that being admitted, it is but fair to presume that the first outbreak may have had a similar origin. In conclusion, Mr. Power wishes it to be understood that he does not refer all the fever which has recently occurred in Hitchin to water causation, but he thinks the public water-service was the main factor in its spread on the two occasions quoted, which induced the Sanitary Authority to seek for an inquiry.

## ABSTRACTS AND EXTRACTS.

### THE PREVENTION OF OPHTHALMIA NEONATORUM.

IN a recent number of the *Archiv für Gynäkologie*, Prof. Crédé, of Leipzig, calls attention to the prophylactic treatment of the ophthalmia of the newly-born which he has in former communications advocated, and which has now been tested by considerable experience. His view as to the etiology of the disease is, that it is always the result of inoculation of gonorrhœal virus from the mother, the contagious matter coming into contact with the infantile conjunctiva while the child is traversing the maternal passages. The form of vaginitis known as "granular," he regards as gonorrhœal in origin. In support of this he points to experiments by Königstein, Hausmann, and others, in which ordinary vaginal leucorrhœal secretion, transferred to the conjunctiva of animals, failed to produce inflammation. He also adduces statistics to show that ophthalmia neonatorum occurs more frequently in children born after labours with prolonged second stage, especially after these in which rupture of the membranes took place prematurely, from the greater length of time in which the foetal conjunctiva was, in such, exposed to the risk of infection; and that the disease is more frequent in boys than in girls, because labour with boys is longer. These figures do not seem to us quite conclusive, because Prof. Crédé does not adduce for comparison any statement of the frequency of prolonged second stage, or premature rupture of membranes in mothers whose children did not suffer from ophthalmia; and the excess of boys affected over girls is very slight, and might be accidental. The method of prophylaxis is the following:—After the umbilical cord has been secured, the child is washed, and then the eyes are cleansed with a clean bit of rag dipped in water. Each eye is then held open, and with a glass rod a drop of a 2 per cent. solution of nitrate of silver is let fall upon each cornea. Nothing further is done. This sometimes produces a little hyperæmia of the conjunctiva, with slight increase of secretion; but these results pass off by the third day. The results obtained by Prof. Crédé are the following:—In the Leipzig Hospital, from 1870 to 1883, 4057 living children were born, of which 318, or 7·8 per cent., suffered from ophthalmia. In 1871 and 1877 there were between 6 and 7 per cent. affected; but in the remaining years between 1870 and 1880 from 12 to 15 per cent. In 1880 Prof. Crédé introduced his prophylactic treatment, and from that time till the present, out of 1160 births, only four cases of ophthalmia have occurred; but of these in two the treatment had not been properly carried out, while in one the disease did not appear till the ninth day after delivery, and therefore could not be properly called "ophthalmia neonatorum," for the disease, to deserve that name, should come on in the first five days. In Stuttgart, according to Bayer, the percentage of ophthalmia in the years 1877 to 1880 was 8·7, 14·3, 12·9, and 9·6 per cent. respectively. In 1881 the treatment was adopted, and since then there have been 361 births without a single case of ophthalmia. Königstein reports a percentage of 5·44, sinking, in consequence of the treatment, to below 1 per cent. It only remains to be added, that Prof. Crédé thinks the treatment of so simple a character that nurses may be trusted to do it; also that Horner reports that throughout Germany about a third of the patients in asylums for the blind came there through infantile ophthalmia: so that the importance of the subject can scarcely be overrated.

### THE STATE OF THE NON-PARALYSED LIMBS IN HEMIPLEGIA.

THE fact that in ordinary hemiplegia due to a destructive lesion in the brain, whether central or cortical, the paralysis does not affect the whole of one half of the body, is well known. The regions that invariably escape are the vertebral column, the neck, the larynx, the muscles of the abdomen and diaphragm. The muscles which remain paralysed after a destructive lesion of the motor area are those of the limbs and part of the face on the opposite side of the body. What is not so generally known or admitted, is that, in consequence of unilateral lesions of the brain, certain permanent disturbances of motor power or nutrition may be observed on both sides of the body. In the *Progrès Médical* (Nos. 39, 40, 41), M. Paul Dignat has studied these bilateral phenomena, and made some general remarks upon the physiology thereof which merit consideration. In the first place, in hemiplegia the other arm is always obviously weakened, but there is never any other important functional disturbance; it is never the seat of epileptiform tremor, nor of secondary contracture. In the leg, on the other hand, there may be found not only diminution of muscular strength and functional powerlessness, but also the rapid formation of bed-sores, exaggeration of the tendon reflexes, epileptiform tremor, and, in some rare cases, secondary contracture. M. Dignat goes on to say, "We have just enumerated the leading symptoms which may appear in a case of hemiplegia on the side opposite to the paralysis. We must now seek to explain the mechanism by which a unilateral lesion of the brain can affect both sides of the body, and give rise to motor or nutritive phenomena, both in the limbs on the side opposite to the cerebral lesion, and also in those on the same side. All the symptoms which we have had under consideration have not the same pathological meaning. Thus the loss of strength in the limbs on the same side as the lesion is probably the result of a mere functional disturbance of the central nervous system, the various portions of which are so intimately connected with each other, that, of necessity, lesion of one part to a certain extent hampers the action of the others. The bilateral exaggeration is perhaps also the result of a purely functional modification of the spinal irritability, but the secondary contracture must certainly be due to organic lesion." It appears from the researches of M. Pitres that secondary sclerosis of the spinal cord is not always limited to the areas indicated by Türck, *i.e.*, to the internal part of the anterior column on the same side as, and to the posterior part of the lateral column on the opposite side to, the lesion. That, no doubt, is most commonly the case, but sometimes the descending degeneration resulting from a single lesion occupies both the lateral columns of the cord symmetrically, with or without participation of the column of Türck. The degeneration may or may not be symmetrical on the two sides, but it always remains systematic. Flechsig has shown that occasionally the decussation of the anterior pyramids does not take place. M. Dignat suggests that in some instances the anterior pyramids send fibres to each lateral column, and would thus explain the existence of bilateral rigidity after a unilateral cerebral lesion.

### THE MOIST SPONGE DRESSING IN AMPUTATIONS OF THE JOINTS.

DR. McCLELLAN, Surgeon to the Philadelphia Hospital, relates, in the *Phil. Med. News* of August 4, a case of amputation at the knee-joint, with the object of advocating more frequent amputations at the joints, in order to prevent the risk of a second amputation being rendered necessary by the propagation of disease along the medulla of the bone. Another principal object which he has in view is the removal of an important objection to the operation—the impression that it implies extensive suppuration and exhaustive drainage. He believes that considerable suppuration in this and other wounds is mainly due to the surgical dressing ordinarily employed; and he wishes in this case to exhibit the superiority of moist sponge, which is of simple application, and obviates the retention of any discharges in the wound. The patient, forty-four years of age, underwent amputation of the knee-joint at the end of April, in consequence of the great pain in the stump which she suffered after an amputation of the leg, performed at the beginning of January, on account of cancerous disease, which afterwards spread along the tibia. The edges of the



wound were carefully approximated with silver wire, and a large, soft sponge (previously soaked in carbolised water, one part to forty) was applied directly to the part, and held in position by broad bands of adhesive plaster, extending diametrically across the sponge and along the thigh, so as to exert equal compression upon the deep as well as the superficial structures. The ligatures were brought out at the most convenient points, and their ends embraced in the grasp of the sponge. There was no external or other dressing applied, except that a light roller was run up the thigh to control muscular spasm, and the thigh itself slightly elevated on a pillow of oakum. This dressing was not disturbed for twenty-four hours, when it was removed, and afterwards re-applied daily. One of two sponges was used alternately, and kept constantly moistened with carbolised water (one to forty), while the other was soaking in the solution. At each removal, all the discharges were found within the meshes of the sponge, and the appearance of the wound was satisfactory, except on the fourth day, when it became erysipelatous (from contamination of an outbreak in the ward). This was combated by wetting the sponge with a solution of sulphate of iron (gr. x. ad ʒj.), and the progress of the case was thereafter uninterrupted towards recovery, which was completed with firm cicatrization and entire cessation of discharge on May 20, three weeks from the date of the operation. The temperature reached 100° the first night, and 101° on the fourth; but, with the subsidence of the erysipelas, it fell to the normal, and remained so throughout the rest of the treatment. The stump is firm, and well adapted for the use of an artificial limb. The patella remains between the condyles of the femur, and there is excellent forward motion, due to the preservation of the function of the extensor quadriceps muscle. Dr. McClellan hopes that the narration of this case will induce others to give the moist sponge application, of which he is a warm advocate, a trial.

**THE SEMICIRCULAR CANALS.**—Dr. Wm. James, of Harvard University, has made some experiments to test the modern theory that the semicircular canals, instead of being connected with the sense of hearing, serve to convey the feeling of movement of the head through space, which, when intensified, becomes dizziness. It occurred to him that deaf-mutes, having their auricular organs injured, might afford some corroboration of the theory, if it were true, by showing a smaller susceptibility to dizziness than persons with normal hearing. Of 519 deaf-mutes examined by subjecting them to a rapid whirling, 186 were wholly insusceptible of being made dizzy, 134 were made dizzy in a very slight degree, and 199 were normally, and in a few cases abnormally sensitive. Nearly 200 students and instructors of Harvard College, supposed to have normal hearing, were examined for the purpose of comparison, and but a single one proved exempt from the vertigo.—*Louisville Med. News*, September 1 (from *Weekly Med. Review*).

**OPERATIONS FOR BRONCHOCELE AT TüBINGEN.**—In Prof. P. Bruns' *Mittheilungen a. d. Chirurg. Klinik zu Tübingen*, Dr. Fischer states that the Professors Bruns (father and son) have performed the extirpation of 38 non-malignant bronchoceles, and of 5 malignant. The former occurred in 36 individuals (25 males and 11 females), of whom 12 were not more than twenty years of age. In 11 cases the bronchocele was parenchymatous, in 19 parenchymo-cystic, and in 8 unilocular—iodine injections having been tried in vain in these last. Of the 38 operations, 6 (15·8 per cent.) proved fatal—in 3 from septicæmia, 1 from tetanus, and 1 from pleuritis and pericarditis, while in 1 the operation could not be completed, the patient dying thirty-two days after from some unascertained disease. In 3 cases the number of ligatures rendered necessary amounted to 120! Tracheotomy had to be resorted to only in 2 cases, once before and once during the operation. In 3 cases narrowing of the trachea had taken place from the compression, but in none had its cartilages undergone softening. During the healing process, secondary hæmorrhage occurred in 7 cases. Of the 5 operations for malignant bronchocele, 2 terminated fatally. The disease was cancerous in 4 cases, and sarcomatous in 1. In one of the cases of carcinoma the patient lived for three years and a quarter, the longest period that has been survived after the extirpation of a malignant bronchocele.—*Centralblatt für Chirurgie*, August 11.

## REVIEWS AND NOTICES OF BOOKS.

*Injuries of the Spine and Spinal Cord, without Apparent Mechanical Lesion, and Nervous Shock, in their Surgical and Medico-Legal Aspects.* By H. W. PAGE, F.R.C.S., M.C. Cantab., etc.; Surgeon to, and Lecturer on Surgery at, St. Mary's Hospital. London: J. and A. Churchill. 8vo, pp. 374.

THIS book has a twofold aspect. On the one hand it is a careful treatise on what is implied in the title, while on the other it is, by reason of the nature of a great part of its subject-matter, an attempt at a "clearing-up" of the various medical and popular notions which obtain regarding the consequences of railway accidents, especially collisions. It is mainly on the probability of the author's views on this latter question that the reputation and value of this book must rest; for Mr. Page says himself that it is an "indirect object of this work to show that with very rarest exception the spinal cord is absolutely uninjured in cases of railway collision, shock or jar."

The position taken is that most of the cases of pain in the back with subsequent nervous symptoms, so often heard of after railway accidents, and commonly put down to "concussion of the spine," are in reality cases of injury to the structures in the neighbourhood of the vertebral column, ligamentous and muscular, combined in varying proportion with the symptoms of nervous shock; and that many cases where there may be no pain in the back complained of are due to nervous shock alone. It is obvious, when the predominant teaching as regards the possible and frequent results of "spinal concussion" is borne in mind, that the opinions of this author are greatly divergent therefrom, and that, in consequence, their substantiation or refutation is a matter of considerable importance, both to the profession and the public.

To the widely received notion that a shock suffered in a railway collision, whether there have been any violence to the back or no, may so affect the cord by "concussion" as to lead to its ultimate inflammation and that of its membranes, is opposed the statement that there is no evidence of primary or secondary changes having been produced in the spinal cord where there has not been at the same time clear proof of injury on or close to the vertebral column. Mr. Page, in effect, would erase the words "concussion of the spine" from medical terminology.

He argues at first by the *à priori* method, and urges that the cord by its anatomical surroundings is especially secured from injury by either direct or indirect violence. There is no true analogy, he shows, between what is understood as concussion of the brain and the so-called concussion of the spine—a point which he discusses at some length; and he further calls attention to the confusion implied in the very term "concussion of the spine," used, as it often is, at one time for the set of symptoms supposed to be due to a shake of the cord, and at another as denoting the blow or the active cause of the symptoms, as, for instance, in the phrase, "below the seat of the concussion of the spine." From such confusion as this misunderstanding must obviously result. Yet another inaccuracy is shown to be involved in the formula "concussion of the spine," the word "spine" being not always definitely used, but allowed to stand sometimes for the marrow, and sometimes for its bony case. The notion of spinal concussion is thus represented as not being a *vera causa*, or a good working hypothesis to cover the facts and allegations which it is called on to explain.

The main argument, however, on which the author rests to establish his contention that the cases generally attributed to "concussion of the spine" and its alleged consequences are of quite a different character, is an appeal to facts and experience. And, as surgeon to one of the largest railway companies, Mr. Page is able to present his readers with a very considerable amount of material to study. He first shows that there is no post-mortem evidence of undoubted lesion occurring in nervous centres when the possibility, or even the probability, is excluded of some traumatic injury having been inflicted at the time of the accident; and that the absence of any proof of myelitis or meningitis taking place, in cases where there has been only a supposed direct or indirect shake of the spinal cord, goes far to render such occurrence of the



greatest unlikelihood, when the especial security of the cord from injury is borne in mind. It is very rare, says the author, for direct blows on the back, or falls, in ordinary practice, to cause any symptoms which could be referred to disease of the cord. Why, then, in cases of railway accident should an unknown etiological quantity be called in?

It is next contended that the symptoms so generally referred to "concussion of the spine" can be explained in other ways—that, in fact, known causes can be adduced to account for them, without recourse to gratuitous hypothesis; and the author proceeds to ascribe these symptoms to the general category of "nervous shock."

In the chapters of the book entitled "Spinal Injuries of Railway Collision," and "Shock to the Nervous System," Mr. Page works out and illustrates his contention that the common injuries and affections resulting from railway collisions are, in a large majority of cases, due to sprain of the muscular and ligamentous structures of the back, and to nervous disturbance resulting directly or indirectly from the accident. These chapters are full of matter, and display an intimate knowledge of the phenomena of nerve-disease, and a thorough acquaintance with recent neurological research. They are, moreover, enriched by a constant reference to cases in point, being, indeed, founded on a large number of observations made by the author himself, and embodied to a great extent in an elaborate and interesting table of 234 unselected cases of railway injuries, which forms, as an appendix, a most important feature of the book. It is shown, in an apparently incontestable manner, that a large number of these cases, evincing the symptoms usually ascribed to "concussion of the spine," and held to involve the probability of supervening structural disease, tend to ultimate and perfect recovery, and that they are most frequently influenced for good, where there has been litigation, by a settlement of the claim made, whether the result be for or against the patient.

A great distinction is drawn between the mass of cases, undoubtedly genuine, which are thought to be due to the causes above mentioned, and those attributable to malingering. An interesting chapter is devoted to this latter subject, containing many hints of practical value; and the book ends with some useful and weighty observations on the manner of examining cases of railway injuries where litigation is involved, and of giving evidence in courts of law.

The remarks on the "electric test" in the examination of patients are undoubtedly true and much to the point, but perhaps require some expansion to prevent misunderstanding. The great diagnostic value of the use of electricity, properly applied, in some cases is not to be underrated, though, as the author insists, this agent is calculated, without due care, to cause more confusion than clearness.

The constant reference to facts, and the rigidly logical method which is apparent throughout this book, lend great weight to the inferences drawn by the author, whose field for observation is confessedly large. Doubtless his position as surgeon to a railway company renders him liable to a charge of unconscious bias in the formation of his opinions. Nevertheless, it must be said that it is impossible to discover a trace of any such influence in the whole course of his argument. But, perhaps in the heat of contesting received opinions and of endeavouring to establish other views, the author is occasionally led into a controversial style which does not harmonise well with the cool and lucid line of argument that he usually follows; and there is evinced here and there a seeming touch of acerbity and somewhat uncalled-for rhetoric in dealing with the opinions of hitherto acknowledged authorities on his subject, which we hope Mr. Page will see fit to modify or dispense with in a future edition. In saying this we have found all the fault we can with a book which evinces large experience, careful thought, and all-round medical knowledge on the part of its author; and which, if its main contention prove to be true, seems to go far towards rendering the knowledge of a hitherto obscure and neglected set of clinical phenomena part of the common property of the practitioner of medicine, and helping us to "escape from the region of cloud-land when we hear no more than that a man has been in a collision and had concussion of the spine and become paralysed."

*Lectures on the Localisation of Cerebral and Spinal Diseases.* By J. M. CHARCOT. Translated and Edited by W. B. HADDEN, M.D. London: The New Sydenham Society. 1883. Pp. 336.

THESE Lectures were delivered at the Faculty of Medicine of Paris in 1875, and appeared in the *Progrès Médical* as they were given, and were subsequently issued in a separate form, of which the present is the translation. Their aim may be said to be to demonstrate the importance of morbid anatomy, as compared with experimental physiology, in determining the functions of the several component parts of the central nervous system. The normal structure of the cortex and of the central ganglia occupies several lectures, and affords M. Charcot an opportunity for pointing out the most common seat of cerebral hæmorrhage, one of the lenticulo-striate arteries, which he proposes to name the "artery of cerebral hæmorrhage," owing to its rupture being by far the most common cause of this occurrence. The succeeding lectures deal with hemianæsthesia, amblyopia (including M. Charcot's well-known theory of the mode of production of crossed amblyopia), and the effects of lesion of the different portions of the internal capsule. The second part of the volume relates to the anatomy, development, and lesions of the spinal cord. The important part played by the pyramidal tract in secondary degenerations is given due prominence; and the labours of Flechsig in this and other matters are fully recognised. Several lectures are devoted to the results of secondary degeneration—e.g., late hemiplegic contracture, spasmodic infantile hemiplegia—and the true nature of spasmodic dorsal tabes is discussed at length; M. Charcot frankly admitting that cases he had supposed to be of that nature had subsequently been proved to be cases of disseminated cerebro-spinal sclerosis. Dr. Hadden is to be congratulated upon having produced a translation of these valuable Lectures which, whilst faithful to the text, is not marred by being too literal.

*Surgical Cases and Essays.* By RUSHTON PARKER, B.S., F.R.C.S., Professor of Surgery in University College, Liverpool. In Two Parts. Liverpool: Adam Holden. 1883. Pp. 43 and 56.

THIS little volume consists of two parts. In the first are collected a series of reprints of papers on surgical subjects, including the treatment of fractures, of synovitis of the knee by compression, cases of excision of the tongue, of umbilical hernia, and of lithotomy. This practice of collecting together papers scattered throughout the medical press is very commendable, and might, we think, be advantageously practised more widely than it is. The cases are unusual from one point or another, and worthy of a better fate than to be hidden away in the not always readily accessible pages of the weekly journals.

Part II. deals with abdominal hernia and its treatment. In his preface Mr. Parker points out that he does not repeat indisputable facts; but accentuates certain points of treatment, etc., to which he would draw attention. Thus, special stress is laid on the need for thorough and prompt "functional treatment," over and above the relief of strangulation, in all forms of intestinal obstruction. Omental hernia is discussed in its various bearings, and a somewhat new view as to its pathological condition is advanced. The true cause of "collapse" after perforation of intestine is studied, and its serious consequences attributed to the septicæmia which it gives rise to, rather than to the mere fact of perforation *per se*, as was formerly taught. The little volume is full of interest, and will add to Mr. Parker's reputation as an observant and practical surgeon.

*The Lettsomian Lectures on the Treatment of some of the forms of Valvular Disease of the Heart.* By A. ERNEST SANSON, M.D. London: J. and A. Churchill. 1883. Small 8vo, pp. 93.

THESE Lectures, delivered in the early part of the present year, have already appeared in our pages; they deal solely, or almost so, with diseases of the mitral valve, and may be regarded as a clear and concise statement of the facts known, and the views most commonly held at the present day in regard to those diseases, by one who has made a special study of the subject. We have much pleasure in commending to the notice of our readers this admirable little book.



## GENERAL CORRESPONDENCE.

## URETHRAL FEVER.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your issue of to-day (page 471) I find it reported that Sir Andrew Clark lately submitted for investigation by the Clinical Society of London a morbid condition which he does not find explained “either in contemporary opinion or in the writings of previous authorities.” This state has long been known to surgeons as Urethral Fever, a very fully illustrated account of which will be found at page 367 of Fayrer’s “Clinical and Pathological Observations in India.” The effect of catheterism upon one who is the subject of morbus Brightii or of malarious poisoning is often the same as that of a chill or a stab: it causes rigor, ushering in fever, which may be deadly. Sir Joseph Fayrer remarks:—“Urethral Fever is more prone to occur in a malarious climate, like that of Lower Bengal, than elsewhere. I have no recollection of ever having seen it elsewhere in such marked and severe form as in Calcutta; for not only does it sometimes supervene here after catheterism in tight strictures, where the instrument is passed with difficulty, and the patient’s constitution is irritable from the effects of the disease, but in slighter cases, and sometimes even when there is no stricture at all, and the instrument has been passed for other reasons.” Mr. Stafford wrote, many years ago, in malarious London:—“Ague very frequently occurs from local injury, when the patient has previously had an attack of it. An injury to the urethra is a good example of this—with which we are all acquainted.” I am, &c.,

London, October 20. NORMAN CHEVERS, F.R.C.S. Eng.

## THE CAMDEN TOWN EPIDEMIC.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following review of certain of the facts connected with the recent outbreak of typhoid fever in St. Pancras may serve to support some of the conclusions suggested by your leader of the 20th inst. Allowing ten days as the usual incubation period for enteric fever, we might expect that, had the St. Albans milk still been infective, an increased incidence of the disease would be seen from September 3 onwards, due to the renewal of the supply from that source on August 24. The figures on page 5 of the report show, however, a marked diminution of cases commencing after that date—only seven of which the dates are accurately known; while for the whole of August the average weekly number had been about thirty, and in the last fortnight 110 cases, or a weekly average of fifty-five. Or, to show the same thing more markedly, there were in the last eight days of August seventy-two cases, and in the first eight days of September only eighteen cases. The seven cases which occurred after September 3 may be due to the longer incubation period, which, as is known, may extend to twenty-one days. Hence the inference is that the milk supplied after August 24 was free from infection. The milk-supply from one farm was never renewed after August 18. The large increase in the number of cases (forty-eight) noticed by Dr. Murphy as occurring from August 24 to 27, may be attributed to causes operating before August 18. Dr. Murphy’s report goes far to prove a connexion between the outbreak at St. Pancras and the milk from Mr. Z.’s farm, but, as the report says, the manner in which the milk became infected is not clear. The theory that the water was infected by percolation from the cesspit, though fitting best the present state of our knowledge of the dissemination of typhoid, is not by any means conclusively proved; for—

1. The analysis of the water shows it to be the purest of all the samples from the various farms from which the supplies were drawn, and free from sewage matter.

2. The water was boiled before being used for washing the churns and pails.

3. The cesspit, 2 ft. 6 in. deep, has many feet of clay between it and the chalk. Leakage of fluid from the cesspit is said by Mr. Z. not to occur, and from its structure seems impossible.

4. The experiment made by Dr. Murphy (report, page 20), if not evidence against leakage, certainly gives no proof

of its existence, nor, in fact, of any connexion between the cesspit and the well.

After carefully inspecting the arrangements, the only point on which comment could be made was the nearness of the well to the privy (24 ft.); and, as analysis of the water showed freedom from sewage matter, I naturally concluded that the water did not suffer from the proximity. Dr. Murphy’s experiment upholds this opinion. Judging from my experience, the arrangements were as good as, or better than, is usual in farms and country places.

That the milk became infected for a time is, I think, as nearly as possible proved; but that it became so through the water, I doubt. I may suggest that the boy who was staying in the house became directly infected by inhalation of the tainted air from the cesspit, and that the clothing of others using the privy carried the infected air thence into the milkshed. Clearing out the cesspit removed this source of infection.

I am, &amp;c.,

J. EDWARD SQUIRE, M.D. Lond.

6, Orchard-street, W., October 24.

## MESMERISM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your recent review of an article on Mesmerism, contributed by Mr. Myers and myself to the current number of the *Nineteenth Century*, contains too much that is true and valuable for the injustice done in it to our own position to be a matter of indifference to us. May I be allowed to indicate some of the points where the writer has unintentionally misrepresented us, either by direct statements, or by the implication that our views differ from his own?

1. It is made to appear that our belief in mesmerism is based on the phenomena “constantly exhibited on public platforms.” Before reaching the point in our paper where we were able to distinguish the phenomena which are from those which are not indicative of a specific influence, we were obliged to use the word “mesmerism” generally; but one of our main contentions was that the phenomena exhibited on platforms as “mesmeric,” even when genuine, contain little, if anything, which the theories of hypnotism and expectancy will not account for.

2. It is said that mesmerism sank into contempt because “sensible men satisfied themselves that, for every ha’p’orth of facts contained in the experiments performed to illustrate it, there was an intolerable deal of trickery and deception.” Even men whom their critic, we fear, regards as not sensible, have satisfied themselves of the same fact. Nor, we hope, will he resent our complete agreement with his view as to the follies and dangers attaching to wonder-mongering epidemics and the “craving for the second-rate supernatural.” It is in that view that we find the strongest ground for strictly defining the phenomena, and subjecting the various theories to the test of precise experiment.

3. Our critic obtains an argument against our sanity of judgment by tracing a belief in the reality of certain phenomena to the same nervous instability as (in his opinion) favours the production of them. He regards the morbid state as almost necessarily infectious to those who observe it; and he draws a gloomy picture of the base and unhealthy tendencies which hypnotic experiments foster in the subjects of them. His description directly contradicts our own experience, and we certainly should not employ any “subject” in whom such tendencies revealed themselves. Our “subject” Wells, I may mention, is an extremely vigorous and contented young tradesman. But, if our critic requires further testimony to what has been so widely observed, we may select a couple of recorded cases out of a thousand, and refer him to the burly Polish soldiers with whom Heidenhain obtained some of his best results; and to Heidenhain’s own brother—undoubtedly the most famous “subject” in Europe,—described by Prof. Stanley Hall as “a tall, athletic, duelling medical student, the picture of health, and said to be a scholar of much promise,” who “had been hypnotised, on an average, two or three times a day for two months, and scoffed at the idea of being the worse for it.” Hansen, the hypnotist through whose performances the topic has lately received so much prominence among the leading German physiologists, states that he “finds active muscular individuals especially adapted for his experiments; and hence prefers English



students, who row, swim, and ride, to German students, with their prolonged sedentary mental work." So, too, the honesty and directness of speech which characterise the genuine hypnotic state have been again and again the theme of scientific comment. At the same time, we fully recognise risks in this class of experiment, which make any wide and unskilled practice of it extremely unadvisable. Of these risks we have elsewhere spoken most unreservedly, and the very paper in question contained an express warning on the subject. If we did not there further enlarge on it, it was because the task which we had proposed to ourselves was a strictly limited one; and in drawing attention to certain phenomena, producible by a few exceptional individuals, which the hypnotic theory so far has failed to cover, we could not foresee that we should appear as the reckless preachers of an indiscriminate mesmeric crusade.

4. A certain set of our results was criticised at some length, but in a manner curiously illustrative of Esdaile's remark, that no student of mesmerism "gets credit for having sufficient common sense to take the most common precautions in making his experiments." We avoided encumbering the pages of a popular magazine with wearisome details, which we thought might be understood as included under the general statement that the experiments took place in private, and that signals between operator and "subject" were made impossible by the interposition of opaque obstacles and the preservation of strict silence. The objections which our critic makes certainly seem to us incompatible with the truth of that general statement; but nothing, of course, is easier than to rebut them *seriatim*. The only persons present, besides Mr. Smith and Wells, were three members of the investigating committee. Wells was securely blindfolded by one of ourselves, and was completely separated from Mr. Smith, first by a large screen, and then by the curtains; which latter are not ordinary curtains drawn at will between the two rooms, but are so fastened as to form an extremely thick permanent barrier, through which not a glimmer of light can pass even on the brightest day. Mr. Smith did not make passes, or cough, or blow his nose, or jingle the money in his pocket; he stood perfectly still, and under the very closest scrutiny throughout. In the question, "Do you feel anything?" which we described as "simple and uniform," the uniformity extended to the tone as well as to the words. The pinches were applied by one of ourselves, in his own order. Such being the conditions, will our critic still maintain that "any average conjuror," in a strange room and without apparatus, could produce the same results?

5. Surprise is expressed at the barbarity of applying a carving-fork and a lighted match to a boy's fingers. The point of the experiment being the total insensibility of the particular fingers, we do not understand where the barbarity lay: we should think it more to the purpose if our critic would account for that restricted insensibility—the factor of expectancy, it will be remembered, having been excluded—on any known form of the "hypnotic" hypothesis. He may, perhaps, refuse to criticise an experiment which he has not himself witnessed; and such reluctance, though not quite what his treatment of us so far might have suggested, would still be reasonable. Will he, then, let us have the pleasure of knowing his name, and accept our invitation to witness the phenomenon next time it is exhibited in London? I am, &c.,

14, Dean's-yard, S.W.

EDMUND GURNEY.

AN INTERNATIONAL ASSOCIATION OF SURGICAL AND ORTHOPÆDICAL INSTRUMENT MAKERS.—In September last about 150 surgical instrument makers, belonging to various countries, held a meeting at Frankfort, and formed themselves into an international association. The principal objects of the Association are—(1) to organise an opposition to all imperfect imitations of instruments of precision; (2) to exchange ideas and models for the construction and perfection of instruments and apparatus; and (3) to encourage progress in the construction of surgical instruments, and to protect the interests of those engaged in the occupation. An executive committee was formed, consisting of Leiter, of Vienna; Windler, of Berlin; Walter-Biondetti, of Basel; Krohne, of London; Simsky, of Königsberg; Wendschich, of Dresden; Laibach, of Liège; and Fischer, of Freiburg.—*Gaz. Med. Lombardia*, October 13.

## REPORTS OF SOCIETIES.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 23.

JOHN MARSHALL, F.R.S., President, in the Chair.

THE PRESIDENT, on taking the chair, drew the attention of the Fellows present to the fact that this, the first meeting of the present session, was both a special and an ordinary meeting of the Society. It was special in order that the Fellows might elect a Medical Secretary in the place of Dr. Southey, who had accepted an honourable post in the Lunacy Department. The Council had taken into consideration possible successors to Dr. Southey, and, after deliberation, had decided to recommend Dr. Douglas Powell. It would, however, be quite competent for the meeting to nominate any other physician being a Fellow of the Society. He declared the ballot open for one hour, and nominated as scrutineers Dr. Duffey and Mr. Langton. He next referred to a very important discovery which had been made since the close of their last session—that of the special micro-organism of cholera—by Dr. Koch, of Berlin. While he could not doubt that our own surgeons who had been sent out to Egypt had worked well and done their duty fearlessly, still the honour of the discovery of the special germ of cholera—a disease which had cost life for years past to more individuals than any other disease known—had been made by the Germans. He expressed the hope that this germ might be demonstrated to the Society during the coming session, if not by Dr. Koch himself, at least by one of the assistants who had accompanied him to Egypt. The President then explained that the Council had felt how interesting and instructive an address on the Progress of Neuro-pathology from their Marshall Hall prizeman would prove to the Society, and lauded the readiness and willingness with which Dr. Ferrier had acted on the hint. He then called on Dr. Ferrier for his address.

#### MARSHALL HALL PRIZE ORATION.

After gratefully acknowledging the honour conferred on him, and paying a tribute to the memory of Marshall Hall, Dr. FERRIER proceeded to compare the relative stability of the work done by Marshall Hall and that by Flourens not long before. He sketched the position and progress of cerebral physiology and pathology up to the new departure inaugurated by the experiments of Fritsch and Hitzig. Without dwelling on the early controversies, he went at once to the proceedings of the International Medical Congress here, where the fundamental question of cerebral physiology, localisation or no localisation, was brought to a crisis. He described the demonstrations, and, comparing the facts with the theses enunciated by Prof. Goltz and other adherents of the Flourens system, held that localisation of function had been incontestably established before the whole physiological world in the case of one vertebrate animal at least. He then argued that the principle of localisation must be accepted as universal, unless the whole teaching of modern biology was a fallacy; and proceeded to show that such phenomena as were presented by frogs, pigeons, and Prof. Goltz's dog could be easily accounted for in harmony with the fundamental principle of localisation of cerebral function. He dwelt specially on the necessity of the study of comparative physiology in reference to the problems of cerebral physiology; and also on the necessity of accuracy and completeness in establishing lesions where the function of a particular cortical region was in question. The evidence of clinical medicine he did not discuss at length, merely referring to the facts in various works and journals. But the general conclusion was that cerebral localisation may be assumed as having established itself both in physiology and medicine. The next point discussed was whether the differentiation of function was a matter of accident, or whether it depended on structural peculiarities and connexions, which rendered the various cortical centres rigidly distinct from each other. The various facts and arguments on this head were considered, and the lecturer held that if all the facts were substantiated in reference to the permanency of the effects of cortical lesions,



and consecutive degeneration of tracts and organs, the question of the accidental or structural basis of localisation would be decided in favour of the latter. The most important question, in a practical point of view, was the exact delimitation of the various centres. On this he did not enlarge, as, among other things, it would necessitate bringing out much as yet unpublished work inopportunistically. He contented himself with merely indicating the points on which physiologists and physicians were at present more or less in agreement, or the reverse. Though the value of scientific investigation was not to be measured by its practical utility, yet the value of a scientific fact or principle was enhanced when it was useful as well as true. He proceeded to test the doctrine of localisation by the standard of practical utility. So far the benefits had been mostly absorbed by medical science itself, and the various directions in which scientific advance had been made were commented on. But when the goal of modern medicine—"localisation," according to Virchow—had been reached as regards cerebral disease, was it at all likely that practice would not be influenced? He held there was a grand future for cerebral surgery, and advocated on various grounds—among others, the unfailing success of stringent antiseptic precautions—the treatment by surgery of some of the most distressing forms of intracranial disease.

The PRESIDENT, in thanking Dr. Ferrier for his address, referred to the clearness and lucidity with which the subject-matter had been treated. He thought there were not many men who, handling such an intricate subject, would have stated the case so well as he had done. The President of such a Society, he said, was sometimes called upon to take up a subject and point out the lines on which it might be discussed; on this occasion, however, not only was it not necessary, it was not even open to him to do so; he could see many men present, physicians, as well as physiologists, who would doubtless have much to say on the points raised by Dr. Ferrier.

Dr. HUGHLINGS-JACKSON had listened with great interest to the paper, and he agreed with the President that the subject, considering its complexity, had been treated in a very lucid manner. He thanked Dr. Ferrier for mentioning the work which he (Dr. Jackson) had done on the question of localisation. His views, however, at best, were but guesses at truth, while Dr. Ferrier had scientifically demonstrated the absolute truth of the doctrine. He (Dr. Jackson) had held for the past nineteen years (about), and still held, the view that the localising centres lie in the cortex. Indeed, he even went further than the generality of thinkers, in believing that every part of the brain cortex represents either impressions or movements. The experimental investigation and demonstration of these facts was very valuable. They were valuable to the physiologist, and they satisfied also the requirements of the practical man. There were a few points on which he differed from Dr. Ferrier; but, on account of Ferrier's great accuracy and exactitude, he felt diffidence in his own views. If envy of an individual were ever permissible, he should certainly envy Dr. Ferrier, but with a most affectionate kind of envy.

Dr. ALTHAUS agreed with the President and Dr. Jackson as to the general excellence of Dr. Ferrier's discourse. On the whole, he would perhaps have preferred a little more specialisation. He was sorry to miss any reference to the labours of Johannes Müller in relation to reflex function, which he regarded as one of the most important discoveries since that of the circulation of the blood. Müller and Marshall Hall discovered the reflex function independently of each other, but Marshall Hall was the first to publish his observations. There was, however, abundant evidence in the works of Johannes Müller to show that he had long been acquainted with it, and that he was working out the subject previous to the publication of Marshall Hall's work. He quite agreed that the controversy between Goltz and Ferrier had terminated in favour of the latter—i.e., in favour of localised function. There were, nevertheless, still many able physiologists, including Hitzig, Munk, and others, who were at variance in many points with Ferrier; but he saw no reason why these differences might not be reconciled, as being probably due to differences in the modes of research. However defective at present, there was already great improvement in the diagnosis of brain lesions. He was a little disappointed with cerebral surgery. In future there was no reason why improvement should not take place. He had been devoting

his attention to the action of electricity on the cortex of the brain, and thought that good might result in certain cases.

Prof. SCHÄFER, as that member of the special committee (to which Dr. Ferrier had alluded) to whom the historical monkey's brain had been referred for examination and report, was pleased to be able to substantiate Dr. Ferrier's own statement, that the motor areas, which he (Dr. Ferrier) had attempted to remove, really had been *completely* removed. In fact, the lesions extended even deeper, and involved the subjacent white matter. There were also descending degenerative changes in the spinal cord. The experiments on monkeys' brains were more valuable and conclusive than on the brains of dogs. He quite thought that Dr. Ferrier's interpretation is the correct one: function is doubtless due to the efforts of the will in human beings, while in the lower animals it is probably performed by lower centres.

Dr. SHARKEY, in answer to a call from the President, said he had, during the past seven years, devoted much attention to the motor zones; and, as far as his own cases allowed him to judge, the results actually bore out Dr. Ferrier's observations. He had published at least six clinical cases, with the autopsies, representing lesions co-extensive with the whole motor area, in which the symptoms noticed during life had corresponded accurately to those described by Dr. Ferrier. Concerning the visual centre, he had also published two cases, one showing congenital absence of the angular gyrus, with extreme atrophy of the corresponding optic tract—again supporting Ferrier's views. Until quite recently, few observations had been made, connecting other parts of the cortex with the retina. But the most recent experiences of hemianopia point to the occipital lobe as being connected with vision; a view supported also by experimental investigation. He had recently brought before the Ophthalmological Society a case in which there were epileptic seizures, accompanied by a play of colours in the right field of vision of each eye. The disease had lasted two years and a half, and since the first fit the patient had had permanent paresis of the right arm and of the left side of each retina. Mr. Nettleship had carefully determined for him the field of vision, and found that the peripheral parts of the left half of each retina were paralysed, while the central parts and the right halves were intact. If this be a cortical lesion, as seems most probable, it would show that lesion of one part of the cortex can paralyse the peripheral parts of the corresponding halves of the retina without affecting the central parts, so that the centres for the two sets of fibres, though adjacent, must be separate. Some years ago, Ferrier suggested that such cases might occur. He thus found himself in complete accord with Ferrier's teaching.

Dr. MACLAGAN thought that certain parts of the brain were beyond the reach of experiment; that is, the centres of vital life. As regarded the thermic centre, he did not believe that hyperpyrexia was an essential part of fever, but rather an accident. Irritation of this centre was relieved by cold, not because it reduced the heat, but because it soothed the peripheral attachments to the thermic centre.

Dr. FERRIER replied. He said he had purposely omitted much that was controversial from his paper. It would have been impossible to do justice to the subject in the limited time at his disposal, and for this reason he did not reply to one or two points which had been raised.

The PRESIDENT, announcing the result of the ballot, declared that Dr. Douglas Powell had been unanimously elected Medical Secretary.

The meeting then adjourned.

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## OBITUARY.

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THOMAS JERVIS, M.D., J.P.

Dr. JERVIS, of Connaught-square, W., whose death was recently recorded in our columns, was born on November 6, 1809. He studied at St. George's Hospital, and took his M.R.C.S. degree in 1836. Ten years later he graduated M.D. at the University of St. Andrews, and became an M.R.C.P. in 1849. After a very busy and active life he retired from the practice of his profession in 1863, and in the same year was appointed a Justice of the Peace for Middlesex and Westminster. He was a member of the



Visiting Committees of Feltham, Hanwell, Colney Hatch, and Banstead Asylums, and a member of the Council of the Medical College, Epsom, in all of which institutions he took a great interest. He died on October 3, 1883.

## MEDICAL NEWS.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having undergone the necessary examinations at meetings of the Board on the 22nd, 23rd, and 24th inst., were admitted Licentiates in Dental Surgery, viz.: Burton, H. Sanford, Wellington, Somerset, student of the Middlesex Hospital.

Dorey, R. St. John, Brighton, of the Middlesex Hospital.  
King, Arthur, Burton-terrace, York, of the Charing-cross Hospital.  
Latchmore, Edward, Tunbridge Wells, of the Middlesex Hospital.  
McStay, John, King-street, Belfast, of the Middlesex Hospital.  
Petherbridge, James, Buckfastleigh, Devon, of the Middlesex Hospital.  
Pillin, H. Linsell, Conduit-street, W., of the Middlesex Hospital.  
Thomson, George, Melbourne, Australia, of the Middlesex Hospital.  
Woodhouse, A. E. Clayton, M.R.C.S., Hanover-square, of Guy's Hospital.  
Three candidates were referred. The following were the questions submitted to the candidates at the above examination, viz.:—Anatomy and Physiology: 1. Describe the antrum of Highmore in the human skeleton; give also its arrangement in the living subject. 2. What is the composition of saliva? State how the secretions of the several glands differ in composition. Surgery and Pathology: 1. Describe the different stages of bone caries, and give the treatment. 2. Describe the effects of mercurial salivation upon the mouth-structures, and contrast them with those of phosphorus. (The candidates were required to answer, from 2 to 4 p.m., at least one of the two questions, both on Anatomy and Physiology, and on Surgery and Pathology.)—Dental Anatomy and Physiology: 1. Describe and compare the dentitions of (i.) hyæna, (ii.) dog, (iii.) bear. State in general terms the characters which distinguish the dentitions of the aquatic carnivora. 2. Give an account of prognathism; enumerate the bones chiefly concerned in its production. 3. Describe the process of absorption of the temporary teeth. What are the conditions which further or retard it? Dental Surgery and Pathology: 1. What are the histological changes which occur in inflammation of the pulp? Describe its various terminations. 2. Under what circumstances should osteoplastics be employed for fillings in incisor teeth? What, in general terms, is the chemical composition of these materials? 3. Give the chief forms of perforate and cleft palates. Discuss the relative advantages of operative and mechanical treatment. (The candidates were required to answer, from 5 to 8 p.m., at least two out of the three questions, both on Dental Anatomy and Physiology, and on Dental Surgery and Pathology.)

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 18:—

Benson, Christopher Richmond, Granville-square, W.C.  
Blacker, Arthur Barry, St. George's-road, S.W.  
Clarke, James McFarlane, Palace-square, Manchester.  
Koettlitz, Maurice, Folkestone-road, Dover.  
Simmons, Edward Walpole, Wallington, Surrey.

## DEATHS.

GILLIES, WALTER, Surgeon 20th Punjab Native Infantry, in London, on October 15.  
LITTLER, JOHN HARRY, M.D., Surgeon-Major (retired), on October 22, aged 74.  
O'REILLY, JOHN, M.D., at 15, Brunswick-road, Brighton, on October 22, aged 68.  
SHUTTLEWORTH, ROBERT, M.R.C.S., at Kensal Green, on October 19.  
WARWICK, RICHARD ARCHER, M.D., formerly of Richmond, Surrey, at Teignmouth, on October 17, aged 51.

## VACANCIES.

**BOROUGH OF BIRMINGHAM HOSPITAL FOR INFECTIOUS DISEASES.**—Medical Superintendent. (For particulars see Advertisement.)

**BRIGHTON AND HOVE DISPENSARY.**—Resident House-Surgeon. Salary £140 per annum, with furnished apartments, coals, gas, and attendance. Candidates must be Members of one of the Royal Colleges of Surgeons of Great Britain or Ireland, and Licentiates of the Royal College of Physicians of London, or Licentiates of the Society of Apothecaries of London, and registered under the Medical Act. Diplomas, certificate of registration, and testimonials (under seal), to be addressed to the Chairman of the Committee of Management, Brighton and Hove Dispensary, Queen's-road, Brighton, on or before November 5. The election will take place on December 4.

**ROYAL BERKS HOSPITAL, READING.**—Assistant House-Surgeon. (For particulars see Advertisement.)

**FARRINGDON DISPENSARY AND LYING-IN CHARITY.**—Honorary Physician. Candidates must be Fellows or Members of the Royal College of Physicians, London. Applications, with testimonials, to be sent to the Honorary Secretary, 17, Bartlett's-buildings, Holborn-circus, E.C., on or before November 6.

**INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT,** 26, MARGARET STREET, CAVENTISH SQUARE, W.—Visiting Physician. (For particulars see Advertisement.)

**WREXHAM INFIRMARY AND DISPENSARY.**—House-Surgeon. Salary £100 per annum, with furnished rooms, gas, coal, and attendance, without board. Candidates must possess at least one qualification. Applications, enclosing testimonials, etc., to be addressed to the Secretary, J. Oswell Bury, Temple-row, Wrexham, on or before November 9.

**UNIVERSITY COLLEGE, LONDON.**—The Medical Entrance Exhibitions of £100 and £60 have been divided between Mr. E. B. Hastings and Mr. G. E. Rennie, and that of £40 has been awarded to Mr. C. H. Fernan.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—At a meeting of the Council, held on Thursday, October 18, the following gentlemen were elected Examiners in Dental Surgery for the ensuing year, viz.:—Edward A. Stoker, Edward Stamer O'Grady, Henry Gray Croly, Henry G. Sherlock, J. Daniel Corbett, and Arthur W. W. Baker.

**DR. SAUNDERS** reported on the 18th inst., at the meeting of the Hendon Board of Guardians, that there were twenty-seven cases of typhoid fever in the hamlet of Sudbury. Six of these broke out last week. All available means are being taken to check the spread of the disease. There have been no fresh cases within the last few days. The drainage of the district is bad, but the Board are about to carry out a new system.

**KING'S COLLEGE.**—The first meeting of the King's College Medical Society was held on Thursday week, when the newly elected President, Prof. Hamilton Cartwright, took the chair. A paper was read by Dr. John Phillips on the social position of the medical profession; and a scheme proposed by Surgeon-Major Watts for forming a student ambulance corps amongst the hospitals of London was also discussed.

A PLAN is being matured in Cambridge, under the auspices of the Order of St. John of Jerusalem, by Mr. Reynolds Rowe (*confrère*), who, with the cordial assent of the Bishop of the diocese, has purchased a central site in Cambridge, upon which he intends to build and endow a large free and open church, dedicated to St. John of Jerusalem. Hospital works are contemplated in connexion therewith, including an infirmary for the use of members of the University, a training school and home for nurses, and an ambulance centre.

**MUNICIPAL GRANTS TO THE DUBLIN HOSPITALS.**—The Corporation of Dublin recently appointed a committee of their own body to visit and report upon the hospitals receiving annual grants from the Municipal Council. The committee duly reported, and on Monday, October 22, the consideration of the yearly presentments for the hospitals was proceeded with at a largely attended meeting of the Corporation. A struggle took place as to the amount of the grant to be made in some instances, but in the end the amounts given last year were again voted to the several institutions, except the Mater Misericordiæ Hospital, to which a grant of £500 instead of £400 was made. The passing of the presentment for the Rotunda Lying-in Hospital was postponed, to enable the governors to attend and explain away certain charges brought against the hospital management by Mr. Thomas Mayne, M.P.

**THE PARKES MUSEUM OF HYGIENE.**—The following lectures will be delivered on Thursdays during the winter session, 1883-84, at 8 p.m. each evening:—November 1: Mr. Ernest Hart, Chairman of the Council of the National Smoke Abatement Institution, "On Smoke Abatement." November 15: Dr. Robert J. Lee, "On the Disinfection of the Atmosphere" (the lecture will be illustrated by experiments and demonstrations). November 22: Mr. George Murray, of the Natural History Department of the British Museum, "On the Potato Disease" (the lecture will be illustrated by microscopical preparations and diagrams). November 29: Dr. Charles Kelly, Professor of Hygiene in King's College, London, "Diseases caused by Sanitary Defects in Houses." December 6: Dr. G. V. Poore, Professor of Forensic Medicine in University College, London, "On Coffee and Tea." January 17: Mr. T. Pridgin Teale of Leeds, "Economy of Coal in Private Houses." The lectures will be followed by discussions.



## VITAL STATISTICS OF LONDON.

Week ending Saturday, October 20, 1883.

## BIRTHS.

Births of Boys, 1217; Girls, 1153; Total, 2370.

Corrected weekly average in the 10 years 1873-82, 2723.5.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	722	686	1403
Weekly average of the ten years 1873-82, corrected to increased population ...	801.5	743.0	1544.5
Deaths of people aged 80 and upwards ...	...	...	58

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	3	3	1	2	...	...	...	1	1
North ...	905947	2	12	9	6	...	...	8	1	12
Central ...	282239	...	3	1	...	1	2	...	...	4
East ...	692738	7	23	5	3	...	4	1	8	...
South ...	1265927	13	25	12	11	...	6	1	13	...
Total ...	3816483	25	66	28	22	1	20	4	38	...

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.551 in.
Mean temperature ...	...	...	...	...	...	51.3
Highest point of thermometer ...	...	...	...	...	...	64.6°
Lowest point of thermometer ...	...	...	...	...	...	39.1°
Mean dew-point temperature ...	...	...	...	...	...	45.2°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	1.03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 20, in the following large Towns:—

Cities and Boroughs	Estimated Population to middle of the year 1883.	Births Registered during the week ending Oct. 20.	Deaths Registered during the week ending Oct. 20.	Annual rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		
London ...	3955814	2370	1408	18.6	64.6	39.1	51.3	10.73	1.03 2.62
Brighton ...	111262	46	45	21.1	61.0	41.0	51.2	10.67	1.84 4.75
Portsmouth ...	131478	92	41	16.3	...	...	...	...	...
Norwich ...	89612	64	19	11.1	...	...	...	...	...
Plymouth ...	74977	47	25	17.4	61.0	45.3	52.3	11.28	2.16 5.49
Bristol ...	212779	111	61	15.0	60.0	43.0	50.3	10.17	1.88 4.78
Wolverhampton ...	77557	34	27	18.2	58.5	34.1	46.4	8.00	1.58 4.01
Birmingham ...	414846	231	153	19.2	...	...	...	...	...
Leicester ...	129483	99	48	19.3	62.5	38.8	43.6	9.23	1.10 2.79
Nottingham ...	199349	128	68	17.8	63.3	37.2	45.6	9.23	1.08 2.74
Derby ...	85574	5	27	16.5	...	...	...	...	...
Birkenhead ...	88700	63	32	18.8	...	...	...	...	...
Liverpool ...	566753	375	245	22.6	58.7	42.4	48.3	9.06	2.45 6.22
Bolton ...	107832	70	38	18.4	56.1	39.2	46.7	8.17	3.42 8.69
Manchester ...	319252	237	168	25.8	...	...	...	...	...
Salford ...	190465	142	91	24.9	...	...	...	...	...
Oldham ...	119071	68	34	14.9	...	...	...	...	...
Blackburn ...	108460	84	54	26.0	...	...	...	...	...
Preston ...	98534	70	35	19.5	58.0	41.5	49.0	9.44	2.61 6.63
Huddersfield ...	84701	45	28	17.3	...	...	...	...	...
Halifax ...	75591	32	20	13.8	...	...	...	...	...
Bradford ...	204807	121	74	18.9	59.5	40.0	48.2	9.00	2.21 5.61
Leeds ...	321611	222	165	26.8	61.0	40.0	49.3	9.61	1.29 3.28
Sheffield ...	295197	172	101	17.8	61.0	39.0	48.1	8.95	2.40 6.10
Hull ...	176296	135	67	19.8	62.0	38.0	48.2	9.00	2.23 5.66
Sunderland ...	121117	84	42	18.1	...	...	...	...	...
Newcastle ...	149164	104	84	23.3	...	...	...	...	...
Cardiff ...	90033	64	40	23.2	...	...	...	...	...
For 28 towns ...	5620975	5395	3240	19.6	64.6	34.1	49.0	9.44	1.95 4.95
Edinburgh ...	235916	133	74	16.4	59.0	33.1	47.5	8.61	1.22 3.10
Glasgow ...	515389	359	218	22.1	59.5	34.5	46.6	8.12	1.75 4.44
Dublin ...	349 85	1.0	156	23.3	58.8	36.3	46.2	7.89	0.65 1.65

At the Royal Observatory, Greenwich, the mean reading the barometer last week was 29.55 in.; the lowest reading was 29.12 in. on Wednesday morning, and the highest 29.95 in. on Thursday evening.

## NOTES, QUERIES, AND REPLIES.

\*He that questioneth much shall learn much.—Bacon.

## THE BOAST FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Please acknowledge the following additional amounts for the above-named fund. Amount already acknowledged, £37 9s. 6d.:—A. B. Z., 10s. 6d.; — Appleford, Esq., Finsbury-circus, £2 2s.; Dr. M. Balding, St. Albans, £1 1s.; T. M., 10s.; Dr. Clay, Plymouth, £1 1s.; E. Jackson, Esq., Jesmond, 10s.; K., £1 1s.; E. Softe, Esq., East Hurling, 10s. 6d.; Dr. Cufaude, Acle, 10s.; Francis Clowes, Esq., Stalham, £1 1s.; Hugh Taylor, Esq., Cottishall, 10s. 6d.; Fairlie Clarke, Esq., Southborough, £1 1s.; Mrs. E. P. Clark, Wymondham, £5; Dr. Eade, Norwich, £5; Dr. Gairdner, Glasgow (per Mr. Cadge), £5; C. Williams, Esq., Norwich, £3 3s.; Dr. Burnley, Norwich, £2 2s.; Dr. Lomb, Torquay, £2 2s.; Mrs. Tallint, Hingham, £2; Dr. Rudge, Fakenham, £1 1s.; Dr. Alexander, Wotton, £1 1s.; Dr. Lowe, Wymondham, £1 1s.; J. Candler, Esq., Hurleston, £1 1s.; Dr. Lowe, Lynn, £1; Dr. Hills, Thorpe, £1; J. Brownfield, Esq., Norwich, £1; Dr. Dale, Lynn, 10s.; Bis Dat qui Cito Dat, 2s. 6d. I am, &c.,  
1, St. George's-terrace, Plymouth, Oct. 23. GEORGE JACKSON.

## PROPOSED TESTIMONIAL TO DR. JOSEPH ROGERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you permit me to draw the attention of your readers to a movement which has been set on foot with the view of presenting to Dr. Joseph Rogers, the President of the Poor-Law Medical Officers' Association, a testimonial as a mark of the esteem in which he is held by Poor-law medical officers, and as a recognition of his unwearied advocacy of their claims, his fearless exposure of injustice done to them, and the able assistance and advice which he has freely given to such of them as have been unfortunate enough to be at variance with their boards.

The unjust treatment Dr. Rogers has received at the hands of the Westminster Guardians, will, I hope, shortly be brought before the Local Government Board, but I venture to suggest that no better time than the present could be chosen for his fellow-officers to express their sympathy with him, and that such an expression from a large number would show that they have appreciated his labours on their behalf, that in a good cause they are capable of acting in concert, and that they respect themselves and their office in manifesting respect for one who has fearlessly done his duty, although, for doing it, he has received the usual punishment accorded by guardians to parochial medical officers.

The following gentlemen have kindly promised to receive subscriptions, viz.:—Ernest Hart, Esq., Editor of the *British Medical Journal*; C. Frost, Esq., Treasurer Poor-Law Medical Officers' Association, 47, Ladbroke-square, Notting Hill, London; J. Wickham Barnes, Esq., Secretary Poor-Law Medical Officers' Association, 3, Bolt-court, Fleet-street, London. Shrewsbury, October 23. I am, &c., FRANCIS WHITWELL.

## THE HIND FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The feeble response of his old pupils to your appeal on behalf of Mr. George Hind must make him exclaim with Shakespeare—

"Blow, blow, thou winter wind;  
Thou art not so unkind  
As man's ingratitude."

Surely when one considers how many men at the present time owe their position mainly to Mr. Hind, and how more than probable it is that, had it not been for this discoverer of all but a royal road to learning, they would have been debarred from entering the profession, it is to be hoped that the appeal for funds will yet meet with a generous and wide response.

Let it not be said by Mr. Hind that "Those you make friends and give your hearts to, when they once perceive the least rent in your fortunes, fall away." I exhort my professional brethren therefore to "withhold not good from him to whom it is due, when it is in the power of thine hand to do it."

I am, &amp;c.,

W. DOMETT STONE.

The following additional subscriptions have been received and paid to the account of the "Hind Fund," at Messrs. Coutts' Bank:—Sir W. Jenner, Bart., £5 5s.; Sir E. Saunders (additional donation), £3 3s.; Dr. Semple, £3 3s.; Dr. R. Quain, £3 3s.; Sir Spencer Wells, Bart., £2 2s.; Dr. R. Livinge, £2 2s.; Prof. Thane, £2 2s.; Timothy Holmes, Esq., £2 2s.; Dr. Wilson Fox, £2 2s.; J. Gay, Esq., £1 1s.; Dr. Walsh, £1 1s.; — Allard, Esq., £1 1s.; Dr. Augustus Brown, £1 1s.; J. R. Walker, Esq., £1 1s.; Irish Pupil, £1; Sir James Paget, Bart., £5 5s.; J. E. Erichsen, Esq., £5 5s.; William Adams, Esq., £2 2s.; Dr. J. T. Powell, £2 2s.; Dr. C. J. B. Williams, £2 2s.; Hunter Barron, Esq., £1 1s.; Dr. A. de Noé Walker, £1 1s.; H. G. S., £1 1s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

A meeting of the General Committee of the fund will be held, by the kind permission of the directors, in the Board-room of the Briton Life Offices, on Thursday, November 1, at 5.30 p.m.

*A Practical Estimate of Sanitation.*—Speaking at a meeting at Nottingham, the other day, Alderman Worth is reported to have said that the average yearly death-rate per thousand in Nottingham was between 22 and 23, and Dr. Seaton had told him that if the sanitary conditions were right it would be only 17. What did that indicate? How many people had died who would not have died if the conditions had been right? About 500 a year. If 500 people were embarked on a leaky vessel, and the ship went down, there would be an outcry from one end of the country to the other. And let them imagine that repeated year after year! But here was the same thing going on yearly in their midst, and yet when efforts were made to improve the sanitary condition of the town they were met with this talk about economy. They might talk about their 5 per cent. for their money; they might talk about their big debt; but at what estimate would they put that when they could save 500 lives yearly?



**Abstainer.**—The prohibitory liquor amendment to the State Constitution of Ohio has been defeated by a majority of about 75,000.

**Economist.**—The expenditure of the Metropolitan Asylums Board in 1881 was about £125,000, and in 1882 £386,125. This increase chiefly arose from litigation.

**Wallace, Marylebone.**—There are 105 churchyards and disused burial grounds in the metropolis, thirty-three of which have been laid out or are being adapted for recreation purposes.

**Chester Infirmary.**—The Duke of Westminster has just sent to this Infirmary the sum of £560, the proceeds of a small charge to visitors, numbering 11,200, for inspecting Eaton Hall since its re-opening.

**The Question of Quarantine.**—The three remaining members of the Pasteur Cholera Commission have returned to Paris from Egypt. They are of opinion that the immunity enjoyed by Marseilles from cholera is due to the rigorous enforcement of quarantine regulations, as this is the first time that the city has escaped the scourge when the disease has been raging at Alexandria.

**Oxford: Examination in Preventive Medicine.**—An examination for the certificate of proficiency in subjects bearing on preventive medicine and public health will be holden in the second week of December. Intending candidates, who must have passed all the examinations for the degree of Bachelor of Medicine of this University, are requested to send their names to the Regius Professor of Medicine on or before November 1.

**A Quack Doctor: A Criminal Operation.**—At Ashton-under-Lyne, a coroner's jury has returned a verdict of wilful murder against Thomas Arthur Ford, an unqualified medical practitioner, for performing an illegal operation on a servant-girl, aged twenty-four, who was *enceinte*, which resulted in her death. A post-mortem examination was made by Dr. Macquire, of Manchester Infirmary, and Dr. Julius Dreschfeld, of Owens College, after which the delinquent was arrested.

**Scarlet Fever in Dundee.**—The sanitary authorities have for some time past been perplexed as to the serious outbreaks of scarlet fever in Dundee. An inquiry into the cause of these visitations has led to the discovery of nineteen cases of a very virulent type, four of which were subsequently fatal, and traced to milk supplied from a particular dairy. The dairyman's grandson, while suffering from the fever, was in the room where the milk was sold. The case was brought before the magistrate, and the dairyman was fined £5 for an offence which his Worship designated as "most serious."

**The High Rate of Lunacy, Birmingham.**—The Local Government Board has communicated with the Birmingham Board of Guardians, with regard to the extraordinarily high rate of lunacy in the town, and the serious allegations against their medical officers. The percentage of the pauper lunacy of the borough was the highest in the kingdom, and about double the average rate. As to the allegations against the medical officers, the Guardians had asked for an explanation from them, but only two of them had replied—Drs. Suffield and Jackson,—their letters being to the effect that on the advice of their solicitors they declined to give any information which might be used against them, the Guardians being the accusing parties. They (the medical officers) had written to the central authority, soliciting an immediate investigation of the charges. The latter have asked for further information from the Guardians, and the matter has been referred to a committee for inquiry and report.

**Medical Baronets.**—From a return issued this week, it appears that the baronetcies conferred on "physicians and surgeons" since 1850 were as follows:—In 1853, Henry Holland, one of Her Majesty's Physicians-in-Ordinary; 1857, Charles Locock, of Speldhurst, Her Majesty's First Physician-Accoucheur; 1859, Sir Charles Nicholson, of Luddenham, New South Wales; 1866, William Fergusson, of Spittlehaugh, Peebles, one of Her Majesty's Surgeons Extraordinary; 1836, James Young Simpson, of Strathavon, Linlithgow, one of Her Majesty's Physicians in Scotland; 1866, Dominic John Corrigan, of Cappagh, Dublin, one of Her Majesty's Physicians-in-Ordinary in Ireland; 1866, Thomas Watson, of Henrietta-street, Cavendish-square, President of the College of Physicians, and one of Her Majesty's Physicians Extraordinary; 1867, William Lawrence, of Ealing Park and Whitehall-place, one of Her Majesty's Serjeant-Surgeons; 1868, William Jenner, of Harley-street, Cavendish-square, one of Her Majesty's Physicians-in-Ordinary; 1871, James Paget, of Harewood-place, Hanover-square, Serjeant-Surgeon to Her Majesty; 1871, Robert Christison, of Moray-place, Edinburgh, one of Her Majesty's Physicians in Scotland, and Professor of Materia Medica in the University of Edinburgh; 1872, William Withey Gull, of Brook-street, Hanover-square; 1874, George Burrows, of Cavendish-square, President of the Royal College of Physicians, and one of Her Majesty's Physicians-in-Ordinary; 1883, Thomas Spencer Wells, of Upper Grosvenor-street and Golder's Hill, Hampstead, President of the Royal College of Surgeons, and Surgeon to Her Majesty's Household; Andrew Clark, of Cavendish-square, M.D.; and Prescott Gardiner Hewett, of Chesterfield-street, Hanover-square, Serjeant-Surgeon Extraordinary to Her Majesty. Since 1852 the honour of knighthood has been conferred on thirty-two "physicians and surgeons"; and between 1863 and 1876 four received the honour of knighthood from the Lord-Lieutenant of Ireland.

**The Asylum of the Barony (Glasgow) Parochial Board at Lenzie.**—An addition of a farm, standing on the grounds of Woodielee, has just been made to this institution. The new building is constructed for carrying on a dairy farm. It will accommodate fifty inmates, twenty-five of each sex. These belong to the harmless class of patients, and have all previously been engaged in farm work. The total cost, including the furnishing, is estimated at about £10,000.

**Gin in Camberwell.**—Dr. Bernays, in his report to the Camberwell Vestry, states that a specimen of gin was of much higher standard, speaking alcoholically, than required by the law; it contained 75, instead of 65 per cent. of proof spirit. Certainly in the interest of temperance he did not regard it as an advantage, any more than the sale of slightly diluted spirits. The latter is not satisfying, and is sure to be followed by a second dose; the former is injurious. The seller of this gin evidently thinks it is safer to trade in the article above, rather than below, the legal standard.

#### COMMUNICATIONS have been received from—

Prof. G. M. HUMPHRY, F.R.S., Cambridge; Dr. NORMAN KERR, London; Dr. CRICHTON BROWNE, London; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, Edinburgh; Mr. P. SCATTERGOOD, Leeds; Dr. SKERRITT, Bristol; Dr. H. E. ARMSTRONG, Newcastle-on-Tyne; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. E. GURNEY, London; Dr. CLIFFORD BEALE, London; Dr. DOMETT STONE, London; Dr. PEARSE, Plymouth; Dr. J. W. MOORE, Dublin; THE EDITOR OF THE "ISLE OF MAN TIMES"; Mr. NOBLE SMITH, London; THE SECRETARIES OF THE HUTCHINSON TESTIMONIAL FUND, London; Dr. DUDFIELD, London; Mr. J. CHATTO, London; Mr. MARK H. JUDGE, London; Dr. DAWSON WILLIAMS, London; Mr. T. M. STONE, Wimbledon; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Mr. F. WHITWELL, Shrewsbury; Mr. G. JACKSON, Plymouth; Mr. H. D. COLE, Southampton; THE HON. SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—American Journal of Obstetrics—Journal of Anatomy and Physiology—Denver Medical Times—Revue d'Hygiène—Maryland Medical Journal—Philadelphia Medical Times—Therapeutic Gazette—Nottingham Journal, October 20—Australasian Medical Gazette—Bombay Gazette, September 15.

### APPOINTMENTS FOR THE WEEK.

#### October 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### 29. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. MEDICAL SOCIETY OF LONDON, 8½ p.m. Prof. Lister, "On the Treatment of Fractures of the Patella."

#### 30. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

#### 31. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. R. Douglas Powell, "On the Treatment of Phthisis in its Advanced Stages."

#### November 1. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

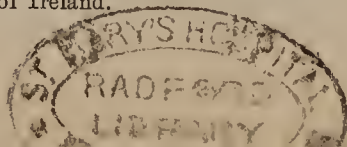
ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Mr. S. Paget, "On Burns and Scalds."

PARKES MUSEUM OF HYGIENE, 8 p.m. Mr. Ernest Hart, "On Smoke Abatement."

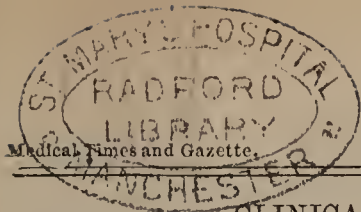
#### 2. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY. General Meeting.







CLINICAL LECTURE  
ON  
SPASTIC PARALYSIS.

By A. HUGHES BENNETT, M.D.,

Physician to the Hospital for Epilepsy and Paralysis, and Assistant-Physician to the Westminster Hospital.

GENTLEMEN,—I need not remind you that “Spastic” or “Spasmodic Paralysis” is the clinical expression given to a definite series of symptoms, and so called, because muscular spasm or rigidity is the leading feature of the disorder. The disease has also, from a pathological standpoint, been termed “Lateral Sclerosis,” as recent researches seem to show that it is the result of degeneration of the lateral columns of the spinal cord. I prefer to employ the former name, as it involves no theory, and is a convenient title to indicate the prominent clinical aspect of the affection. In some of its forms, spastic paralysis is extremely common; in others it is supposed to be very rare. In some cases it is due to demonstrable destructive disease of the nervous system; in others, precisely the same symptoms ensue without discoverable tissue-change. In some instances the disorder persists for life, and is followed by a fatal termination; in others it is succeeded by rapid recovery. The diagnosis and prognosis of this condition are therefore of the greatest importance, and I make no excuse for directing attention to some practical points connected with it. The general symptoms have been observed from the earliest ages, but their true significance has not been determined till comparatively recent times. For this we are mainly indebted to the pathological researches of Türck, Vulpian, Bouchard, Pitres, Charcot, and others, whose labours have thrown a flood of light upon the subject, and greatly facilitated our conception of the disease.

Spastic paralysis in all its forms presents a definite and characteristic clinical picture. Without entering into the symptoms in detail, it may be stated that these consist of a chronic form of paresis, accompanied with rigidity and spasm of the muscles, contracture of the limbs, and exaltation of the tendon reflexes. Associated with these, there is no loss of sensibility, no muscular atrophy, no trophic changes, no abnormal electrical reactions, and no impairment of the functions of the brain, rectum, or bladder. Such are the characteristic features of spastic paralysis, a modification or combination of which determines that special clinical sequence of events met with in all its forms, from whatever cause induced. This train of symptoms may occur in two ways. It may appear independently, and is therefore termed primary; or it may be the result of another lesion, in which case it is called secondary. It is to the researches on the secondary form, which is a very common condition, that most of our knowledge on this subject is due, and its anatomical changes after death, and their relation to the symptoms during life, have now been very accurately determined. It has for long been known that certain diseases of the brain and cord were followed by spastic symptoms, but it was reserved for the authorities already mentioned to demonstrate the exact pathological changes which led to this result. Both experiment and pathology have shown that any destructive lesion of the pyramidal tract, extending between the cortex of the brain and the lower portion of the spinal cord, is followed by sclerotic degeneration of its centrifugal fibres, and all the parts supplied from such affected portions are found to be in a condition of spastic paralysis. Thus disease of the motor fibres of the corona radiata, the internal capsule, the crura cerebri, the pons, the medulla, and the lateral columns of the cord—in other words, any part of the pyramidal tract—is invariably followed by secondary degenerative changes, and accompanied by the symptoms under discussion. It has been, moreover, determined that in the cortex of the brain itself there exist certain localities which experiment and pathology have indicated to be associated with voluntary motion. In these regions, and in these regions only, there have been found certain cell-elements of peculiar conformation, and similar to those found in the anterior cornua of the cord. These are believed to be motor in function, and to originate voluntary movements. It has been further ascertained, that when this locality is exten-

sively involved in disease and these special cells destroyed, secondary descending sclerosis in the pyramidal tract follows, and ultimately spreads throughout its whole extent to the cord. As a rule, the disease is arrested at the lateral columns, and does not extend to the other parts of the spinal marrow. The most plausible theory to explain these phenomena, is that the ganglionic cells which exist in the motor cortical convolutions of the brain act as trophic centres for the nerve-fibres of the entire pyramidal tract. When these are destroyed, or severed from the parts below by a lesion in any part of this system, the centrifugal fibres degenerate, and ultimately induce what has been termed lateral sclerosis. This hypothesis is further supported by the fact that disease of no other portion of the brain or cord is followed by secondary degeneration. Whatever theory we adopt, the practical fact remains, that demonstrable changes ensue in all the motor fibres, when their origin in the cortex of the brain is destroyed, or when there is a rupture of continuity at any part of their course. It is such changes in the spinal cord which lead to spastic paralysis. Whatever symptoms may have originally existed as a result of the primary disease, when the secondary lesion follows there appear, in addition, the muscular rigidity, the contractures, and the increased tendon reflexes. These are supposed to be the result of increased muscular tone, or augmented reflex excitability, due, partly to the inhibitory influence of the brain being intercepted, and partly to irritation of the spinal grey matter without structural change, caused by the sclerosis of the neighbouring lateral columns.

These pathological facts, and their association with characteristic clinical symptoms, in secondary degenerations having been determined, the existence of a primary lateral sclerosis has been assumed. This has been more particularly insisted upon by Professors Erb and Charcot. We meet in practice with cases in which all the symptoms of spastic paralysis are slowly developed, and generally from below upwards, in which there is no reason to suppose that the affection is consequent on pre-existing disease. We therefore conclude that this is idiopathic or primary, and that the degeneration began in the pyramidal tracts of the cord. The symptoms are so perfectly in accord with those which have been proved to succeed sclerosis of this locality, as to make our assumption in the matter almost certain. Pathological anatomy has, however, been singularly wanting in actual proof of this belief, but there is at least one case recorded in which the fact seems to be demonstrated. In the *British Medical Journal* for January, 1881, there is published a typical case of Spastic Paralysis by Drs. Morgan and Dreschfeld, in which post-mortem examination revealed sclerosis of the crossed pyramidal tracts, and of these regions only. Dr. Byrom Bramwell likewise made sections of the same tissues, and in his work on Diseases of the Spinal Cord furnishes an excellent chromo-lithograph of the morbid appearances. There have also been several autopsies in cases of what Charcot has called Amyotrophic Lateral Sclerosis, the first stage of which is practically primary spastic paralysis, and is only subsequently complicated, as a secondary affection, with atrophic changes in the muscles. In these it has been demonstrated, that although the motor cells of the anterior cornua are degenerated, the crossed pyramidal tracts are extensively sclerosed, and it is probable that this last is alone accountable for the spastic symptoms.

In most memoirs on the subject it is stated that primary spastic paralysis is a rare disease; but it appears to me that it is more common than is generally supposed, and that hitherto it has been placed in the category of other nervous affections. In my own limited experience, during the last few years, I have the records of no less than fourteen cases in which the history, progress, and symptoms were so characteristic and definite as to warrant me in considering them as specimens of this disease. Of these, seven occurred in men, and seven in women, between the ages of fifteen and forty. In all the affection was chronic, without apparent cause, and presented all the typical phenomena. It is more than probable, that as a more exact knowledge of the recent discoveries in nervous diseases is diffused amongst the profession, such conditions will be recognised with greater accuracy, and that this special disorder will be found to exist in more equal proportion with the other system-lesions of the cord. We know that the only two other such diseases we are acquainted



with—namely, chronic sclerosis of the anterior cornua and of the posterior columns—are by no means rare, and occur in tolerable proportion to one another; and there is no *a priori* reason to suppose that the lateral columns, which are of similar nature, should be specially exempt from like degenerations. During the life of the patient there is always a doubt as to the primary nature of the affection, and the existence of this can only be proved by future pathological researches.

In connexion with this subject there is a point of great practical interest to which I would direct attention. Although it has been determined that spastic paralysis may be accounted for by disease of the pyramidal tracts in the cord, there are numerous instances where exactly similar symptoms ensue, in which we have every reason to believe that no permanent changes exist. In certain cases of Hysteria, for example, we have the typical picture of this disorder; and as some of these under favourable circumstances rapidly recover, we assume that the cause of the symptoms is functional, and not organic in nature. I have met with many such cases, in which paresis, with rigidity, contracture, the characteristic deformities of the limbs, increase of tendon reflexes, without impairment of sensibility or trophic changes, has occurred in young women, in whom the symptoms appeared insidiously, and were of such a character as in every respect to simulate the disease under consideration. It is true that in many instances the circumstances of the case suggest this as being of hysterical origin, but in many there are no such indications. The two affections appear identical, and I know of no single point which serves to differentiate between them. The proof, however, that there is such distinction is, that the one lasts for years or for life, while the other occasionally recovers under circumstances which show that it was of a temporary nature. A decision on this question is obviously of the greatest practical importance, as, given a young woman presenting such a condition, is her state due to organic central change, or to transient derangement? I leave it to others to suggest some solution of this problem, as I confess I have met with not a few cases in which I found it impossible to come to any decision on the matter. This leads to great embarrassment on the part of the physician, who, not having definite guidance, treats the patient according to the view he may take of the question. Thus it happens that many unfortunate women suffering from spinal disease are considered as hysterical, and others, who by a vigorous régime might be rapidly cured, are incarcerated for life as hopeless invalids. An interesting example of this difficulty is to be found in a case published by Professor Charcot in 1865, under the heading of "Sclerosis of the Lateral Columns of the Cord in a Hysterical Woman suffering from Permanent Contracture of all Four Limbs." This patient was paralysed for nine years before she died, and although she may have presented some symptoms of hysteria, the spastic paralysis arising from the definite lesion discovered after death could scarcely be placed in that category. Therefore, though during life she may have been looked upon as a hysteric, the case in reality was subsequently proved to be one of true primary lateral sclerosis.

It is commonly assumed that nothing is more easy than to distinguish a functional from an organic lesion; but, as far as my experience goes, in many instances nothing is more difficult, and this particular affection is an illustrative case in point. I have met with several instances in which the most experienced physicians, with every care on their part, were at fault, much to the disadvantage of the patient, and discomfiture of themselves. As a matter of fact, although experience tells us that it is possible for such hysterical paralysis to recover, as a rule this condition is sufficiently grave to cause great anxiety and trouble to the medical practitioner. What the pathological representations of such functional disorders are, we do not know, but it is interesting to observe that their manifestations follow exactly the same order as those resulting from structural disease. Here also we find symptoms indicating derangement of the pyramidal tracts in their entire extent, and studiously avoiding any other systems in the nervous organisation. This is evidence of the reality of the disorder, to its independence of the voluntary control of the patient, and points to some influence, of which we are ignorant, affecting the nervous system in strict physiological sequence. Various hypotheses may be, and have been, advanced to explain these phenomena. I do not propose to offer one for

your acceptance, as I consider those which might be put forward, if plausible in some respects, are open to objection in others. The theory which appears to account best for the facts is that which assumes that the functions of the voluntary cortical centres are temporarily in abeyance, and, the inhibitory action of the brain being thus removed, the reflex excitability of the cord is in consequence augmented, thus accounting for the paralysis and symptoms of reflex irritation. It seems to me, however, that it is yet to be proved that the simple removal of cerebral volition is sufficient by itself to cause such excessive and permanent functional abnormalities, as the rigidity, contractures, and exaggerated reflexes. It might also be argued that if the cortical centres, including the motor ganglion cells, are in such a state of inactivity as to induce such symptoms, the other consequences of their deficient function would follow, namely, trophic changes in the pyramidal tracts. This, we know by experience, need not of necessity be the case. Whether a chronic functional derangement is capable of ultimately ending in actual structural change, we do not know; according to this trophic theory, it is possible, and the progress of chronic hysteria makes it appear probable, though there is no positive anatomical evidence of the fact. We can only say that, like strychnine, which temporarily causes somewhat similar conditions, in hysteria we have, from unknown causes and for unknown reasons, some change in a special physiological tract of the nervous system, which, although sometimes capable of recovery, is frequently permanent, and that without apparent or necessary structural change. It is of the utmost importance that this should be distinguished from the same symptoms due to organic degeneration, and although, in the present state of medical science, this is a problem of extreme difficulty, we must hope that, as our knowledge extends, the differential diagnosis will be made with facility and precision.

## LECTURES

ON

## THE PROTECTIVE AND LACRIMAL APPARATUS OF THE EYE.

*Delivered at the Royal College of Surgeons.*

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### LECTURE III.—PART II.

(Continued from page 421.)

THE *lacrimal sac* is a nearly cylindrical passage, occupying the whole bony semi-canal between the crista posterior of the lacrimal bone and the crista anterior of the ascending process of the superior maxillary bone. It is situated immediately behind the tendon of the orbicularis. Its length from above downwards is usually about half an inch, or 12 mm., but it may be not longer than 11 mm., or as long as 14 mm. Its breadth in the middle is from  $4\frac{1}{2}$  to 5 or even 6 mm. Below, where it becomes continuous with the nasal duct, it is from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  mm. Its direction is not vertical, but slightly oblique, downwards, forwards, and outwards. The free anterior and external part of its wall is somewhat flattened. Sappey describes—1. An antero-external wall, which corresponds in front to the skin and to the tendon of the orbicularis, a little further back to the reflected portion of the same tendon, and also to the muscle of Horner, and inferiorly is in relation to the obliquus inferior of the eye, the innermost fibres of which are frequently inserted into this wall of the sac; 2. A postero-internal wall, which is in relation with the bony wall of the groove, with the upper border of the middle turbinal bone, and lastly to the highest point of the middle meatus. The upper extremity of the sac is formed by a rounded *cul-de-sac*. The internal surface is of pale rose tint, and when laid open it presents on its outer wall, at the level of the tendon of the orbicularis, and nearer to the crest of the os unguis than to this tendon, a circular opening, which constitutes the embouchure of the common duct of the canaliculi.



The mucous membrane lining the sac presents a covering of ciliated epithelium, and it is supported externally by a strong layer of fibrous tissue, which is almost limited to the antero-external wall. Elsewhere, in all those parts in which the soft parts are in relation with bone, the mucous membrane is only separated from the thin periosteum by a thin layer of connective tissue, which, according to Robin and Cadiat, is quite distinct in structure from both the periosteum and the membrane. It is characterised by its transparency and by the absence of any glands like those seen throughout the whole extent of the nasal fossæ. It contains much elastic tissue, but is firm and resistant of tension. It is vascular, containing both arteries and veins; and the veins are so numerous, except in the thicker portion which forms the outer free wall of the sac, as to resemble cavernous tissue.

The nasal duct is directly continuous with the lacrimal sac, and the two, as Sappey observes, constitute but one canal, of which the upper part lies in a hollow of the inner part of the orbit, and the lower in a hollow of the external wall of the nasal fossa. Its direction is also continuous with that of the sac, for this sac has been seen to be directed downwards, forwards, and outwards; the duct at first also runs downwards, but soon bends backwards without approximating or receding perceptibly from the median plane. The whole lacrimo-nasal passage therefore describes a curve, the convexity of which looks forwards and outwards; and a perpendicular dropped from the middle of the sac would fall to the inner side of the nasal opening. The whole length of the lacrimo-nasal passage varies in different subjects from 25 to 28 mm., and, speaking generally, the sac and the duct each form about one-half of the whole length. The length of the outer and anterior wall is from 4 to 8 mm. longer than the inner and posterior wall. It is nearly cylindrical, but its diameter is smaller above, near the lacrimal sac, where it does not exceed  $2\frac{1}{2}$  to 3 mm.; below, it is slightly wider,  $3\frac{1}{2}$  mm.

The mucous membrane of the nasal duct has been very minutely described by Robin and Cadiat. It has a thickness of about one-thirtieth to one-fiftieth of an inch. Its surface, even when the epithelium is removed, is smooth and even. In some subjects, indeed, it presents slight folds or grooves, but the epithelium lining them preserves its usual characters, and in some old people the surface forms projections, and the whole membrane is thickened, which has led to its being termed tomentose. The subepithelial layer is made up of laminar fibres, of which many are in the state of fibro-plastic cellules, and of elastic tissue-fibres, forming plexuses with nuclei, which occur either isolated or in small groups. Between this and the epithelium is a limiting hyaline layer of amorphous substance, free from fibres and nuclei. Externally, the membrane passes into loose fibrous tissue. The membrane everywhere presents arterioles, which divide and form a close superficial plexus. There are also many nerve-fibres, the terminations of which are concealed. There are no glands except in the valvular fold at the lower orifice, and even these open into the nasal fossæ and present the characters of those found elsewhere in the nasal fossæ, being composed of several minute lobules; yet, notwithstanding the absence of glands, the whole surface appears to be capable of secreting mucus.

The opening by which the nasal duct opens into the inferior meatus corresponds sometimes to the summit, sometimes to the outer wall. In the latter case, which is the most common, it descends 3 to 4 and even 5 mm. below the summit towards the floor of the fossa. Its relations have been particularly minutely described both by Lesshaft and by Sappey. According to Sappey, the diameter and form of the orifice are subordinate to its position. When the orifice is in the vault of the meatus it is always very large, rounded, and infundibuliform, so that the tears then fall without obstruction, and by their own gravity, on to the floor of the meatus; but if the opening be situated on the lateral and external wall of the meatus it is much narrower, it loses its rounded form, and it becomes vertically or, as Lesshaft states, transversely oval. The lower the orifice, the smaller is its size, so that, when it descends 4 or 5 mm. below the vault, it appears only as a vertical fissure that is not always easily discoverable. Sappey states that in four instances, after having completely separated the external wall and washed the surface, he was quite unable to per-

ceive the inferior orifice of the canal by inspection or by the use of the probe, and was only able to demonstrate it by injecting the canaliculus, when the fluid immediately appeared at a small vertical slit  $1\frac{1}{2}$  mm. long in the middle of the external wall of the inferior meatus. Its length may, however, vary from  $1\frac{1}{2}$  to 8 mm., and its breadth from  $\frac{3}{4}$  to 5 mm. Its distance from the floor of the nose is in some cases only 2 mm.; from the anterior border of the bony opening of the nares it is from 10 to 13 and occasionally 17 mm.

The lower part of the internal wall of the canal is not bounded by bone, but by a duplicature of the mucous membrane, the lower free border of which limits the upper border of the aperture. This fold was noticed and described by J. B. Morgagni;(a) but I shall have to allude to the folds of the lacrimal passage more particularly in considering the physiology of these passages.

The lacrimal gland receives its nervous supply from the sympathetic and from the upper division of the fifth, which was formerly regarded as a purely sensory nerve, but which must contain vaso-motor and secreto-motory fibres. The subcutaneous malæ also give branches to it. It certainly contains fibres of different sizes. R. Wagner noticed what he considered to be a large admixture of sympathetic fibres; whilst Volkmann and D'Alton(b) observed ten times as many fine as broad fibres. Frerichs states that in a Lamb he counted in a branch of this nerve forty slender filaments and three broad ones, but in another adjoining branch the proportion was not so great.

Swan, Magendie, and Cruveilhier state that the fourth nerve gives off the lacrimal nerve either wholly or in part. This, however, is only due to the circumstance that the fourth nerve lies in the outer wall of the cavernous sinus in close contiguity with the ophthalmic of the fifth, with which it communicates. It is not, therefore, surprising, as Longet remarks, that fibres of the ophthalmic, previously applied to the fourth, should detach themselves again and proceed to the gland.

The lacrimal nerve runs along the external and upper part of the orbit, and divides into two branches—a superior, internal, or anterior branch, and a posterior, inferior, or external branch. The former traverses the gland, and then breaks up into filaments, distributed to the conjunctiva and upper eyelid near the outer canthus. The external branch turns downwards, and joins the subcutaneous malæ of the second branch of the fifth. From the convex side of this communication, branches proceed to the gland. This accounts for the fact that stimulation both of the lacrimal and the subcutaneous malæ may excite a flow of tears. Turner has seen the gland supplied by the zygomaticus malæ when the lacrimal has been absent.

The artery of the lacrimal gland is named the lacrimal artery, and is a branch of the ophthalmic artery. It runs to the gland between the external and the superior recti muscles along the external wall of the orbit. It sometimes arises from the middle meningeal artery, or from the deep temporal, with which the lacrimal artery sometimes anastomoses.

The lacrimal vein has the same course, and runs into the ophthalmic vein.

The lacrimal gland can be stimulated to secrete either by direct or by reflex stimulation.

We are chiefly indebted to Herzenstein for the experimental evidence demonstrating the particular nerves which are distributed to the gland by direct stimulation. He experimented on Rabbits, Cats, and Dogs.

In the Rabbit the skull was opened and the brain removed, the orbital plate of the frontal bone was carefully cut away external to the frontal nerve, and the lacrimal nerve sought for, found, divided, and its distal end stimulated by the induced current. A copious flow of tears immediately took place from the glands of that side, whilst those of the opposite side remained quiescent; and this recurred as often as the stimulus was applied, and ceased in the intervals of the passage of the current. The experiment often failed, the animals dying during the operation. He adopted a less serious mode of operating in the case of Dogs, in which animals the outer wall of the orbit is open, or at least only covered with soft parts. He here made a vertical cut just behind the posterior commissure of the lids, and from the

(a) "Ad. v. Anat.," 1 Lugd. Bat., 1723, page 28.

(b) "Handwörterbuch der Physiologie," Band ii., S. 598.



ends of this made two others passing backwards for two inches, so that the capsule of the orbit was exhibited. On dividing this carefully, parallel to the upper border of the rectus externus, the nerve could, with a little dissection, be made out. After division, stimulation of the distal stump of the nerve produced the same results.

In one case bleeding interfered with the discovery of the nerve. He therefore sought another, and found one at the lower border of the rectus. Stimulation of this produced apparent increase in the flow of tears. The animal was killed, and the nerve dissected out; it proved to be *nervus subcutaneus malæ*. Subsequent experiments, made with a view of directly determining the influence of this nerve, showed that it was capable of inducing a secretion of tears, though less abundant than when the lacrimal was itself stimulated.

In the course of Herzenstein's experiments it did not appear that hæmorrhage, or otherwise produced arrest of circulation through the gland, interfered with the result, and hence the conclusion may be drawn that the action of the nerves, as in the case of the salivary glands, is essentially on the secreting cells themselves. From these experiments, then, it appears that the gland may be excited to action by branches of both the first and second divisions of the fifth pair of nerves.

The only other nerve that appears to have a direct influence on the activity of the lacrimal gland is the sympathetic; and this is not easy to ascertain, for the sympathetic is often blended in the Dog with the vagus; but it appears that after section of the sympathetic, when it does happen to run separately, though there is increased flow of blood through the capillaries of the same side of the head, there is no noticeable increase in the secretion of tears. When, however, the upper cut extremity is stimulated, tears are secreted in larger quantity, but still not in quantity comparable with what is discharged when the lacrimal nerve is stimulated.

When both sympathetic and lacrimal nerves have been divided, an increased secretion of tears has been observed, which must be regarded as analogous to the paralytic secretion of the salivary glands. This statement is supported by the concurrent testimony of Herzenstein, Wolferz, and by Demtschenko, but Reich has not been able to satisfy himself of its correctness.

In regard to the action of the nervous system upon the lacrimal gland, it may be remarked that Hoppe-Seyler (though I know not whether upon his own authority or not) states that, on excitation of the trigeminus, transparent tears are secreted, whilst on stimulation of the sympathetic the lacrimal secretion is cloudy and alkaline.

Whatever doubts there may be on this point, there can be none that the glands can be stimulated to activity in a *reflex* manner by various stimuli acting through different channels; and it would appear that all stimuli act more energetically in young animals than in old. The shedding of tears from emotional causes, so common in the young, is rare and feeble in advanced age. The usual causes by which the glands are rendered active are undoubtedly of a reflex nature; and that which is usually in operation during the waking state, as Landois observes, is a constant stimulation of the anterior surface of the bulbus oculi, owing to the contact of cold air, incipient dryness caused by evaporation from the surface of the cornea, and the contact and irritation of minute and hardly perceptible particles of dust or of other material floating in the air. During sleep, these sources of irritation are obviated by the closure of the lids, and the discharge of tears diminishes. If, however, any foreign body, as a particle of coke from a furnace, or an insect, becomes embedded in or attached to the cornea, or lodged beneath the upper lid, secretion is stimulated, not only of the lacrimal, but of the mucous glands of the conjunctiva, even during sleep; and on waking, the lids are found to be firmly glued together by the dried or inspissated secretion. Certain gases and vapours, as BrCl and triethylboron,  $B(C_2H_5)_3$ , and mustard, provoke a discharge of tears. The flow of tears may be excited reflectorally by stimulating the branches of the fifth distributed to the Schneiderian membrane of the nose, a copious flow being readily produced by tickling the inner surface of the nostrils with a feather; and most persons must be aware that when the irritability of the nerve is heightened by a catarrh, the act of shaving will cause free discharge of tears.

Another channel of reflex irritation is through the optic nerve; and sudden exposure to a bright light, after long sojourn in darkness, causes an abundant flow of tears. This channel becomes hyperæsthetic in certain forms of disease, especially in those attacks of inflammation of the conjunctiva which were formerly called strumous, but which are now termed phlyctenular. In such cases the intolerance of light exhibited by the patient is often extreme; and if the child (for the patient is usually young) is drawn away from some dark corner where he lies with his head buried in his hands, or from his mother's lap, and the eyelids are forcibly separated, a very abundant flow of tears takes place, attended, apparently, by more or less pain. A remarkable experiment recently performed by MM. Vulpian and Journiac(c) shows that the stimulation of the tympanic cavity by means of a faradaic current, in Rabbits under the influence of curare, caused not only activity of the lacrimal glands, but also of the Harderian gland, for there was an increased secretion of tears, and simultaneously a milky fluid welled up from the inner angle of the eye. When examined with the microscope, the secretion appeared as a colourless fluid, containing a large number of fat-drops.

The excitation of any nerve, if carried to the point of producing pain, appears to be capable of causing a flow of tears.

An increased flow of blood through the cerebral vessels readily augments the secretion of tears. It is seen, for example, in loud and prolonged laughter, or in silent and suppressed laughter, both of which interfere with the respiratory acts. It is seen also in the congestion of the head consequent on coughing and sneezing.

There is yet one more method by which the secretion of tears may be stimulated—namely, by the subcutaneous injection of certain drugs, such, for example, as pilocarpine. This substance is known to have a powerful influence in augmenting the secretions of the sweat and other glands, and Reichel(d) has recently employed it with great advantage in his efforts to follow the histological changes that take place in the lacrimal gland of Dogs before and after active secretion.

Reichel's observations were made under the supervision of Heidenhain, at Breslau. He at first attempted to apply an electrical stimulus to the lacrimal nerve of one side, and, after thus exciting secretion, to compare the two glands. He found, however, that in the Dog the operation necessary to expose the lacrimal nerve was too severe, and too much damage was done to permit any trustworthy conclusions to be drawn. He therefore adopted a different plan. He first extirpated the gland on one side, and from this gland control preparations were made, after hardening, by section and by teasing out the parts with needles under the microscope.

He describes the structure of the lacrimal glands in terms similar to those I gave in my last lecture, and regards them as belonging to the group of acinous glands, the several acini being separated from each other by tolerably well-developed connective tissue, and filled with irregularly formed cells, which are for the most part provided with a process at their base. Every cell contains a distinct and well-defined nucleus. Reichel's sections were made with a microtome, were coloured with picrocarmine, and then rendered transparent with glycerine. It was then seen that in the inactive gland each cell was well defined and distinctly separated from the adjoining ones. Some were columnar, some conical, and they were only slightly granular. The nuclei of the cells in the inactive or quiescent gland were situated nearer to the base than to the apex, and coloured strongly with carmine. Their form was irregular, and they were either smooth, slightly toothed, or angular on the surface. The active or excited gland, on the other hand, presented a very different appearance, for when removed some time after the injection of the pilocarpine, the first aspect of the sections showed that they were very much darker. The protoplasm of the cells was strongly granular and clouded with albuminates. The cell boundaries were much less distinctly marked, and were only recognisable with care as fine lines; and from this circumstance, as well as in consequence of the more close approximation of the nuclei, the appearance of a multiplication of the nuclei was often presented. The nuclei had also changed their form,

(c) *Comptes-Rendus*, t. lxxxix., page 393; and Hofmann and Schwalbe, *Jahresbericht*, 1880.

(d) Schultze's *Archiv*, 1880, Band xvii., S. 12.



and, instead of being polygonal, were perfectly spherical. The changes in the lacrimal gland, therefore, which result from stimulation are closely analogous to those of the parotid gland.

(To be continued.)

REPORT OF THE DELEGATES  
OF THE  
ROYAL COLLEGE OF PHYSICIANS OF LONDON  
ON THE  
INTERCOLONIAL MEDICAL CONGRESS,

Held at Amsterdam on Sept. 6, 7, and 8, 1883.

By DYCE DUCKWORTH, M.D., F.R.C.P.; and  
JOSEPH EWART, M.D., F.R.C.P.

THE Congress was opened on September 6 by Prof. Stokvis, the President, who delivered an able address. In the afternoon the following papers were read:—(1) "Hygiène des Professions, Cultures et Métiers insalubres dans les Colonies," du Dr. J. J. Da Silva Amado, Professeur d'Hygiène à l'École Médicale de Lisbonne; (2) "Sur la Colonisation Européenne dans les Pays chauds," du Dr. G. Van Overbeek de Meijer, Professeur à l'Université d'Utrecht; (3) "Acclimatement et Acclimation," du Dr. H. Rey, Médecin Principal de la Marine Française à Toulon. In the discussion which followed, Sir Joseph Fayrer expressed his concurrence with the authors of the papers, as regards the impossibility of colonising the plains of tropical countries by Europeans. Surgeon-Major Lewis, of Netley, expressed similar views, and remarked that Europeans degenerate in a tropical climate, even when advantage is largely taken of the hills. During something like twenty years the orphan children of soldiers in India have been most carefully brought up in special asylums at elevations varying from 3000 to 6000 feet; and yet the mortality, even under these favourable circumstances, has been just double what it is in England amongst children of the same ages.

On the 7th, in the forenoon, papers were read in the Sections of Climatology, Medical Geography, General Pathology, and Hygiene—(1) "De la Phthisie dans les Colonies et Climats tropicaux," du Dr. B. Carsten; (2) "Sur le mode de Drainage du Sol par l'Eucalyptus," du Dr. Bonnafont, Paris; (3) "Sur le Transport des Malades et des Blessés par les Voies ferrées dans les Climats tropicaux," du Dr. M. W. C. Gori, Professeur agrégé à l'Université d'Amsterdam; (4) "Sur la Contagion de la Lèpre," du Dr. Chs. Landré, à Bruxelles; (5) "Sur le rôle des Microbes dans la formation des Organismes vivants," du Dr. Van der Heyde, Chef de l'Hôpital et de l'École Médicale à Kobé (Japan).

In the Section of Pathology and Special Therapeutics papers were read—(1) *a.* "On the Management of Malarial Poisoning and Prolonged Exposure to Tropical Heat"; *b.* "Congestion of the Liver"; *c.* "Abscess of the Liver"; *d.* "Malarious or Tropical Anæmia"; *e.* "Pernicious Anæmia"; *f.* "The Consequences of *Coup de Soleil* and Thermic Fever in Persons who have returned to Europe after a protracted residence in India or other Hot Climates," by Sir Joseph Fayrer, K.C.S.I., and Dr. Joseph Ewart; (2) "On the Treatment of Chronic Dysentery and Diarrhœa in those who have returned to Europe after a sojourn in Hot Countries," by Dr. A. Le Roy de Méricourt, of Paris, and Dr. A. Corre, of Brest; (3) "The Treatment of Malarious Fevers by Subcutaneous Injection of Quinine," by Brigade-Surgeon Scriven.

In the discussion, Prof. Stokvis stated that he preferred a solution of quinine prepared with hydrobromic acid, and Dr. Dyce Duckworth said that he had recommended such a preparation for use to the medical officers of an Indian railway with which he is officially connected. Bismuth often failed to yield good results in chronic diarrhœa because given in too small doses. He recommended doses of thirty grains. Prof. Stokvis believed that bismuth exerted but a topical soothing action, and, in view of its costliness, thought that some cheaper and equally efficient substitute might be found. With regard to enlargement of the liver from malaria and congestion, Dr. Duckworth had obtained excellent results from the administration of large doses of

muriate of ammonia. Sir Joseph Fayrer recommended, for the treatment of chronic diarrhœa, a pure milk diet, with or without lime-water, and repeated, as to quantity and strength, according to the digestive and assimilating power of the patient.

In the afternoon, papers were read in the General Section on the subject of Quarantine—(1) by Prof. de Chaumont; (2) Dr. F. J. Van Leent, Chief Medical Officer of Netherlands Marine; (3) Mons. M. J. A. Kruij, of Djeddah.

On these papers a very lively and somewhat excited discussion ensued. The authors of the two last papers, Prof. Amado, of Lisbon, and M. de Méricourt, of Paris, spoke warmly in favour of quarantine as a protective measure; whilst M. Boissevain characterised the system as a "tyranny tempered by backsheesh." The author of the first paper, Surgeon-Major Timothy Lewis, Dr. Joseph Ewart, and, on the following day, Sir Joseph Fayrer, were equally emphatic in their condemnation of it. The collective experience of the three last-named speakers of cholera in India, both in its endemic and epidemic forms, went to show that the malady was not contagious, and that, therefore, quarantine was not only useless, but vexatious, cruel, and injurious.

Surgeon-Major T. R. Lewis, Assistant Professor of Pathology, Army Medical School, Netley, spoke as follows:—It is now just fifteen years since the British and Indian Governments honoured Dr. Douglas Cunningham and myself by sending us to India for the purpose of inquiring into certain views regarding the causation of cholera, which were then widely entertained. The results of these investigations were published from time to time in the Annual Reports of the Sanitary Commissioner with the Government of India. Whilst listening to the remarks which have been made during this discussion, I have been struck with the unqualified character of some of the assertions regarding the contagious character of cholera. It has been assumed that it is readily communicable from one man to another, and that the arrival of a cholera-affected person in any district, or of a person who has recently been in contact with the disease, is sufficient to give rise to a widespread outbreak. I do not for a moment find fault with these speakers for entertaining such an opinion—they were but giving expression to a very generally accepted doctrine; but I beg leave to be permitted to record my dissent from any such view. My former colleague, Dr. Cunningham, and myself have had considerable experience in investigating localised outbreaks of the disease, but in no single instance have we been able to satisfy ourselves that it was spread from man to man. Until very recently all the most important data regarding cholera which were collected in British India passed through my hands; and I recollect that, every now and then, instances were recorded which, at first sight, seemed to support such a conclusion. The evidence in these instances was carefully sifted, and I have often endeavoured to find the missing links which were required to complete the chain, but always in vain. I am well aware that some of the instances which have been recorded in Europe are exceedingly puzzling. These instances are few, and are known to you all; but even of these it can scarcely be said that they have stood the critical analysis of the renowned Professor of Hygiene at Munich, Prof. Max von Pettenkofer. Before accepting, therefore, even these, so to speak, classical illustrations, I would urge upon you to study von Pettenkofer's most able papers. As already remarked, instances of the supposed communicability of the disease have been referred to in this debate, but no notice has been taken of persons or places which have escaped. When a question has to be decided on evidence alone, both sides have to be considered. Time will not admit of my entering at any length into this phase of the subject; but I should like to be allowed to refer to one or two instances of exemption from attack under circumstances exceptionally favourable so far as contagium is concerned. There are in Calcutta two very large medical institutions—the College Hospital and the General Hospital; and for many years it was the custom to treat the numerous cholera patients in each of these hospitals in the same building as the other patients. Sir Joseph Fayrer and Dr. Ewart, who are now present, will bear me out when I say that, during all the years in which they were officially connected with those institutions, no evil results could be referred to this custom. As regards the General Hospital, I may mention that it consists of three buildings, and that, although until recently it was the custom to admit all cholera cases into the central block,



there was not the slightest suspicion that any evil resulted to the other patients in it. It so happened that all three blocks had for many years been remarkably exempt from outbreaks of cholera. A few years ago, however, several cases occurred in two out of the three buildings, but, strange to say, it was the central block which escaped. Again, as an instance of places which have escaped outbreaks of the disease, notwithstanding frequent and early intercourse with affected localities, the history of the convict settlement at the Andaman Islands, in the Bay of Bengal, may be cited. This settlement is about three or four days by steamer from Calcutta, a city from which cholera is never absent; and during the last twenty-five years the convicts for transportation have been collected in Calcutta from all parts of India, and, at intervals of a few weeks, taken on to the Andamans. Nearly all the food of the convicts, numbering about ten thousand, is likewise taken from Calcutta: consequently there must have been very free intercourse between the two places; yet, notwithstanding all this, there has not been a single outbreak of cholera in the settlement. Had the Government adopted a strict system of quarantine during this long period, the instance might, with some show of reason, have been cited as an illustration of the efficacy of quarantine in the protection of a colony; but the history having been what I have narrated, I can hardly imagine that the most ardent advocate of the measure will find fault with the authorities for not having adopted it. Indeed, I can hardly imagine—seeing that for the last quarter of a century this great, so to speak, unplanned experiment has proved almost beyond dispute that, at least for all practical purposes, cholera may be looked upon as a non-transportable disease—I can hardly imagine that, as regards the future, they would advocate that these convicts (many of them in fetters) should be kept in a crowded ship outside the harbour in the fierce heat of a tropical sun, and this in order that they should undergo the “regulation” number of days before landing, because they have come from an affected place. As regards this question of quarantine and cholera, the experience which has been gained in India is strongly corroborative of the conclusion which Prof. de Chaumont has arrived at, and which he has so ably defended in the important paper just read at this meeting. I warmly second his recommendation, that this Congress should not lend its support to the introduction of any restrictions which would so seriously interfere with personal liberty, and be liable to be so carried into effect as to inflict the greatest hardship, and even cruelty, on wholly innocent persons. It has frequently been declared that the British Government objects to quarantine solely on mercenary grounds. I venture to think, however, that I have shown that it has at least some other reason for the attitude which it has assumed in this matter. The fact that cholera quarantine is not only discountenanced, but actually forbidden in British India, shows that the Government of that country has no faith in its usefulness; and no one will accuse it of being unmindful of the lives of its own people, whatever may be said of its avarice. The practice in India is not to establish quarantine cordons, but just the reverse. Immediately on the appearance of cholera the troops are dispersed, and encamped on carefully selected sites away from the locality where the disease prevails; and, if necessary, these camps are shifted again and again until the disease disappears. This practice has been followed by the most marked success, and it has never been found that these camping grounds acted as foci for the dissemination of the disease. The history of the recent outbreak in Egypt coincides in a remarkable manner with what is ordinarily observed in India, though it was at first very generally and very dogmatically asserted that the disease had been brought by ships from that country. But what, so far as is known, was the history of this outbreak? Instead of breaking out at Suez, the place in Egypt most generally frequented by Europeans from India, or along the course of the Suez Canal, where our troops, both European and native, had been congregated, it broke out at Damietta, a port at which neither the Peninsular and Oriental nor any other of the ordinary steamers from India ever call. If the disease had been carried into Egypt, why was it that it did not start at Suez, Ismailia, or Port Said, seeing that, as was demonstrated by after events, there was nothing in any of these places inimical to the occurrence of the disease among their inhabitants? Bearing all these great facts in mind, I would strongly urge

upon the members of this Congress the absolute necessity of studying the question afresh, each one for himself, and not remaining content to accept any doctrine as regards the cause of cholera merely because it may be advocated by this authority or by that. I would not for a moment have you think that I undervalue the labours of the acknowledged leaders of thought in this matter, and I am quite sure that were the great sanitary authority of modern times, my revered teacher, the late Dr. Parkes, amongst us, he, notwithstanding his well-known extreme consideration for his co-workers and his predilection for the opinions which are at present the most popular, even he would be amongst the warmest advocates of renewed independent research and of further observation in this matter. I would not for a moment suggest that the search for a poison or germ of cholera should cease. On the contrary, I would have it carried to its utmost limit; but, so far as my own observations have gone, I feel bound, on an occasion like this, to state that I have not been able to collect any series of facts in support of the existence of a transportable cholera-poison of any kind, nor have I been able to satisfy myself that anyone else has done so; consequently it is, in my opinion, wholly illogical to frame stringent quarantine regulations for the purpose of keeping out an entity which as yet has not been proved to exist. What the essential cause of cholera may be, does not fall within the scope of the present discussion. Were it so, I venture to predict that the sum and substance of the remarks of every speaker who had honestly studied the subject for himself would be: “I do not know.”

Dr. Joseph Ewart said that, a few months after his arrival in Bengal, in 1854, he was called upon to deal with an outbreak of cholera at Barrackpore, and later on, in the same year, at Dinapore. Relying on the teaching of the schools and the standard works of the day, he was imbued with the view that it was highly contagious. He was, however, soon undeceived. The hospital attendants and the fellow-countrymen of the patients laboured under no such delusion. They nursed and waited upon the sick with perfect impunity. He next saw the disease at Ajmeer, Rajputana, in 1856. This outbreak was an offshoot of a wide-spread and virulent epidemic which affected most of the important towns of the North-Western Provinces. Being still somewhat under the dominion of the precepts inculcated in the London schools, he recommended the adoption of quarantine. The advice was promptly acted upon; but it soon became apparent that the measure so intensified the scourge that cases were admitted into hospital from all parts of the prison, with the exception of that set apart for female convicts. On the realisation of this state of affairs, no time was lost in having the prisoners removed to a series of well-ventilated temporary huts, situated two or three miles to windward of the gaol, on a ridge admitting of perfect drainage, and possessing every facility for the maintenance of all needful hygienic and sanitary precautions. The result was most satisfactory. No fresh cases occurred in camp, and, as the deserted cells were cleansed and lime-washed, the epidemic did not extend to the female department. Here, again, there was no evidence to show that the disease was propagated by contagion or infection. Further experience of cholera was gained at the Medical College and General Hospitals at Calcutta, between 1863 and 1876, where it was constantly to be observed both in its mildest and in its severest forms. At these institutions, where a great number of students, a full professional staff of physicians and their assistants, nurses, and other attendants, were almost daily brought into direct association with cholera, it was never found to prevail among them disproportionately, or more frequently than among a corresponding group of the general population. A noteworthy fact was also observed, viz., that a similar immunity was enjoyed by the sweepers whose duty it was to remove the discharges, and by those persons who washed the bed-linen and personal clothing of the patients. Such facts as these have convinced most experienced physicians practising in India that the malady is not infectious, contagious, or catching from person to person. Quarantine is therefore unnecessary, and may prove very disastrous to the individuals included within the cordon, as it did in the case of the Ajmeer Gaol already cited. Those who advocate quarantine would do well to note the extreme difficulty experienced in completely isolating even a single person prostrated by disease. Indeed, when the matter is carefully weighed in all its bearings, or threshed out, it will be found



to be all but, if not altogether, impossible. If this be so, how much more impracticable must it be to quarantine, with anything approaching perfection, ships belonging to the navy or to the mercantile marine, or a community on land? It has been stated that the practice of removing troops in India from an affected to an unaffected locality is only a modification of quarantine. But a little consideration will suffice to show that such a notion is quite erroneous. This method of dealing with cholera is simply the substitution of a non-epidemic for an epidemic area—of a healthy for an unhealthy locality—where the principles of hygienic and sanitary science can be promoted and developed to the utmost extent, with the happy result of almost invariably stopping the dissemination of the disease. What is done is to place the sick and as many of the unaffected as possible in the most favourable condition for recovery or escape from attack, and to carry out all measures necessary for the maintenance of the strictest cleanliness in all things. Quarantine, which at the best is only a poor apology for bad sanitation, is in no way attempted, because experience in India, as recently in Egypt, has proved it to be as useless and unnecessary as it is injurious, cruel, and impossible. Epidemic cholera spreads somewhat like dengue or influenza. Dengue is endemic in Calcutta, but occasionally it prevails as an epidemic. When this happens, as in 1872, it invades in a few weeks almost three-fourths of the population. What the factor may be, the absence of which at one time tends to minimise the disease into an insignificant endemic, and the presence of which, at another period, exaggerates it into a widespread and disabling epidemic, we, it must be candidly confessed, do not know. Neither do we know anything very definite about the influence which, at certain seasons, may with fatal effect lay prostrate with influenza many members of the community. So it is with cholera. We may infer from its behaviour that its diffusion is favoured by some powerful factor or influence, of the nature of which we are in complete ignorance, often operating, at particular seasons, with great and mortal rapidity, upon persons inhabiting certain areas of country. It would therefore be about as reasonable to attempt to quarantine cholera, dengue, or influenza, as it would be to quarantine the east wind. As regards the uselessness of quarantine, Dr. Ewart was in full accord with the views enunciated by Prof. de Chaumont and Dr. Lewis. He had, when at the head of the Calcutta General Hospital, supplied Drs. Lewis and Cunningham with the material for their inquiry into the causes of cholera. He had watched the progress of the investigation with intense interest. These gentlemen were in direct contact with the cholera discharges in their workroom—often in their private apartments—in all stages of metamorphosis and decay; and that they did all this with complete impunity is, as far as it goes—and it must be admitted to go a long way,—in favour of the non-contagiousness of the malady. He had restricted his remarks to a plain statement of facts derived from long acquaintance with endemic and epidemic cholera. His experience, he had good reason to believe, is that of most physicians in India, who have seen the malady and formed an independent judgment on the question. It has been confirmed by what has happened in Egypt. He would, in conclusion, beg the meeting, constituted as it was of many distinguished men from different parts of Europe, to pause before it gave its sanction to quarantine, or opposed the enlightened views of Prof. de Chaumont, who, in his able, learned, and thoughtful paper, has produced abundant evidence to convince the most sceptical that this is certainly not the way to prevent or mitigate the diffusion of cholera with the desired amount of success.

Sir Joseph Fayrer said, in continuing the discussion after the reading of Mons. E. M. Van Lier's paper, "Sur la Genèse du Choléra," that he spoke with much hesitation on this subject, but he felt that it would not be right of any medical officer who had some twenty-four years' experience in dealing with cholera to withhold communicating it on an occasion like the present. Notwithstanding this long experience, he felt that he was totally and absolutely ignorant of the cause of the disease. He fully endorsed all that had been said yesterday by Drs. Lewis and Ewart in connexion with this subject. He had himself seen hundreds of cases of sporadic and of epidemic cholera, but had seen nothing to make him think that there was anything whatever of a contagious character in connexion with the disease. He was well aware that many of his countrymen thought otherwise, but still

he felt bound to make his own confession of faith. A great deal had been heard of a cholera germ or of a cholera poison; but neither had as yet been discovered, though he did not for a moment deny that it may exist. Thus far it is merely a matter of evidence. The question of quarantine is one of great importance, and in Europe it practically resolves itself into framing regulations for dealing with cholera. As regards the hygienic measures which should be adopted in dealing with the drinking-water and so forth, he would advocate their adoption as strongly as the strictest believer in germs or in special water-poison could do, but he did not do this because he believed that a specific cholera germ exists, but because he felt sure that, during a season when cholera influences were abroad, any dietetic irregularity, such as partaking of unripe fruit, or the indiscreet administration of a dose of sulphate of magnesia, might suffice to determine the active development of the disease. As regards the theory propounded by E. M. Van Lier, that cholera was due to some subterranean volcanic disturbances, he would point out that, as regards the parts of Bengal where the disease was endemic, no evidence of such influences had ever been recorded, and that consequently he could not accept the view that had been put forth. He had, however, embraced the opportunity which this paper had furnished of enabling him to continue yesterday's debate on quarantine, of which, owing to the lateness of the hour, he could not then avail himself.

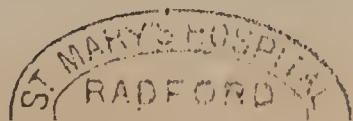
On the 8th, in the Section of Climatology, etc. Prof. Norman Chevers', C.I.E., learned paper was read, *in absentia*, by Prof. Stokvis. It dealt with the modifications of infectious and other diseases in tropical climates; embracing a consideration of scarlatina, typhus, enteric fever, and relapsing fever, filaria sanguinis hominis, erysipelas, acute rheumatism, gout, cancer, struma, rickets, scorbutus, bronchocoele, phthisis pulmonalis, urinary calculus, lathyrism, leprosy, Delhi boil, Aden ulcer, lichen tropicus, furunculus of the rainy season, Malabar and Burmah itch. Communications to the Section were made—(1) "Pourquoi les Fièvres dites pernicieuses offrent plus de danger dans un Climat tropical que dans un Climat modéré," du Dr. Bonnafont, Paris; (2) "Sur modifications apportées à la Syphilis par les Pays chauds," du Dr. Catrin, d'Alger; (3) "Sur l'Influence physiologique et thérapeutique du Climat," du Dr. Jac. Baart de la Faijle, à Leeuwarden; and (4) "Sur la Genèse du Choléra," du Dr. E. M. Van Lier. In the Section on Pathology, etc., papers were read—(1) "Sur le Béri-béri," du Prof. B. Scheube, à Leipsic; (2) "Sur Diabète sucré," du Dr. F. A. Eklund, à Stockholm; (3) "Sur quelques Médicaments indigènes des Pays tropicaux," du Dr. E. Waring, à Londres; (4) "Sur l'Élimination du Mercure, introduit dans le corps par la peau," du Dr. Schuster, à Aix-la-Chapelle.

In the afternoon the proceedings were concluded by the reading of the following papers:—(1) "Sur Éducation spéciale des Médecins des Colonies," du Dr. Becking; (2) another on the same subject by Dr. Dyce Duckworth, London; and one by Dr. Catrin, of Algiers.

In drawing up this imperfect report we have enumerated all the papers in the order in which they were presented and read, for the purpose of showing the nature and kind of work done. We have only referred briefly to some of the discussions which have ensued. The papers and the discussions will, doubtless, be published in full in the forthcoming Transactions of the Congress—the first of its kind that has been held, and the forerunner of others, let us hope, by the medical profession of other colonial powers.

Our mission was warmly welcomed on account of the distinguished body who had deputed us to attend the Congress, and also because no other British college or scientific institution had seized the opportunity of being similarly represented. This fact was frequently alluded to at the meetings, and in the complimentary speeches and toasts at the banquets and other social gatherings, and conspicuously at the banquet given to the leading members by Sir Joseph Fayrer, Drs. Lewis, Cutts, Jones, Scriven, and ourselves.

On taking leave of the President and his colleagues, we most cordially thanked them, on behalf of the President and Fellows of this College, for the attention and assistance which they had rendered us, and assured them that we should not fail to notice how highly and sincerely the action and sympathy of the Royal College of Physicians had been appreciated by the President, the Committee of Organisation of the Congress, and the civic authorities of Amsterdam.





## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### ST. BARTHOLOMEW'S HOSPITAL.

#### CASES ILLUSTRATING THE TREATMENT OF LUMBAR ABSCESS BY FREE INCISION.

(Under the care of Mr. THOMAS SMITH.)

*Case 1.—Lumbar Abscess—Partial Evacuations—Free Opening up of Sinuses—Healing (from below) by Granulation.*

[For the notes of this case we are indebted to the courtesy of Mr. BERRY, House-Surgeon.]

FREDERICK B., aged nineteen, admitted December 16, 1882.

*Previous History.*—He had enjoyed good health previous to the present illness, which began about three weeks ago, with rigor and headache, and shooting pain in the left lumbar region, running into the left leg. He has had to keep his bed. Six years ago he had a fall downstairs on to his back. He now complains of pain and weakness in the back, and of loss of power over his left leg.

*On Admission,* he was found to have what appeared to be a lumbar abscess. An incision was made into it, but no pus was found. Antiseptic precautions were taken.

December 20.—More pain in both hips, with numbness in left leg.

21st.—Complains only of pain in the left leg; sleeps rather badly. Urine charged with lithates; contains no albumen; micturition about every three hours. Tendon reflexes all normal.

January 4, 1883.—Condition has varied slightly since last note. To-day there is more pain in the back and left leg; it prevents his sleeping. His temperature reaches 103° nearly every night.

18th.—Mr. Smith let out about one ounce of pus from the left lumbar region with an aspirator.

23rd.—The opening was enlarged, and several ounces of pus were let out.

30th.—He now sleeps fairly well. There is little discharge.

February 8.—With a view to a freer discharge, drainage-tubes were inserted into two openings; they are to be syringed daily. A sudden rise of temperature.

9th.—Had to have sleeping-draught last evening. The temperature this morning is 103° Fahr.

27th.—A fresh collection of matter, situated above and to the right side of the former openings, was opened to-day, and about two ounces of very foul pus were let out.

28th.—Feeling much easier.

March 14.—Still some discharge. He has griping pains in the abdomen. Temperature 100° Fahr. Takes his food and sleeps well.

30th.—Since admission the patient has been gradually getting worse. A discharge of several ounces of pus takes place every day from four or five sinuses in the left loin. Pressure on the loin causes a quantity of matter to well up from the deeper parts. He appears to have a large, deep-seated lumbar abscess, the matter from which can only imperfectly make its way to the surface. There are no distinct signs of spinal disease; there is no tenderness along the spine. There is some paralysis and numbness of the left leg and foot. Chest normal, urine normal. His temperature is constantly above normal, and frequently rises as high as 103° or 104° Fahr. His illness has now lasted nearly five months.

April 3.—Under ether, a transverse incision about four inches long was made just above the iliac crest, thus laying open two sinuses. Another sinus was then found to extend deeply inwards beneath the erector spinæ muscle; this was laid freely open, so that two fingers could be passed into the large abscess-cavity which was found to be present. The sides of the lumbar vertebrae could be plainly felt, but no bare bone was detected. Another incision into the abscess was made on the inner side of the erector spinæ, and the wounds were plugged from the bottom with strips of oiled lint.

10th.—Only slight constitutional disturbance followed the last operation. The dressings have been changed every day, care being taken to put the lint quite to the bottom of the wound on each occasion. To-day a large drainage-tube,

passing across under the erector spinæ, has been substituted for the oiled lint. There is a profuse discharge of pus from the wound.

May 16.—The patient feels much better. There is less discharge from the wound. The temperature has been much lower since the last operation; it is now very little above normal.

June 18.—Continues to improve. Sleeps well; takes his food well; has no pain. Less discharge from the wound; the drainage-tube is gradually cutting its way towards the surface through the erector spinæ. The left leg and foot are still partially paralysed.

August 2.—A small fresh collection of pus having formed on the outer side of the original abscess, an opening was made into it, and a small tube inserted.

September 20.—Is able to get about with the help of crutches. Wound nearly healed; no drainage-tube in it; discharge almost ceased.

#### *Case 2.—Disease of the Transverse Processes of the Vertebrae—Deep Abscesses—Free Opening—Recovery.*

[For these notes we are indebted to Mr. TRENDER, House-Surgeon.]

Robert G., aged twenty-three, a miner by occupation, was admitted June 5, 1883.

*Previous History.*—Patient was quite well until fourteen months ago, when he fell backwards against a tub, which struck him on the loins. He continued with his work for a month as usual; then a lump appeared on the side of the lumbar spine. At first it was of the size of a walnut, but gradually enlarged until of the size of a saucer. He went to the Leicester Infirmary after about two months, during which the swelling appeared stationary; the swelling was then incised, and pus let out. He remained in hospital for about two weeks, and then continued as an out-patient for three months, after which he was readmitted. There were now several sinuses, all discharging; no dead bone could be detected. He continued in this condition for some weeks longer, and was then admitted into St. Bartholomew's Hospital.

*Present Condition.*—He has two sinuses, one above the other, to the right of the spine, just above the crest of the ilium. A probe introduced into them goes in for about two inches, the upper sinus having rather a downward, the lower an upward, direction. No dead bone can be felt. The man can run, walk, stoop, or turn in any direction as well as ever; but if he attempts to lift a heavy weight he seems to have no power. Urine normal.

*Treatment.*—June 12.—Mr. Smith opened up the sinuses in all directions; one was found to communicate with an abscess-cavity immediately over the transverse processes of one or two of the middle lumbar vertebrae, and between them and the fibres of the erector spinæ muscle. Drainage-tubes were then inserted. In the evening the temperature rose from 99.6° to 101.8°.

20th.—For some days past the patient has complained of pain about his great trochanter. There is a rise of temperature.

August 20.—Fresh evidence of burrowing of pus. The patient was again anaesthetised, and some sinuses opened up.

October 20.—The wounds have gradually closed. There has been less and less discharge up till the present time. Now there is only a superficial wound, which is fast cicatrising. The man feels well; he is gaining flesh in spite of a troublesome cough and some expectoration. His temperature is about normal. He is up and about the ward.

*Remarks.*—In the first of these cases the disease seemed to be making steady progress towards a fatal termination, and it was at Mr. Berry's suggestion that the abscess was treated by freely laying open all sinuses and exposing all suppurating cavities within reach. The necessary incisions were numerous, very extensive, and very deep, and the appearance of the lumbar region the day after the operation was such as to cause some anxiety on account of the very large wound-surface. The treatment, however, was followed by no serious disturbance, and before long there was a very appreciable diminution in the amount of discharge, and a corresponding improvement in the patient's general health, which has been steady and progressive. In the second case, it was also necessary to make very extensive and deep incisions. In this patient the recovery was more rapid, and unattended with any serious symptoms. In neither case has



The rod-like bacterium found by Koch in the sputa of phthisical subjects (*Bacillus*—or better, *Bacterium tuberculosis*), and in the diseased tissues, and since observed by every tiro in our hospitals, has not yet been shown to be the invariable accompaniment of phthisis. It is not yet certain whether such bacilli also occur in unhealthy but non-phthisical subjects. The cultivation of this organism outside the living body has been effected, but upon solid media, not in fluids; and accordingly it is less certain that the organisms when subsequently used for inoculation have been entirely free from

It is not surprising that, in its eagerness to apply all new knowledge to the great end of staying disease, the medical profession should often seize upon new discoveries, and make them the basis of plausible theories tending to curative measures long, before actual scientific knowledge can justify any such proceeding. The facts really ascertained with regard to the part played by *some* bacteria as causes of disease are continually, at the present day, forgotten, and their positive nature misapprehended, owing to the readiness with which the mere hopes and anticipations arising from the discovery of other bacteria in diseased states of the human body have been misinterpreted by over-zealous writers, and discussed as though they too were demonstrable facts instead of sanguine hypotheses. We use the word bacteria to include all forms known, as bacterium, micrococcus, bacillus, spirillum, or vibrio, since it is demonstrated that in a non-parasitic kind (*Bacterium rubescens*) all these forms may be assumed by the growth in turn, according to the conditions of its surroundings, just as the mould *Mucor racemosus* may grow as a filiform mycelium or as a pullulating torula, according as it is exposed to atmospheric oxygen, or is deprived of access to that oxygen and provided with saccharine solution. The parasitic (pathogenic) bacteria appear to have acquired a greater fixity of form than those which live in non-organised media, so that parasitic micrococci are found, when cultivated in various ways, always to reproduce themselves as micrococci; just as the beer yeast, which has for



particles of the diseased body from which they were taken, than would be the case had they been cultivated in fluids. Inoculation has been carried out with the cultivated bacilli upon animals; but, inasmuch as few experiments are as yet recorded of this kind, it is not satisfactorily proved that the disease produced by the inoculation is the same thing as the disease (phthisis) supposed to be produced by this organism in men. Probably, here, nothing short of the inoculation of criminals, or of some investigator sufficiently devoted to put his own life to the hazard, would furnish the desired proof as to the capacity of this bacillus to set up true phthisis, and yet further resolve the question whether the disease follows necessarily in all cases as a result of the inoculation, or whether a particular receptivity is necessary on the part of the "inoculee." A rod-like bacterium has been detected constantly in the morbid epidermal tissues of lepers (by Hansen), but no inoculation-experiments exist to render it even probable that it has a causal relation to leprosy. A bacterium is recorded by Klebs and Crudeli as occurring in malaria; but as yet it has not been isolated, and has not, after complete separation from other materials, been introduced into the blood of healthy animals. The minute spherical bacteria (micrococci) found in vaccine-lymph (Cohn), and in the tissues of persons dying of diphtheria (Oertel), have at present no further claim to be considered as causes of disease than is afforded by their constant presence in vaccinia and diphtheria. They have not been isolated, cultivated, and tested by inoculation when thus purified. Recently, however, both in glanders (Koch) and in erysipelas (Fehleisen) a bacterium has been detected, and has been cultivated on media external to the living body, and in each case has on inoculation produced the specific disease associated with it. In both these cases, however, the cultivation and inoculation have not as yet been sufficiently often repeated to warrant us in accepting the activity of these organisms as proved with the same confidence which we are justified in feeling in relation to the specific activity of the *Bacterium anthracis* in splenic fever. Lastly, we have the rod-like bacterium, or bacillus, discovered by Koch in the epithelium of the intestine of cholera subjects. Owing to the fact that cholera cannot be induced in animals, Koch was unable to test the specific properties of this bacillus. Probably, here again, the only satisfactory method will be to inoculate a condemned criminal. It was in this way that, forty years ago, the life-history of *Tania solium* was definitely established. Until such inoculation-experiments are performed, we have no justification, as Koch is the first to point out, for regarding it as more than a possibility that the bacillus discovered by him is the cause of the morbid condition known as cholera.

In regard to all these untested cases of the presence of bacteria, it must distinctly be remembered that there is solid ground for the conclusion that bacteria may and do occur in living animal bodies (not perhaps in a thoroughly healthy condition, except in such open cavities as the alimentary canal and bladder) without producing deadly mischief, and rather as the accompaniments of an unhealthy state than as causes of it. Also, the judicious critic will bear in mind that though bacteria may furnish the explanation of a certain number of zymotic diseases, we are not driven to seek in them an explanation of all. There are other analogies than that of parasitic plants which may very possibly ultimately furnish us with the explanation of some such diseases. The poison of snake-bite, the infection of surrounding tissues with the properties of a grafted tissue, whether in plants or in animals (skin), furnish us with evidence that particles forming the proper substance of one organism can modify the tissues of another organism to which

they may be transferred, so as to produce profound and even deadly disturbance. The "affection" in this class of cases, like that set up by a ferment-organism, is theoretically explained as a propagation not of material particles simply, but of molecular vibrations. Such possibilities being borne in mind, we must in each separate case wait for full demonstration before accepting an associated bacterium as the cause of a disease; and this though we accept the demonstration of the causal connexion in a few well-studied cases of a specific bacterium with a specific disease.

One word may be here said, in conclusion, as to the supposed permanency or fixity of the pathogenic property of bacteria known to be the cause of disease. Hans Buchner, working under the auspices of one of the ablest and most philosophic biologists of Germany, von Nägeli, has adduced facts which demonstrate, so far as the work of one man can, that the *Bacterium anthracis* of splenic fever is the same organism as the *Bacterium subtilis* which flourishes in vegetable putrefactions. Buchner has, by a series of cultivations in which the conditions of pabulum- and oxygen-supply and temperature were gradually modified, converted the *B. anthracis* into the harmless *B. subtilis*, and has also effected the reverse process. Koch, without repeating precisely Buchner's experiments, refuses to admit his conclusion, chiefly on theoretical grounds. It is much to be desired that Buchner's experiments should be minutely and accurately repeated by other observers.

Theoretically, Buchner's position (which is that of von Nägeli) has an immense amount in its favour. In these days of Darwinism it does not need any preface to gain acceptance for the proposition that all parasitic organisms are necessarily derived from closely allied non-parasitic forefathers. The adaptation to a parasitic life must in all cases have been a gradual one, and, as there can be no doubt that parasitic pathogenic bacteria have been at some time or other derived from non-parasitic harmless bacteria, it would not be surprising if we should find in these simple organisms, so closely allied to the highly adaptable moulds (mucor, yeast, etc.), some which have both a free and a parasitic phase of life, according to the series of conditions into which they may be brought. Not only this; but it seems almost necessary to suppose that pathogenic bacteria (assuming that others exist besides that of splenic fever and of fowls' cholera) have an intermediate phase of existence external to their hosts. It cannot be shown, for instance, in the case of *Bacterium anthracis*, that the bacteria are passed directly from host to host; apparently they exist widely spread on the surface of the earth. In this widely spread non-parasitic condition it is probable that they are harmless (as *Bacterium subtilis*), and that only here and there, from time to time, when definite conditions recur (such, for instance, as the admixture of animal fluids, blood, etc., with the more usual constituents of the soil), do they gradually, in those particular spots, undergo modification and become adapted to take the last step, and enter on a parasitic and disease-producing phase of activity. This speculation, when applied to the case of other diseases in which bacteria are suspected, acquires a very striking significance. It offers an explanation, which we do not find in the theory of fixity of specific physiological activities of bacteria, of (1) the importance of organic refuse in "breeding" disease; (2) of the apparently spontaneous outbreak of zymotic disease (really the acquirement of parasitic adaptation by species of bacteria present generally in a harmless state); (3) of the paradox that, according to the "fixity" theory, millions of these pathogenic bacteria must everywhere be diffused in a state ready for active infection, and yet men and animals are not habitually attacked by them, but only at intervals



of time and place, so as to cause what are known as "epidemics." Of the three elements in infection—viz., the germ, the recipient, and the intermediary vehicle—the last acquires its true significance and the explanation of its importance by the light of the Nägeli-Buchner exposition of the etiology of splenic fever. It must not be supposed that we intend in the above remarks to suggest that one and the same species of harmless bacterium can assume a number of various pathogenic phases according to circumstances. That would be carrying hypothesis beyond the limitations afforded by known facts. The hypothesis is simply, that as in the case of *B. anthracis-subtile*, so other species of pathogenic bacteria may have a free-living harmless corresponding phase.

### MEDICINE AND MICRO-BIOLOGY.

THE recent description by Dr. Koch of a new form of bacillus occurring in the intestines of cholera patients calls attention once again to the part played by germs in the production of disease. The actual discovery of so-called "specific" organisms in some of those maladies where their presence was suspected and sought for—the visible manifestation, as it were, of the previously hypothetical seeds of infectious disease—has naturally weighed much with the medical mind, and it is not, perhaps, to be wondered at that increasing light on the subject seems at first to dazzle as much as illuminate. But above all things it is necessary that the doctor who would be guided by the best scientific knowledge in his practice should pause and consider well before either ignoring or fully adopting the inferences drawn by many who are making micro-organisms their study.

The chief facts, among many others, regarding the germ-theory of disease that seem to have impressed the profession at large, which receives at second hand the accounts of the microscopical researches and the "cultivation-" and inoculation-experiments of the few, may be roughly stated as follows. *Relapsing fever* has been connected with a peculiar organism—"spirillum"—found in the blood during the paroxysms, but not clearly demonstrated to be the cause of the disease it accompanies. *Malignant pustule* or *charbon* has been shown to result from the inoculation of the purely-cultivated *Bacillus anthracis* into healthy animals; and from among the many other micro-organisms which have been discovered and discarded as concomitants or possible causes of several human diseases, the *Bacillus tuberculosis* of Koch stands out pre-eminently as in some very striking way connected with the disease (both in men and animals) whence it derives its name, and, by consequence, with many forms of consumption of the lungs. It is this last bacillus which is of far the greatest interest to the profession, for many reasons. It is vouched for by the best observers, and has an overwhelming amount of evidence for its special nature and peculiar habitat. It occurs in relation to a disease whose fatal and widespread incidence on humanity has the gravest import, and its causative influence as the actual producer of the malady is believed in by many who have themselves experimented with it. A further question, too, is obviously connected with this discovery—a question likely to be asked at once by everyone, whether medical or not, and already answered all too soon by the thoughtless—"Is consumption catching?" For hitherto it has been in the infectious diseases that the germs were expected and sought for—infection, indeed, being the very scent on which the germ-hunt has mainly depended. The absorbing interest attaching to this subject, and the influence it may have on the opinions and practice of us all, renders necessary a clear understanding of what has,

and what has not, been absolutely settled in this branch of research. And, with regard to the bearing of our belief about germs on the practice of to-day, we may take as the text of a few words of warning this very bacillus of tubercle, not only for the reasons stated above, of the intrinsic importance of its relations, but also because it seems at present that tuberculosis is almost the only human disease attributed to a germ, which has already been regarded by many in a new light owing to this recent hypothesis, and may thereby undergo a kind of pathological and therapeutical revolution. The latest discovery of a specific germ in the case of cholera may for the present purpose be ignored, as not only is it not yet demonstrated to be in any sense the cause of the disease, but hitherto also inoculation-experiments have entirely failed. The opinion, moreover, of many who have had the widest and closest experience of cholera cases is strongly adverse to the notion of the disease being contagious, as shown afresh by the speeches of Surgeon-Major T. Lewis, Dr. J. Ewart, and Sir J. Fayrer on the subject of quarantine at the late Intercolonial Medical Congress at Amsterdam. These gentlemen expressed very decided views on this point, and pointed out that the disease did not spread among the nurses or doctors who attended the sick, nor even among those who removed or washed the soiled linen; and attention was called to the fact that Drs. Lewis and Cunningham, while making their experiments, had been constantly, and with perfect impunity, in close contact with cholera discharges in all stages of metamorphosis and decay.

Let us look for a moment at the state of belief about *phthisis* which prevailed before this last discovery, and then at the position of the most emphatic advocacy of the infection theory, before we decide how far the real facts underlying the latter will justify us in largely rejecting our previous creeds and practice. Not long ago we widely believed that *phthisis* was not uniform, nor always indeed tubercular; that it was strongly hereditary, and but doubtfully, or not at all, "catching"; that it was closely connected with climatic conditions, especially with dampness of soil, and in a pre-eminent degree occasioned by close confinement and deprivation of fresh air. We believed too, to some extent, that consumption, in those predisposed to it, might be set up by mental trouble and prolonged anxiety. For most of these notions there was abundant evidence, in some cases amounting almost to demonstration; and satisfactory results therefrom in treatment have not been wanting. But the view that the *bacillus* is the cause of nearly all cases of so-called *phthisis* is certainly, on the face of it, antagonistic to these opinions, and, if established, would tend to invalidate many of them. And it is remarkable that as soon as several observers had shown the almost unvarying concomitance of the bacillus with tuberculosis, and its power of producing the acute form of the disease in animals by inoculation, many were found to not only at once conclude that the sole cause of *phthisis* was at last discovered, but also to loudly preach that the disease was really catching, and that, after all, it did not run so much in families. In lectures and articles the profession was suddenly taught that science had decided that *phthisis* was caused by a "specific" germ; that it was consequently infectious, and might probably be prevented or in some cases cured by antiseptic inhalations. Although, moreover, the old-established notions about *phthisis* did not in any sense negative the probability of the newly discovered organism being a factor in the production of the disease, yet an undue eagerness to discredit them undoubtedly showed that they no longer suited the book of the propagandist of the novel doctrines.

Undoubtedly the prevailing teaching as regards the origin



of phthisis is not harmonious with the reception of the exclusively causative action of the bacillus. It has already been often said, and still more often thought, that if a bacillus in the air is the cause of consumption there should be but few who escape from its virulent attack. And at this point it seems clear that it is the factor of a suitable field for phthisis to develop in, which is all-important from a practical point of view. Even though it be admitted to the full that the action of the bacillus is absolutely necessary for the production of phthisis, and the conclusion of the purely scientific workers on the subject be accepted without reserve, yet surely Dr. Koch himself would grant that, at present, there is no reason whatever for the practice built on the older views to be upset or disregarded, as some of his pseudo-disciples seem to be preaching now. Though some might think that the question as to the suitable soil for the development of the tubercle germ is scientifically subsidiary, yet it is obvious that, from the point of view of practical medicine, it remains an all-important one. In proportion as a "specific" bacillus is regarded as the one etiological agent in phthisis, there is but little hope held out to us for the prevention of the disease; for we are told absolutely nothing of the source from whence the germs arise, and we may never be able to find or attack them till the disease has far progressed. On the other hand, previous researches and long-established experience have taught us much that is valuable touching the conditions which are favourable to phthisical disease. With the exception of the *primâ facie* possibility of a greater infectious character in phthisis than is generally believed in, we have but little of a practical nature added to our knowledge and treatment of consumption, and nothing to unlearn, from these most recent researches into its etiology. Before we receive into our pathology and practice the new teaching that some would thrust upon us, we must wait for more work in the matter of micro-biology. We must regard with the deepest interest what scientific workers have to tell us on this subject, and hope for much light from their labours; but must refrain from rashly applying in the sphere of practical medicine the result of insufficient inquiries. The students in this department of pathology will readily admit that, in default of inoculation-experiments on human beings, there is much still to be learnt concerning the causative part played in consumption by the *Bacillus tuberculosis*; and it may further be said that the whole question of the really "specific" or stable nature of the virulent germs of disease is not yet entirely settled. In another column the question is discussed of the variability, according to conditions of cultivation, of the lowly organisms known by the name of *bacteria*; and it will thence be seen that the matter of specificity of germs, quite apart from all distracting relations with disease, cannot be regarded as once and for ever set at rest by past or contemporary discovery. For his own sake, then, and that of his patients, let the Physician beware of rushing in where the Biologist as yet but warily treads.

#### THE CONVICT COLE.

A LETTER from Dr. Jackson, of Croydon, which appeared in the *Times* of the 23rd ult., supplies strong corroboration of the view that the convict Cole, who now lies under sentence of death for the murder of his child, is of unsound mind, and has been so for several years past. As far back as 1877 he was received into the Croydon Workhouse as a wandering lunatic, and was certified as labouring under mental disease. Again, in 1879 he was admitted there while labouring under alienation of mind. Some working men who have been on terms of intimacy with him for a long period have always regarded

him as a lunatic. Witnesses ready to give evidence embodying these facts were in attendance during his trial at the Old Bailey, but were not called, although the paramount importance of their testimony to the prisoner's defence was well known to the counsel for the prosecution. Dr. Jackson boldly affirms that proofs which would have convinced the jury of the prisoner's insanity were in the possession of the Crown at the time of the trial, but were wilfully withheld. This is a serious charge, falling very little short of one of judicial murder against the Crown authorities, and we can only hope that Dr. Jackson has been mistaken in making it. The matter cannot, however, rest where it is. The charge must be withdrawn, repudiated, or fully established. In the latter case some very unpleasant consequences would ensue, as the country is in no mood to stand wilful suppression of evidence on the part of the Public Prosecutor or his emissaries. Blundering it may tolerate for a time, but it will not overlook an offence like that which Dr. Jackson alleges to have been committed in this case.

Whether or not Dr. Jackson has been misled in making his accusation against the Crown authorities, it must be admitted that his letter is a very able one, and contrasts favourably, as regards tone, directness, and logical force, with the article to which it is a reply. He puts in a clear light the inhumanity, unwisdom, and inutility of hanging a lunatic murderer; pointing out that it would be as rational to punish a man for displaying the symptoms of cardiac or renal disease as for exhibiting those of cerebral disease. To be ill is, he says, no crime, but a ground of pity; and it is so equally whether the illness is located in the liver or lungs, or in the brain. He vindicates successfully the claim of medical science to decide on the presence or absence of cerebral disease, and exposes the fallacy of the familiar theory that twelve plain men in a jury-box are as good judges of insanity as any doctors can be. The twelve plain men are just as capable of determining whether a man is atheromatous or cancerous, as they are of saying whether or not he is insane. No opinion which they can give on such a question is worth anything, unless they have been guided to it by medical men, who are not, at any rate, behind the general community in intelligence, and who have devoted their lives to the study of disease.

The extent of the field of medical science and the division of labour which has thus taken place, has led certain medical men to apply themselves more particularly to the study of mental affections, and it is but reasonable to suppose that they will be better judges of a man's sanity than other medical men who have bestowed no special thought on these affections, and infinitely better judges than a dozen men chosen hap-hazard from a jury-list. You may sneer at the mad doctors, remarks Dr. Jackson, and designate them "so-called experts" and "medical theorists," but you practically admit their superior skill every time that you consult your solicitor on law, your architect about your house, or your veterinary surgeon about your horse; and, notwithstanding all your affected contempt for them, you would lose no time in flying to them for aid did you detect any disorder in your own mental machinery or in that of any member of your family! Dr. Jackson marshals in an impregnable array the evidence of the madness of the man Cole, which seems, indeed, to have been of the most pronounced type. He laboured under delusions which must have warped every thought and feeling, and which certainly overpowered him when he attacked his child. Sir William Harcourt would be amply justified in sending him to Broadmoor at once, but perhaps an inquiry must take place for form's sake. There cannot be a shadow of a doubt as to what the issue of that inquiry will be, if it be undertaken by men who have mastered the elements of psychological medicine.



## CHRONICLE OF THE WEEK.

THE medical session began last week in Edinburgh with the usual introductory lectures by the various professors and lecturers, abstracts of which will be found in another column. The most interesting were those of Prof. Grainger Stewart and Prof. Rutherford. Dr. Grainger Stewart gave the results of his experience at the popular resort of the rheumatic, Aix-les-Bains, and advocated the addition of Zander machines to the therapeutic appliances already in use at that and cognate watering-places. Dr. Stewart did not allude to it, but the success of both these modes of treatment in rheumatism is due to the improvement in nutrition which they promote. The intimate pathology of rheumatism is still an unexplored field, but many more cases are probably due to starvation of tissue, the result of overfeeding and imperfect digestion, than to a definite vicious principle in the blood. Prof. Rutherford spoke, of course, about vivisection and the endowment of research. He showed that, instead of the use of anæsthetics in vivisectional experiments being forced upon the physiologists by the anti-vivisectionist outcry, it had been resolved upon by them before that outcry arose. Another point he made was that in therapeutics experiments on animals were necessary, because, if we tried new drugs on human subjects, without the knowledge derived from previous vivisectional experiments, we might, in case of misadventure, be indicted for manslaughter. That is an argument which will appeal very forcibly to those who believe that, in Nature's bountiful pharmacopœia, there is a specific for every complaint. You put Nature's book on the shelf when you forbid vivisection. So the superstitions fight it out amongst themselves, while the sceptic stands by watching the fun. Each will have its martyrs, of course. On the one side we shall see the ardent therapist writhing in the felon's dock because he has killed some one in his eagerness to cure him by a hitherto unheard-of remedy; on the other side we shall see the anti-vivisectionist writhing in his bed because of course he will not consent to take advantage of drugs, the action of which has been determined by experiments on the animals he loves. It remains to the therapeutic sceptic to suggest an expedient which will work happily for all parties—men and animals included. Let the anti-vivisectionist himself take the unheard-of remedy, and the responsibility of its consequences.

At the Clinical Society's meeting on Friday, October 26, papers were read by Dr. Charlton Bastian on two cases of Intraventricular Hæmorrhage from Aneurysm and from Embolism respectively, and by Dr. Althaus on a case of Syphilitic Tumours of the Cerebral Membranes. Both papers gave rise to interesting and well-sustained discussions, especially with respect to the diagnosis of syphilitic lesions in cases where no evidence of acquired or congenital syphilis can be brought forward. An interesting case of dislocation of the jaw, reduced after eighteen months, by Mr. Golding Bird, was also related. Living specimens of (1) aphemia following a severe injury to the left side of the head, by Mr. G. R. Turner, and (2) radical cure of femoral hernia, by Mr. Berkeley Hill, were exhibited before the meeting.

THE 111th session of the Medical Society of London was opened on Monday evening, Sir Joseph Fayrer, President, in the chair. In welcoming the Fellows, he briefly sketched the rise and progress of the Society, which was older than any other in London. It was founded by men who were distinguished in the times when George the Third was King.

Though venerable in years, it was active in work. He referred in terms of satisfaction to the completion of their new rooms, and to the recent visit of the Prince of Wales on the occasion of their opening. Among the Fellows deceased during the preceding year, mention was made of the late Dr. Boyd and his son, and of their gallant attempt to save the lives of their patients at the disastrous fire which wrecked the lunatic asylum over which the former presided, and in which they both lost their lives. Sir Joseph congratulated the Fellows present that their session was about to be opened by a paper from Prof. Lister, whose name stands so pre-eminent as a scientific surgeon at the present time. In this paper, Prof. Lister recorded the treatment of seven cases of Fracture of the Patella, which were cut down upon and wired together. The operation consists in making a longitudinal incision over the middle of the patella, cleaning out of the knee-joint any blood-clot which may have collected, freshening the broken surfaces of the patella, and then wiring them together. In this manner bony union is secured. The cases were of two kinds—recent; and those in which some time had elapsed since the fracture, and where there was fibrous union with a greater or less interval between the fragments. The recent cases are, of course, the more easy and satisfactory to treat; there is no difficulty in approximating the fragments after the blood-clot and effused matters have been sponged out of the joint. But, in the older cases, the fragments are often widely separated; possibly there is contracture of the quadriceps tendon, which must be divided; or the fragments of bone may be atrophied. Examples of these conditions, with the result of the operation, were exhibited to the meeting. It would be impossible to speak too highly of the results obtained; bony union of the fragments, with almost perfect movement of the joint, had resulted in every case. We heartily congratulate Mr. Lister on his results. The discussion was postponed until next Monday. It would be interesting if other surgeons were to produce their cases, so as to contrast the results of treatment by the ordinary means with the plan advocated by Lister. It is needless to say that these cases were treated on the strictest antiseptic method.

THE report of the three surviving members of the Pasteur Mission is still unpublished. It is stated that it will be very elaborate, and will be presented to the Minister of Agriculture, whose Department includes questions of public health. Meanwhile M. Pasteur has been interviewed, and it appears that he is at once pleased and disappointed with the results of the expedition. He is disappointed because M. Thuillier and his colleagues were not able to inoculate any animals with the cholera germ, apparently because they did not succeed in discovering it; but he draws consolation from the fact that the German inoculation-experiments were also without result. Indeed, M. Pasteur almost despairs of final success until he can find some man of sufficient public spirit to deliver himself over as a subject for experiments of this kind. Meanwhile, the mission has done much useful work, and has limited the field for future inquiries. In relation to this subject we would draw attention to our two leading articles on the connexion between germs and disease, written respectively from the view-point of the biologist and the physician.

ONE of the evening journals has called Lord Salisbury's new departure in respect to the dwellings of the poor "a leap in the dark." To other people, and certainly to the medical profession, it will appear rather "a leap into the light." In this matter, however, leaping is not likely to be of much



use. It is the steady upward climb, with eyes firmly fixed on the goal, and lured away from it by no dazzling prospect of party gain, that is demanded of our statesmen, if any good is to result from their endeavours. So far we have seen both parties playing with sanitation—rivals in big words and trifling measures. What is wanted is courage. One does not ask that the State should undertake the re-housing of the poor. That would be perhaps the worst—certainly it would be the most expensive way of doing it. But the State ought to put the screw on the owners of property, without remorse, forcing them to pull down their rookeries, and rebuild them under sanitary control. No one can be deemed to have a right to exact from the poor a rent in death and disease as well as in money. The rights of property have no *locus standi* against the rights of health. If "State socialism" means decent dwellings for the poor, the medical profession at least will be on its side, as well as Lord Salisbury.

A curious illustration of the twist which the possession of vested interests is apt to give to the human mind will be found in a letter in the *St. James's Gazette* for Tuesday last. The writer confesses to being an owner of some of the class of houses against which Lord Salisbury has been inveighing, and he finds it so difficult to collect his rents that he has taught himself to regard them not as interest on capital, but as the just remuneration of a very unpleasant trade. To him the problem which has puzzled Lord Salisbury appears easy of solution. Who, he asks, will benefit by the removal of the rookeries? Why, the surrounding population, of course, he replies; and it follows, equally of course, that it is they who ought to pay for the improvement. In other words, the landlords are to be paid out of the pockets of the community for removing a nuisance which their own neglect has allowed to grow up. That is surely the *reductio ad absurdum* of the rights of property. One of the aphorisms of that dreadful monster, Karl Marx, was "No rights, no duties; no duties, no rights,"—a saying which the owners of rookeries will do well to take to heart.

THE painful intelligence of the death of Mr. James Shuter, which took place on Thursday morning, from an overdose of morphia, will be received with profound regret by all who have been at St. Bartholomew's Hospital during the last ten years. Having graduated in Arts and Law in the University of Cambridge, Mr. Shuter entered St. Bartholomew's Hospital in 1869, where he soon made his mark as one of the most industrious students of his day. In 1874 he passed his final examination for the M.B. degree, and in October of that year he became house-surgeon to Mr. Holden, and subsequently was house-physician to the late Dr. Black. Coincidentally with this post, he held the office of Demonstrator of Physiology in the Medical School, and subsequently, for four years, was one of the Assistant-Demonstrators of Anatomy. Last year he was elected Assistant-Surgeon to the Hospital, having for several years previous held a similar appointment at the Royal Free Hospital. Well educated, enthusiastically attached to the profession of his choice, and a man of the strictest integrity, Mr. Shuter was one of those whom we can ill afford to lose. No man could have been more persistent or painstaking with students than he was, or more anxious to give every patient who came under his care the benefit of his very best advice. He wrote very little indeed, and was not even a contributor to the Hospital Reports; but, nevertheless, the memory of James Shuter will long remain fresh in the hearts of those who knew him.

THE current numbers of the foreign journals are unusually interesting. In the *Progrès Médical* there is an Obituary

Notice of M. Depaul, besides articles on Lathyrism and Beriberi, by M. Marie, and on Hemiatrophy of the Tongue in Tabes Dorsalis, by M. Ballet. The *Gazette Hebdomadaire* contains an article on Ammoniacal Urine by M. P. Réclus, and the conclusion of an article by M. Warlomont on the Origin of Vaccinia. The *Gazette des Hopitaux* contains an article on Zona and its Tendency to Relapse, and one on Sudden Chilling of the Eyeball as a Cause of Abscess of the Cornea. The *Centralblatt für Klinische Medizin* contains an abstract of Heubner's prize treatise on Experimental Diphtheria, and of Sodoweu's investigations "Ueber den Kefir"; papers on Loss of Power in Limbs in Cerebral Hemiplegia, by Pitres and Friedländer respectively, are also contributed. In the *Berliner Klinische Wochenschrift*, Dr. Bidder, of Berlin, discusses the relation of the Alkaline Salts in Food to the Etiology of Tuberculosis; Dr. Schroeder, of Stendal, contributes a paper on methods of discovering Simulation of Unilateral Blindness; and Dr. Goutermann relates the course of a case of Traumatic Tetanus treated by Injections of Curare. The *Wiener Medizinische Wochenschrift* contains a paper by Dr. Heitler, of Vienna, on the diagnostic and prognostic importance of the Tubercle Bacillus in Sputa; Dr. Drasche's paper on the Spread of Cholera, and Dr. Pünser's article on Hepatic Abscess, are respectively concluded and continued.

#### MEDICAL ENTRIES AT CAMBRIDGE.

It appears, from information furnished to the *Cambridge Review* by the several tutors of colleges, that no less than ninety of the freshmen this term are intending to study medicine. This large accession of medical students makes, therefore, no small item in the increase in the number of undergraduates who have matriculated in the present year as compared with former years; and this growth of the Medical School, if continued, which we may infer is likely to be the case from the increased opportunities for medical study, and the increasing desire to graduate in medicine at Cambridge, will soon render the Medical School of the University one of the largest in England. Indeed, the entry this year is exceeded, we believe, by that of only one of the metropolitan schools. The new comers are distributed among the several colleges (the number of those who have commenced as non-collegiate students has not been ascertained), but the largest entry (twenty-five) is at Caius, the next (sixteen) is at Cavendish.

#### OPENING OF THE SESSION AT ABERDEEN.

THE medical session at Marischal College was opened on the 24th ult., when the various professors, with the exception of Dr. Hay, the newly appointed Professor of Medical Jurisprudence, began the winter curriculum of study. Prof. Stirling, in opening the course of physiology, gave an address upon the subject of "Heredity in Health and Disease," quoting numerous instances of the hereditary transmission of the external characters and peculiarities of the bony and muscular and other systems of the body. The question as to the hereditary transmission of the intellectual qualities was answered in the affirmative, the basis of this reply being the elaborate statistical researches of Mr. Francis Galton in his works on "Hereditary Genius," and "Inquiry into Human Faculty." The importance of heredity in disease was discussed, and Dr. Stirling advocated the adoption by medical men of the plan of "Medical Family Registers," recently suggested by Mr. Galton in the *Fortnightly Review*, and he also urged that the question of heredity in disease should be taken up by the Collective Investigation Committee of the British Medical Association. It was pointed



out that heredity was essentially a conservative agency, which tended to perpetuate in the race variations occurring in the species, evolution and heredity together playing a most important part in the development and progress of the race. It is by such means, along with the changes produced by the active use of an organ, resulting in the "functional increment," as Herbert Spencer observed, that the intellectual characters of the race have undergone development. Thus it happens, as Spencer also points out, that faculties as of music, which scarcely exist in some inferior races, become congenital in superior ones; similarly from savages speaking a language containing only nouns and verbs arise at length our Newtons and Shakespeares. Prof. Ogston, in opening the surgery class, ridiculed the idea of delivering introductory addresses, declaring that in all such addresses he had ever read he could not recall a single sentiment that was worth the uttering. The man who could write a good introductory address to a medical class had yet to burst upon the public. Prof. Struthers, in opening the anatomy class, made no formal introductory address. He referred at some length, however, to the modern method of study, and to the scientific spirit with which it was imbued. He also referred to the success of Scottish universities as schools of science, as well as of medicine, and congratulated the students on attaching themselves to an institution which had made so great a name among medical schools. Prof. Hamilton, in opening the pathology class, gave a synopsis of the works of the most eminent pathologists of the present era.

#### ONE OF THE ENGLISH MISSION ON THE CHOLERA IN EGYPT.

A LECTURE on Cholera was delivered on Friday evening, the 26th ult., before the Medical Society of Charing-cross Hospital, by Mr. James Cantlie, Senior Assistant-Surgeon to the Hospital, who has lately returned from Egypt, where he had been engaged as one of the Special Medical Mission. Sir Joseph Fayrer, K.C.S.I., occupied the chair, and there were several present who had had large experience of cholera in India. Mr. Cantlie prefaced his remarks by stating that the present epidemic in Egypt was interesting as being the first on record in which cholera had existed in any country independently of a simultaneous epidemic in India. The lecturer then, in a quaint, amusing, and instructive manner, gave a lucid account of his experiences and impressions. The filthy state of the town in which he was engaged was minutely entered into in all its details. The appearance of a cholera patient was exactly drawn; and of all the drugs employed in treatment, lead and opium, in decided doses at the outset of the disease, were alone found to be worthy of being called successful. For the first time has anyone traced the history of the disease in Egypt as following a particular course. Commencing at Damietta, the lecturer pointed out that the towns higher up the Damietta branch of the Nile were attacked in succession—first Shirbeen, then Mansourah, and finally Cairo. It there took two courses, one up the Nile, the other up the Rosetta branch. Attacking Kafr-Zayat, and then Rosetta, it finally reached Damanhour and Alexandria. The two last towns being on canals derived from the Rosetta branch, and consequently farthest by water from the original seat of the disease, were attacked last. The possibility of the pollution of the river by fish ascending the stream was discussed, and a few remarks afterwards from Mr. A. H. Hooker seemed to give colour to the idea suggested. The absurdity of the quarantine and cordon arrangements was dealt with in a telling manner, and an account of the quarantine arrangements at Brindisi, Malta, Suez, etc., was given. Sir Joseph Fayrer afterwards gave

a clear summary of his beliefs as to the causes, course, and treatment of cholera. The simile of attempting to keep back a flock of locusts by a five-barred gate, as applied to the prevention of cholera by quarantine and cordons, was a particularly happy one. Mr. Bloxam, Drs. Longhurst, Watson, and Cullimore, gave their experience of previous cholera epidemics at home and abroad. A vote of thanks to the chairman closed the proceedings.

#### SYPHILIS OR TUBERCLE?

A QUESTION of more than pathological interest was, perhaps unintentionally, brought prominently before the members of the Clinical Society at its last meeting. The proposition may be briefly stated thus:—Are we justified, in the present state of pathological knowledge, in pronouncing certain lesions of the brain and meninges to be syphilitic, from their anatomical characteristics alone? The occurrence of small tumours, varying in size and situation, but usually scattered about the base of the brain, is familiar to most pathologists, and these, when occurring in cases of undoubted syphilis, have been universally recognised and described as syphilitic lesions. Other tumours not unlike them are, however, found in association with miliary tubercle, and these have, in consequence, been held to be tubercular in character, and, in fact, to have been foci of auto-infection for the acute disease. But, regarded from the standpoint of morbid anatomy only, these two varieties of tumour appear identical. Perhaps, with the improved and daily improving means of identification, it will be possible to differentiate the forms of bacteria which respectively inhabit them, and so to tell with certainty the tubercular from the syphilitic nodule. We imagine, however, that most of our readers would feel disposed to agree with Sir Andrew Clark in his strongly expressed opinion that a positive diagnosis of such lesions is not warranted from the anatomical appearances alone, but can only be made by associating these appearances with the clinical history of the case. This opinion, it is true, is not universally accepted, and some pathologists feel themselves as fully justified in diagnosing the syphilitic nature of anatomical changes from their appearance alone, as are the large majority of physicians in recognising syphilitic changes in the skin and other epidermal structures on similar grounds. The diagnosis of syphilis as a cause of anomalous rashes on the skin is made every day, without a tittle of evidence being adduced in its favour, beyond the appearance of the rash itself and the probability of its disappearance after specific treatment. That a vast amount of moral injustice is thus done to the living, and, in the case of post-mortem appearances, to the memory of the dead, is obvious, and for that reason, in addition to the scientific interest of the question, the subject deserves more careful investigation at the hands of pathologists than has hitherto been the case. That certain definite lesions, not differing anatomically from one another, can be respectively associated with syphilis and with miliary tubercle, and may also occur with complete independence either of these, seems to suggest the probability that a third cause must be at work, perhaps upon the vascular supply of the parts affected, of which we are at present in complete ignorance.

#### THE HEALTH OF WEST SUSSEX.

THE exhaustive and elaborate report of Dr. Charles Kelly on the condition of the Combined Sanitary District of West Sussex, for the year 1882, is just issued. It is a work of some volume (189 pages), but we may say that every page will repay perusal, and especially by all interested in the district dealt with. The statistical and other tables are most carefully compiled, and every possible information



regarding local sanitary matters is placed in a short and readable form before the public. The Combined District includes the rural localities of Steyning, Horsham, Petworth, Thakeham, Midhurst, East Preston, and Westbourne, and the towns of Worthing, Littlehampton, and Arundel—a population of 96,220, scattered over an area of 309,078 acres. The population here increases but slowly, a constant exodus taking place from the agricultural districts, whence the young people flock to the larger towns for a living. Many parts of West Sussex are, in fact, among the most “truly rural” of England. The death-rate is low, only 14 per 1000, as against 19·6 for all England and Wales; the zymotic death-rate being only 1·35 per 1000, as against 2·82 for England and Wales. Interesting particulars regarding local outbreaks of scarlatina, diphtheria, and small-pox will be found in this report. The facts regarding the latter disorder we recommend to the consideration of the anti-vaccinationists. One variolous epidemic was traced to “rag-sorting” at a paper-mill. All local questions of drainage and water-supply are concisely dealt with, and the meteorological particulars are unusually complete. Such reports as this, containing a mass of condensed information of not merely local but national interest, should be read by all students of public health. It is from them that the statistical particulars must be drawn, upon which the etiology of preventable disease, and the whole fabric of hygiene as a science, must be reared. Such able and accurate observations as these from West Sussex must add materially to the data upon which the sanitation of the future will be based.

#### THE FALL OF THE LEAF.

WITH the universal prevalence of damp “muggy” weather, and the fall of the leaf, we shall probably hear the more or less general tale of complaints which are attributed, rightly or wrongly, to the depressing effects of moisture, absence of sunshine, and decay of vegetation. That rheumatisms, catarrhs, and neuralgias do trace their origin to, and draw their strength from, the climatic conditions of damp and cold in air and subsoil, is a proposition whose truth few will be found to doubt. The elaborate researches of Dr. Gabbett, as recorded recently in the *Lancet*, tend, on the whole, to strengthen our preconceived ideas on the subject. The “malarious” origin of rheumatic fever must remain still in the field of etiological theorisation, as difficult of demonstration as of disproof. But the link between damp “under foot,” rotting leaves, and diphtheria in all its forms (from the malignant type to the “spreading quinsy” of some authors) is one towards the strengthening of which facts and figures should still be sought and tabulated. Dr. Charles Kelly, in a succession of able reports, to the last of which we have referred above, has gone some way towards showing that, in most of the rather numerous epidemics of diphtheria which have occurred in his district within the last few years, a clear connexion may be traced between the disease and the moist condition of the air and soil. Much of this district of West Sussex lies in thickly wooded rural regions, with an ill-drained and impervious soil of gault or weald clay; and it is in these parts that the disease has commonly prevailed. How far the organic emanations from decomposing leaves and vegetable refuse may help to supply a cause, and how such emanations produce their deleterious effects, are problems of great interest, upon which further observations may throw increased light. It is, at least, possible that the process of vegetable decay may favour the production not merely of new chemical compounds, but of some disease-producing micro-organisms, in which the germ of diphtheritic contagion may hereafter be recognised and combated. We would direct the energies of observers in country districts to these points.

#### ROYAL COLLEGE OF SURGEONS IN IRELAND.

ON Monday, the 29th ult., the session of 1883-84 was inaugurated by an address delivered by Dr. Arthur Wynne Foot, Professor of Practice of Medicine in the School of Surgery attached to the College. In the course of the address, Dr. Foot referred to the institution by the College of sessional examinations, of which he expressed approval, and he dwelt at length on the nature and scope of the studies to be pursued in each session of the student-course. He reminded his hearers that the course of education on which they were entering was one admitting of no delay, and that, after all, four years was but a short time for a mind still immature to be occupied in mastering and digesting so many subjects and so many details. They ought to aim at perfection. Although perfection in most things was unattainable, still they who aimed at it and persevered, who attacked their difficulties again and again, undaunted by repulse, would come much nearer to it than those whose indolence and despondency made them give it up as hopelessly beyond their reach. The best help that any of them could take advantage of was self-help.

#### BREAKING DOWN OF A UTERINE FIBROID DURING PREGNANCY.

It is well known that for sloughing and suppuration of uterine fibroid to take place during the lying-in period is not uncommon. The great increase in the vascularity of the uterus which takes place during pregnancy, usually leads, on the contrary, rather to increased growth, softening, and œdema of these tumours. A case in which, during pregnancy, suppuration and sloughing of a uterine fibroid took place, and which is recorded by Dr. G. Krukenberg, of Bonn, in a recent number of the *Archiv für Gynäkologie*, is therefore of much interest. The patient was aged forty-three, in her third year of married life, and pregnant for the first time. On examining the abdomen at the end of the fourth month, two tumours were felt, one to the left (the pregnant uterus), one to the right, the fibroid. A smaller fibroid was situated in front, but as this underwent no remarkable change we need not again refer to it. As the pregnancy went on, the tumour became painful, there was pyrexia of irregular type, and the patient became very prostrate. In the fifth month of pregnancy an exploratory incision was made, in the belief that the tumour on the right might be an abscess requiring evacuation; but when the abdomen was opened the tumour was found to be continuous with the uterus, and therefore the wound was closed. Thirteen hours afterwards labour came on, and was completed in four hours. The symptoms subsequently became more marked, the patient passed into a typhoid condition, and died on the sixth day after the operation. The autopsy showed peritonitis: the tumour to the right of the uterus formed, with the cellular tissue adjoining, a dirty-greyish, semi-fluid, slimy mass, which communicated with the uterine cavity by an opening about the size of a shilling. On microscopical examination, muscular fibres were found in the disintegrating mass. Dr. Krukenberg thinks the morbid process probably began with an effusion of blood between the tumour and its capsule, cutting off its nutritive supply, leading to sloughing and suppuration, and the pus making its way into the uterine cavity. He has only been able to find two cases on record at all resembling this: one reported by Cappie, in which a subserous fibroid became gangrenous during pregnancy from twisting of the pedicle; and another by Hecker, in which, on autopsy of a pregnant woman who died from pulmonary tuberculosis, and had no other symptoms than those referable to this condition, a fibroid was found, softened in its interior into a reddish pulp. It is



interesting to note that a pregnant woman, who nursed Dr. Krukenberg's patient, became herself ill, suffering from irregular pyrexia without apparent cause. She, however, bore a healthy child and recovered. Dr. Krukenberg gives her illness the ingenious name of cryptogenetic septico-pyæmia.

#### THE PARIS NIGHT SERVICE.

IN his report for the quarter ending September 30, Dr. Passant states (*Gaz. des Hop.*, October 16) that the total number of night visits paid was 1659, being 94 more than those for the same quarter in 1882. Of these 1659 visits, 35 per cent. were paid to males, 53 per cent. to females, and 12 per cent. to children under three years of age. The mean number of visits per night was 17.92 per cent., and in 44 instances the person was dead before the arrival of the medical visitor. Among the affections for which the visits were paid, there were 84 cases of angina, laryngitis, and pertussis; 28 of croup; 184 of diseases of the respiratory organs and heart; 85 of various forms of colic; 20 of strangulated hernia; 23 of retention of urine; 338 of diseases of the nervous system; 68 of various forms of hæmorrhage; 106 wounds and contusions; 26 fractures and dislocations; and 11 poisonings. Rather more than a fifth of the whole number of visits (314) were paid to women in labour or suffering from metritis or uterine hæmorrhage.

#### THE DURATION OF LABOUR.

A RECENT number of the *Archiv für Gynäkologie* contains a paper by Dr. R. Lumpe, of Vienna, on the above subject. He has noted the duration of labour, counting from the time when the pains were first felt by the patient, in 1045 cases; and he finds that the average duration of the process, measured in this way, was sixteen hours and a half—a result not widely different from that reached by others who have investigated the question in the same way. But the point of the paper is this: that in the last week or fortnight of pregnancy there takes place, first, a serous infiltration, a kind of œdema of the cervix, and then a slight, gradual, and painless opening of the cervical canal. This, Dr. Lumpe contends, should be regarded as part of the process of labour. He gives a table of fifty first labours observed by himself, in which he examined the patients during the last fortnight of pregnancy, and thus was able to observe this painless opening of the cervix as an initial sign of the approach of labour-pains. He records in the table the dates at which the cervical canal was found patent enough to admit the finger, when the pains began to be felt, and when delivery took place. His observations lead him to the conclusion, as we have said, that this opening of the cervix begins from eight to fourteen days before the uterine contractions commence to be painful. He considers that it is effected by uterine contractions like those which Dr. Braxton Hicks has described as occurring throughout pregnancy.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-second week of 1883, terminating October 18, was 989 (551 males and 438 females), and of these there were from typhoid fever 41, small-pox 3, measles 3, scarlatina 1, pertussis 12, diphtheria and croup 35, erysipelas 2, and puerperal infection 5. There were also 42 deaths from acute and tubercular meningitis, 207 from phthisis, 18 from acute bronchitis, 49 from pneumonia, 89 from infantile athrepsia, and 34 violent deaths (28 males and 6 females). A very slight increase of deaths has taken place upon those of the preceding week, while epidemic diseases continue to furnish the same low proportion. The births for the week amounted to 1254, viz., 628 males (453

legitimate and 175 illegitimate) and 626 females (454 legitimate and 172 illegitimate); 84 infants were either born dead or died within twenty-four hours, viz., 51 males (30 legitimate and 21 illegitimate) and 33 females (16 legitimate and 17 illegitimate).

#### PRACTICAL LECTURES AT THE HOSPITAL FOR WOMEN.

THE staff of the Soho Hospital for Women have organised a course of lectures for practitioners and students, which, judging from the state of the theatre at those which have hitherto been given, promise to be successful. Dr. Heywood Smith is lecturing on Cervicitis, its Causes and Treatment, and has one more lecture to deliver on the subject. He will be followed by Dr. Charles Carter, who will discourse on Ovariectomy; and the first course will be completed by Mr. Reeves on Tumours of the Breast and Stricture of the Rectum, followed by Dr. R. T. Smith on Cervical Fissures and Emmet's Operation. The subjects are all of a practical nature, and cannot fail to interest and instruct the practitioners and students for whom they are intended.

#### CRUELTY TO HORSES.

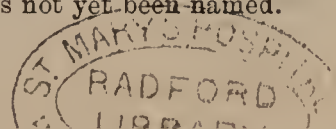
A MAN was fined lately at Newcastle for docking a horse. Certainly there is very little to be said in favour of this custom, but it may be urged that the pain thus inflicted is small in comparison to that induced by other practices which are very extensively tolerated. Far more suffering is caused to horses by tight bearing-reins than by docking. The discomfort of the latter may last a few days, whereas the intense irritation and painful constraint caused by a bearing-rein is in operation whenever the horse is placed in harness. The general public are guided in their estimation of animal suffering by sentiment rather than by knowledge, and they are very much impressed by the idea of blood being spilt. The surgeon, on the other hand, who has studied the nature of pain, and whose whole life is devoted to its removal or its amelioration, well knows that the sensation caused by an incision with a knife is often very trivial in comparison with many other kinds of suffering in which no blood is shed, and which to the uninitiated may seem less serious. He is also able to duly estimate the suffering caused by the cramped position of horses' heads produced by tight bearing-reins—a universal and useless form of cruelty which receives no punishment, and is rarely even disapproved. Many a well-meaning owner of horses and carriages allows his animals to be tortured for six days in every week, who would shudder at the thought of the decapitation of a frog.

THE Library of the Obstetrical Society of London will be open on the evenings of the meetings of the Society from 7.15 to 7.45 p.m.

A READERSHIP of £200 per annum is to be attached to the Professorship of Botany at Oxford, now vacant, but shortly to be filled. The emoluments of this chair will thus be raised to £500 per annum.

THE total number of new entries for the present session at the University of Durham College of Medicine, Newcastle-on-Tyne, is 68, of whom 25 are full students, and 43 partial students who have entered for the purpose of obtaining the degrees of the University.

It is stated that Dr. James Stannus Hughes, the efficient and courteous Secretary to the Council of the Royal College of Surgeons in Ireland, is about to resign the post he has so long filled with such credit to himself and advantage to the College. Dr. Hughes's successor has not yet been named.





MM. CHARCOT, AYEN, AND SAPPEY are candidates for the chair in the Medical Section of the Paris Academy of Sciences, left vacant by the death of Baron Cloquet. M. Jules Guérin, who was supported by a very respectable minority at a former election, has not yet sent in his application.

AT Glasgow, the winter session of the medical schools of the University, of the Royal Infirmary, and Anderson's College were opened on the 30th ult., when inaugural addresses were delivered by Prof. Young at the University, Dr. James Stirton at the Royal Infirmary, and Dr. A. Wallace at Anderson's College.

THE first meeting this session of the Epidemiological Society of London will be held in the Council Room of University College, on Wednesday, November 7, at 8 p.m. The President, Dr. Norman Chevers, C.I.E., will deliver an inaugural address on the subject of "Medico-Topographical and Health Histories for Districts and Towns," which will appear in full in our next issue.

IN our number for August 18, p. 191, we gave an account of Prof. Tarnier's remarkable case of ectopia of the heart, read at the Academy of Medicine, and referred to a committee of which M. Maury was the reporter. The *Bulletin* of the Academy for October 16 contains a long report from this observer, giving a detailed description of his investigation of the case, accompanied by numerous traces.

WE regret to learn that Sir Prescott Hewett has retired from practice—a step which will no doubt be felt as a great loss not only in the profession, but also amongst the general public. His surgical skill, straightforwardness, and kindness of manner endeared him and gave confidence to all with whom he met. It is satisfactory to hear that his retirement is not due to ill-health, and we trust that he may have long life and health to enjoy his well-earned rest from the toils of an arduous profession.

IT is with regret that we have to report the serious illness of Dr. Charteris, Professor of Materia Medica in Glasgow University. At the outset it was hoped that it would be of short duration, but this hope has not been realised. The Senatus Academicus have deemed it advisable to grant him six months' leave, at the end of which time it is trusted that he will have regained his health. In the meantime his assistant, Dr. Alexander Napier, has been requested by the Senatus to deliver the lectures during the winter session.

AT the meeting of the St. Pancras Vestry held on Wednesday afternoon, Mr. Robinson, the chairman of the Sanitary Committee, stated that he was glad to be able to inform the public that the epidemic had subsided, and that during the past week not a single case from St. Pancras had been admitted into the London Fever Hospital. All the circumstances of the St. Albans (Hertfordshire) cases had been investigated by the Medical Officer of Health, Dr. C. E. Saunders, who had been absent during the early part of Dr. Murphy's inquiry, but had since returned to town. Dr. Saunders, as the result of his investigations, states that he fully concurs in all the conclusions at which the Medical Officer of St. Pancras had arrived.

HOSPITAL SUNDAY AT BRIGHTON.—Last Sunday was set apart as Hospital Sunday in Brighton, and collections were taken in nearly sixty churches and chapels. This is the first time such an idea has been carried out, and the result, according to the returns received, was most encouraging.

## THE OPENING OF THE MEDICAL SESSION AT EDINBURGH.

THE winter session, both at the University and the School of Medicine, was opened last week, when several of the professors and lecturers gave introductory lectures. There was a crowded attendance in the Surgery Class-room to hear Prof. Chiene's opening address. At the outset he congratulated the students upon the fact that they were assembled in their own class-room. In teaching them, he said, he was not merely going to collect all that had been done and said by others, but he was going to try, after studying the subject, to give them, as far as he could, the best view with regard to each thing. Of course there was a danger in this, that he might be one-sided. He had to take care in trying to instil principles that they were self-evident and true. One of his endeavours would be to encourage the individuality of every student. The great danger, owing to the size of the school, was that individuality might be interfered with. If, instead of having hundreds, he had only a dozen of students, he could address all individually. That was impossible in a large school, and the difficulty could only be overcome by very efficient assistants, and the development, as far as possible, of the tutorial system of instruction. Prof. Chiene afterwards gave a short lecture on health and disease.

Prof. Rutherford delivered his opening address in the Physiology Class-room, on Human Life, its Condition, its Manifestation, its Beginning, and its End. The history of physiology, he said, was wrapped up in that of medicine, and he gave a brief outline of it from the days of Hippocrates. During Aristotle's time, Alexandria became the birthplace of physical science; and experimental science, starting from Alexandria, had enabled them to comprehend many great natural phenomena. But, even with that experience, it was difficult to find rulers who would support scientific research. In Germany there had been many Ptolemys, and the result was that Germany was at the head of science. In this country there were signs of awakening in this respect, but it came somewhat late, although not too late in the everlasting day of science. There was no difficulty in finding men, filled with the scientific spirit, who were willing to sacrifice the luxuries of life to the study of science for its own sake, but the difficulty was money. If they had not other means of support they must, as in Alexandria, live at the king's expense or upon the liberality of those who endowed research. Aristotle's chief claim to their gratitude was in founding a medical school at Alexandria, and in dissecting many animals and recording his observations. Passing over other discoverers, it became England's turn to initiate something, and, through the genius of Harvey, England contributed the greatest of all physiological discoveries—the truth as to the circulation of the blood. But there were anti-vivisectionists in those days who did not hesitate to use opprobrious epithets. Physiological knowledge had been obtained by the method of experiments on animals and on the human subject. The experimental method had far more power than the method of mere observation as a means of discovery. Animals were used for experiments which could not be conveniently performed on man. Of course, it must be admitted that there were many points of specific difference between man and other vertebrates, but the result of experiments on animals was an index of what might be expected to hold true in man. It was merely presumptive evidence until its truth had been proved, but so well known was the value of that presumptive evidence, that if anyone tried on a human being the effect of some new substance, he would be indicted for manslaughter if the patient died. That fact was perhaps as good an answer as any to the idle talk of some persons. He had no sympathy with those short-sighted people who imagined that when once a fact had been ascertained it was unnecessary to repeat the experiment. But, although they could give no countenance to such idle fancies, they must keep in mind that they had to deal with a delicate subject, and that it was desirable to avoid those experiments which involved pain unless they could be done under the influence of anæsthetics—a course resolved upon by physiologists before there was any talk about vivisection. In the class-



room the experiments for teaching purposes were all painless. The lecture was illustrated by experiments with frogs, as showing the effects produced by injury to particular parts of the system.

Prof. Greenfield, in opening his Pathology Class, remarked that the most recent pathological discovery—the cholera bacillus—was only a further advance in a course which could not long be delayed; and, however important in its results as to public health, it was not a revolution, but an evolution, of the science. Pathology, he went on to say, meant a science of disease; or, in other words, it was the science which sought to record and explain all that was made known about disease—its causes, processes, and results. Physiologists just now were rather fond of asserting that pathology was only a branch of physiology; but he held that physiology and pathology were sister sciences, both concerned in the study of biology, the one under normal, and the other under abnormal conditions. Prof. Greenfield then adverted at some length to the symptoms and causes of various diseases, remarking that a great part of the work of the students of pathology would consist in observations of simple facts, and indicated the course he proposed to follow during the session. He need scarcely enlarge, he said, upon the utility of the science. Whether now or in their future career, their usefulness must largely depend on their practical acquaintance with the laws of pathology; they must, in fact, if they were thoughtful physicians and surgeons, think and act according to their pathology. They would speak the language even if they did not understand the grammar, for pathology was the scientific basis of medical and surgical science. Except as related to pathology, of what service was physiology?

Prof. Grainger Stewart met his students for the first time since he was laid aside by illness early last winter session. He devoted the greater part of the hour to an exposition of the very valuable results which he had recently had such excellent opportunity of observing from the treatment of rheumatism followed at Aix-les-Bains. Commenting on the method of treatment there pursued, he said that the internal use of the waters was comparatively unimportant, the great reliance of the Aix doctors being placed upon the baths and the attendant system of shampooing and manipulation. The treatment was, he was convinced, of extraordinary value in the following rheumatic conditions:—(1) In the way of removing the joint thickenings and stiffenings which so often remained after attacks of acute rheumatism; (2) in chronic rheumatism, where a slow inflammatory action was going on in and around the joints, in removing the inflammatory products and diminishing the tendency to renewed inflammation; (3) in alleviating rheumatic affections of the muscles and fasciæ and nerve-sheaths, as in lumbago, pleurodynia, and sciatica; (4) in counteracting the wasting of muscles which so often occurred in connexion with rheumatic processes, by means of the skilled manipulation and shampooing, often along with electrical stimulation; and (5) in connexion with slight rheumatic threatenings, the use of the vapour-bath often sufficing to prevent further development of the disease. The facts as to these results were incontestable, but the explanation of their cause was rather more difficult. Probably, climate had something to do with it. The chemical activity of the water, which was not great, could not explain it; it must be the temperature of the water, which ranged from 112° to 114° Fahr., and the abundance of the supply, that were of special importance, combined with the skill of the bathmen and bathwomen. Lastly, the skill and attention of the doctors was beyond all praise. He had two suggestions to offer in the way of improvements. First, he should require a more simple and more wholesome dietary than was now got at some of the hotels. Were this done, one might confidently look for better and more speedy results. Next, he thought that a valuable improvement would be brought about by the establishment of Zander's machines for effecting passive and active movements in the joints, on the plan followed at Stockholm and in London. This plan, he was persuaded, would be advantageously followed at Aix-la-Chapelle, Vichy, Carlsbad, Buxton, Droitwich, Harrogate, and Bath. It would help the waters, and these, in turn, would render the Zander institutes more efficient than they were where no baths existed; and, combined, they would afford a far more satisfactory means than the profession now possessed of treating this condition.

Dr. Stevenson Macadam, in opening his course of instruction in the Surgeons' Hall, took up the subject of Sanitary Chemistry. The lecturer pointed out the great importance of sanitary science as peculiarly affecting the comfort and the happiness of the human race. Within the last few years, he said, sanitary science had made rapid progress, and the result was so marked—a decreased mortality everywhere following the introduction of sanitary reform—that the subject demanded, and to some extent was receiving, more attention than it ever received before. Dr. Macadam gave several striking illustrations of the beneficial results of the adoption of sanitary reform on scientific principles. Taking first the British Army, it had been ascertained that, before the introduction of sanitary reforms, the mortality in the infantry was, generally speaking, at the rate of 17·9 per 1000; after the introduction of sanitary reform it fell to 7·6 per 1000. In the same way the rate of mortality in the case of the Foot Guards had fallen from 20·4 per 1000 to 9·1; and in the case of the Royal Artillery, from 13·9 per 1000 to 8·0 per 1000. Taking towns, it had been ascertained that the average rate of mortality was about 28 per 1000; but after the introduction of sanitary reform that rate came down to 21 per 1000. In other words, the difference lay in the proportion of four to three; for four deaths that occurred before sanitary science came to be carried out in practice, three occurred after that. Dr. Macadam mentioned one curious fact brought out by the observation of the French army authorities. At one time there was what might be called an enormous mortality amongst the French cavalry horses; the rate was as high as from 180 to 197 per 1000 every year; various diseases were constantly breaking out. A change was introduced: better stables were kept; more attention came to be paid to sanitary conditions. The result was that the rate of mortality was brought down to 68 per 1000. And during the Italian war, when the horses had little shelter—covered occasionally in inclement weather, but always in possession of plenty of fresh air,—the rate of mortality fell to the wonderfully low rate of one or two per 1000. All these facts were important as showing that increased attention to sanitary conditions must carry with it an enhancement of the comfort and the welfare of man. This led up to the consideration of some points connected with sanitary chemistry. Dr. Macadam pointed out the supreme importance to man of pure air, and, therefore, the importance of air as a factor in sanitary matters. The water-supply of a house was comprehended in a comparatively small capacity, and the solid food a man required might be measured by handfuls; but of air every man consumed 1,000,000 cubic inches daily, or 500 cubic feet, or, to measure it in another way, 3000 gallons. The meaning of this was that a man required to inhale two gallons of air every minute he lived. This air was never free from dust—the haze of the atmosphere and minute particles of organic matter,—and Dr. Macadam, by a series of interesting experiments, proceeded to show how the presence of particles or impurities can with ease and certainty be demonstrated. Other experiments followed, the object being to show clearly the means by which the presence of organised particles and poisonous gases may be detected in the air, and to impress on the students the fact that the exhalations of man were always charged with the poison which was thrown off by a burning candle—carbonic acid.

The Chemistry Class was opened by Prof. Crum Brown within the New University Buildings. There was a large attendance of students, the spacious class-room being crowded in every part. The Professor said he felt it would be improper to enter upon their work in this beautiful building without in some way expressing their obligation to those who had provided it, and their hope—their determination, as far as it depended on them—that the founders' intention should be carried out. That intention was, that there medicine and the sciences upon which medicine depended should be studied in the most thorough, the most practical, the most successful manner. They naturally looked back on the old site which they had left, and thought of the memories associated with it and with the two chemical class-rooms which one after the other were erected there. There lectured Cullen, the wise and scientific physician; Black, the genius to whom in great part they owed the revolution which made chemistry what it now was; Hope, the clear and elegant lecturer; the learned Gregory; and Playfair, who, by his practical ability and remarkable organising power, created a good teaching laboratory under the most unfavourable



conditions. When the University buildings which they had just left began to be occupied, there was, as now, a crowd of medical students—then, as now, gathered from all parts of the world. That was a busy time in the medical schools. All Europe was in arms, and pestilence followed in the footsteps of war. Army and navy surgeons fell fast, and the supply scarcely kept pace with the demand. Let them hope that it might be long before such a cause of prosperity recurred. After alluding to recent changes in the constitution of the University, Dr. Crum Brown went on to say that though a good constitution was desirable, there was something far more important. That was the real life of the University—the work done in it. In this there had been a change deeper and wider than any modification of the form of government. Formerly the teaching in their Faculty was carried on exclusively by means of lectures. Gradually and slowly the change was made. The removal of difficulties created by law rendered the class of practical anatomy possible; practical teaching followed, until now there was no branch of the medical curriculum in which a student could not obtain practical instruction, and gain real personal acquaintance with the things about which he heard in the lecture-room. There were some who spoke of practical classes as a new burden laid on students, retarding their progress, and making their work more difficult. He would remind some of those objectors to the new modes of study that what a medical student required was not so much an extensive as a sound knowledge of the fundamental sciences. Practical classes did not increase their work, but rendered it easier. In conclusion, the Professor briefly referred to the application of the principles of chemistry to medicine and other arts.

In opening his Class of Materia Medica in the New University Buildings, Prof. T. R. Fraser remarked that he joined with his colleagues, the greater number of whom were already in possession of their new rooms and laboratories, in expressing satisfaction with the beauty and excellence of their new abode. He joined with them also in expressing the fullest appreciation of the public-spirited liberality, the intelligent conception of the value and present scope of medical education, and the conspicuous success in meeting their requirements, which had resulted in the completion of one of the most important undertakings in the city, and in the history of medical progress and education. In these buildings there would be preserved the results of experience and observation, destined, it was hoped, to be imparted to many generations of disciples. The subject to which that lecture-theatre and adjoining rooms were henceforth to be devoted enjoyed the singular privilege that, although it was originated more than 2000 years ago, its name had remained unchanged, and the acceptance of it had received no important modification to the present time. After adverting to the early history of materia medica, Prof. Fraser gave a graphic sketch of the progress it had made as a branch of medical education in Edinburgh. At length a science of pharmacology had been founded, and its importance as a branch of medicine was for the first time definitely acknowledged in the University in the arrangements of that department. At present the art of medicine, the practice of physic in its practical workings, was only loosely associated with science. It was protected from crude fallacies by contact here and there with a relatively small number of ascertained facts which controlled and guided its doings—much as the two parallel walls of a highway controlled the erratic course of an inebriate, whose progress would be altogether impossible without their assistance. In conclusion, the learned Professor referred to the increased provision which had been made for the general teaching and study of materia medica in its several branches, which he believed to be in every respect worthy of the educational reputation of the University.

UNIVERSITY OF CAMBRIDGE.—The examiners for medical and surgical degrees for the current academical year are:—First M.B.: Dr. S. H. Vines, Prof. Garnett, and Mr. Pattison Muir. Second M.B.: Prof. Paget, Prof. Milnes Marshall, Dr. Gaskell, and Mr. Shuter. Third M.B.: Prof. Joseph Lister, Mr. Davies-Colley, Dr. Matthews Duncan, Prof. Paget, Dr. O. Sturges, and Dr. Handfield Jones. B.C. and M.C.: Prof. Humphry, Prof. Joseph Lister, and Mr. Davies-Colley. M.D.: Prof. Paget and Dr. Reginald Thompson.

## ABSTRACTS AND EXTRACTS.

### CHLORATE OF POTASH POISONING.

DRS. BROESICKE AND SCHADEWALD report a case (*Berliner Klinische Wochenschrift*, No. 42, 1883) of rapid poisoning by chlorate of potash in a healthy young man, aged twenty-two. After excessive and incautious gargling with a strong solution for some trifling throat affection, in the course of which he had swallowed a considerable quantity, the patient complained on the following day of sickness and of pain in the sides and loins. Signs of acute gastritis rapidly followed; nausea and severe pain in the splenic region were the chief symptoms. Some enlargement of the spleen could be detected. Heart and lungs were normal; but distinct cyanosis, especially of lips and extremities, was present. Two days after the poisoning, severe vomiting set in, and lasted to the end. Icterus followed, but disappeared before death. On the fourth day, severe epistaxis occurred; extreme præcordial anxiety followed, but without any notable signs in heart or lungs; and some rigidity of the muscles of the extremities was observed. Death took place on the eighth day. Throughout the whole period of illness hardly any urine was passed; the temperature remained a little below the normal; the pulse, however, was of fair strength. The post-mortem examination, made four days after death, revealed a brown discolouration of the blood in the vessels. This blood, however, gave the normal appearance to the spectroscope. The spleen was very greatly enlarged, brownish in places, the capsule soft. The kidneys were also enlarged, the cortical portions expanded and of a dirty green colour. Microscopically, the straight and convoluted tubules were found filled with numerous brownish, irregular-shaped masses of hæmoglobin. The stomach showed acute and chronic catarrh, with a few ecchymoses. The large intestine and rectum contained a large quantity of brownish, watery fluid, and the mucous membrane appeared cedematous. Other organs normal.

### THE CONTRACTIONS OF THE UTERUS.

A RECENT number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a paper by Dr. Richard Frommel, of Munich, which we may briefly mention, as it contains an account of an investigation carried on in a method which scientific workers in this country are precluded from using—viz., by experiments on living animals. Dr. Frommel's object was to throw light on the physiology of uterine contraction. He employed an elaborate apparatus, which it would take up too much space for us to describe, but the essential parts of which were tubes inserted into the uterine cornua of rabbits, and connected with a manometer and a kymograph, so that every contraction of the uterus was at once registered in a graphic manner. With these were combined various other measures, having for their object to prevent accidental conditions, such as muscular action, cold, etc., from affecting the uterus, and so vitiating the experiments. The chief points of interest in the results obtained by Dr. Frommel are these:—First, that in rabbits spontaneous rhythmical contractions of the uterus occur. (Similar contractions, most students are aware, have been pointed out as occurring in pregnant women by Dr. Braxton Hicks.) These contractions are stronger and more regular in proportion to the degree of development of the uterus, being strongest in pregnancy, least in the infantile uterus. Lowering of the body-heat causes the contractions to occur more slowly, but does not lessen their energy. Elevation of the temperature at first accelerates their rhythm, but a fever temperature causes them to cease altogether. Regular uterine contraction is therefore dependent upon a normal condition of the body-heat. Alterations in the circulation also powerfully affect these contractions. They are abolished quickly by compression of the aorta, and more slowly by compression of the vena cava. They are not dependent upon any nervous centre outside the uterus, the ganglia within the organ itself supplying the nervous force for their production, although they may be affected by nervous influences coming from other centres, the uterine action in this respect being analogous to that of the heart.



## "THE IMPROVED CÆSARIAN SECTION."

UNDER this title the *Philadelphia Med. News* for August 4 contains an article upon a case which came under the care of Dr. Anna Broomall, Professor of Obstetrics in the Women's Medical Hospital. A negress, twenty-two years of age, was admitted after being in labour for twenty-four hours, during which the forceps had been vigorously employed. It was found that she had a conjugata vera of only two inches and seven-tenths, a very exaggerated inclination of the pelvis also increasing the obstruction. The Cæsarian operation was resolved on, as the child was still living, and the mother's condition not hopeless, although her temperature was 102°, and her pulse 180.

"The main important feature was the adoption of the principle of the Müller-Porro operation, viz., the turning out of the uterus from the abdominal cavity, keeping the edges of the incision closely pressed against the uterine wall, and, before incising the uterus, making constriction of the cervix to prevent hæmorrhage. This plan, first suggested by Litzmann of Kiel, has been carried out heretofore in a few cases only, and without success, by placing a constricting band around the cervix, either a wire loop, or, as urged by Garrigues, an Esmarch tube, tightened up until arrest of circulation is effected. Dr. Broomall, however, modified this part of the operation in having the cervix grasped by the hand of an assistant, and securely compressed until the uterine wound was closed by sutures. The hand was applied with its palmar surface upon the lower anterior face of the uterus, with the thumb and fingers extended, with the commissure looking downwards, then slid rapidly down until the soft tissue of the cervix could be grasped in its embrace—the head being gently pressed upwards till the cervical tissues were entirely isolated from it. The softness of the cervical walls rendered an efficient grasp quite easy, and the circulation was absolutely controlled, there being apparently not a drachm of blood lost from the incision in the uterus. The placenta was implanted anteriorly, and had to be cut through, causing, of course, the loss of its contained blood. The advantage of this method of constriction was seen to be immense. First, there is great saving of time, and that too at a period of the operation when every moment tells upon the vitality of the fœtus. The difficulty of passing a cord or ligature of any kind over and behind the uterine body, carrying it down between the womb and the edges of the incision—which have to be kept closely in contact to prevent the escape of the intestines,—and the care necessary to prevent loops of intestine and portions of omentum being carried down and grasped by the ligature, contused and perhaps permanently injured by the rough constriction, constitutes one of the serious delays in Porro's operation; and the manipulation necessitated by it, disturbing the placental circulation, involves great danger to the child. With the manual grasp, the fingers being gently slid around the cervix from in front, and kept close to the uterine wall, such precautions are unnecessary. In Dr. Broomall's case it was less than fifteen minutes from the time the peritoneal cavity was opened until the uterine wound was completely closed, and in ten minutes more the abdominal walls were closed also, making only twenty-five minutes in all that the abdomen was open. Secondly, a very important gain by this procedure is in the diminished risk of injury of the uterine tissues or the broad ligament and its appendages by their grasp in the soft hand, with its well-regulated and intelligent pressure, in contrast with their constriction by any mere machine. The hand would not be wearied in so short a time, but, if it should become so, it could easily be replaced by the other, with scarcely perceptible interval of grasp. . . . The advantages of this mode of constriction, and the facility with which it can be performed, recommend the plan of Dr. Broomall as a very important advance in the improved Cæsarian operation. The objection urged by Carl Braun von Fernwald to the use of the ligature, on the ground of the head being sometimes impacted in the brim (a condition certainly extremely rare in a pelvis of two inches and a half), would not be applicable to the manual constriction, as the hand with its palmar surface could efficiently compress the cervical tissues against the head itself, quietly raising it upwards till it had cleared the brim, the cervix being stretched, and thus easily and effectually grasped."

The condition of the woman previously, and at the time of the operation, rendered its successful issue very unlikely, and, in fact, she died in thirty-six hours; but the autopsy showed complete union of the uterine wound throughout, and the abdominal cavity was free from all traces of blood. There was no inflammatory action at the surface of the uterus; but the intestines in the upper part of the abdomen, above the uterus, were largely agglutinated by lymph. The child lived thirty-two hours, and was found to have a large clot beneath the membrane of the brain, with fracture of the right parietal from the compression at the pelvic brim.

## REVIEWS AND NOTICES OF BOOKS.

*Note sur Vingt-deux Opérations de Goître.* Par JACQUES LOUIS REVERDIN, Professeur à la Faculté de Médecine de Genève, et AUGUSTE REVERDIN, ancien Assistant de Clinique Chirurgicale à Strasbourg. Avec trois planches phototypiques. Genève: H. Georg, Libraire Editeur, Libraire de l'Université. 1883.

*An Account of Twenty-two Operations for Goître.* With three photographic plates. Pp. 130.

IN this pamphlet the authors publish their experience of the surgical treatment of goître. They performed twenty-two operations on twenty-one patients, of whom nine were male and twelve female, with the result of nineteen recoveries and two deaths. Another case died two months after the operation, from pneumonia, which had no connexion with the original disease or the operation. All the cases are fully reported, and the symptoms, operations, and immediate and subsequent results are given with minute detail. The authors do not recommend anæsthetics for the operation. Although they in fourteen cases administered chloroform or ether without any bad result, still in their opinion the risk of subsequent vomiting is very serious, and in seven cases in which they did not use anæsthetics the patients did not appear to suffer pain after the cutaneous incisions had been made, while, if dyspnœa supervene, consciousness on the part of the patient is very advantageous. As to the nature of the operation, total extirpation of the gland insures immunity from any recurrence of the disease, and leaves a wound which, though large, is composed of homologous tissues and heals readily. But the operation is tedious, the hæmorrhage considerable, and very important structures are exposed and endangered. Partial removal of the gland is free from these objections, but leaves the patient liable to recurrence of the disease. They classify goîtres into parenchymatous, lobulated, and cystic. For the first of these, total extirpation is requisite; for the lobulated form, partial removal, if possible by enucleation, will suffice; and for unilocular cysts, incision with removal of part of the cyst and suture of the remainder to the skin produces good results. The definiteness of these directions is, however, marred by the admission that a goître is rarely simple, but usually a compound of these varieties. Hæmorrhage and dyspnœa are the chief difficulties in the performance of the operation. In one case the authors had to apply eighty ligatures; and in another, although they commenced with a supply of forty compression forceps, they had to suspend the dissection of the tumour in order to ligature vessels, and so secure a continued supply of forceps. With increasing experience, however, they found that by cutting rapidly down on the large vessels which enter the deep surface of the gland, and by securing these with double ligatures and dividing between the ligatures, the loss of blood was greatly diminished. Listerism was carefully employed in all the cases, but a curious difference was observed between the cases treated in the author's private clinique and those operated on in the hospital. Of the former, nearly all healed by first intention, with an average duration of treatment of seven days, and a mean temperature of 38.1° C.; while in the hospital cases all suppurated, the average duration of treatment was twenty-seven days, and the mean temperature 39.6° C. As equal precautions were taken in all the cases, the authors suggest that this difference must have been caused by the unfavourable influence of the hospital on the general health of the patients. This explanation, if correct, is not very flattering to the condition of the hospital. After the operation, phonation and deglutition were usually affected. In most cases the



voice was hoarse, and in one case the laryngoscope disclosed an absence of parallelism in the vocal cords. In three cases aphonia resulted, which persisted in one case for a few days, in the second for five weeks, and in the third for more than six months. All the patients experienced difficulty in swallowing for from ten to fifteen days after the operation. These symptoms were partly due to the inevitable disturbance of the parts during the operation; but branches of the recurrent laryngeal nerves must also have been injured. In three cases tetany was observed. These were all females. This accords with Billroth's experience, who, in sixty-eight operations for goitre, had ten cases of tetany—all in females. But Kocher has observed it once in a young boy, from whom the thyroid gland was removed for goitre. This affection has hitherto been observed only in cases of total extirpation of the gland; and the authors, after full consideration of all possible causes for it, suggest that it is most probably a reflex phenomenon due to injury of branches of the sympathetic cord. It is an unfavourable symptom, as one of these three cases died, and of Billroth's ten cases two died. In some cases, two or three months after the operation, when the patients had apparently completely recovered, further symptoms appeared. The patients complained of fatigue after slight exertion, and of a sensation of awkwardness and weakness in the movements of the upper extremities. A hairdresser was unable to use his scissors, a woman experienced difficulty in doing crochet-work, and the husband of another patient complained that his wife broke a great quantity of crockery. In two other cases the trouble was more marked on the right side. The patients answered questions slowly and with hesitation, but correctly. The intellect did not appear to be impaired, and the authors compare these cases to machinery in which, while the works are perfect, the wheels have become clogged with oil. The only objective symptoms were puffiness of the face and extremities, which, however, did not pit on pressure, and an alteration in the complexion. The patients acquired a whitish-yellow colour, not that of anæmia or albuminuria, but similar to what is seen in some cretins. These symptoms occurred only in cases of complete extirpation of the gland, and not in all of those. Of seventeen cases in which the authors removed the entire gland, two died from the operation, one two months later from pneumonia, and two could not be traced. Of the rest, seven never suffered any inconvenience. If, therefore, these symptoms result from the absence of the gland, it would seem that some other organ can vicariously perform the functions of the thyroid gland. These symptoms closely resemble some of those noticed in cases of myxœdema which have been recorded by Ord, Hadden, and others, and the similarity is especially noteworthy from the atrophy of the thyroid gland which has been observed in these cases. Finally, the authors think that the removal of goitre merely for æsthetic reasons is not justifiable, and that if the tumour increase rapidly or cause any respiratory trouble, partial removal should be first tried, and complete extirpation only performed when everything else has failed to give relief.

The pamphlet is a very valuable contribution to our knowledge of the operative treatment of goitre, and the cases are described and discussed with most commendable candour and thoroughness.

*The Principles and Practice of Medical Jurisprudence.* By the late ALFRED SWAINE TAYLOR, M.D., F.R.S. Third Edition, edited by THOMAS STEVENSON, M.D. London: J. and A. Churchill. 1883. Two vols. 8vo.

TEN years have elapsed since the late Dr. Taylor brought out the second edition of this his *magnum opus*, and during that period the increase in our knowledge and the accumulation of facts have not been less rapid in regard to medical jurisprudence than in the other branches of medical study. It might have been expected, therefore, that the new edition would have exceeded its predecessor in bulk as much as that one did its forerunner. Such, however, is not the case: by means of judicious pruning, and the substitution of new matter for old, Dr. Stevenson has contrived to keep the two volumes of a convenient size. A comparison of this edition with the last will show how very thoroughly the work of revision has been carried out: there is not a section, and indeed scarcely a page, but bears some mark of Dr. Stevenson's work.

Of the many criminal trials, important in a medico-legal

point of view, that have taken place since the last edition appeared, a brief account is in most instances given. We think the Lamson case might have been detailed a little more fully, for although the facts are fresh in everybody's mind at present, still in a few years they will be so no longer, and the case is one in some respects without a parallel in our country. The Tichborne case has been concluded since the last volume, and it is no longer necessary to use any reserve in pointing out the conclusive evidence furnished against the claimant by the absence of certain scars and the presence of others. Reports of the Bravo case and the trial of the Stauntons are amongst the additions, as well as the recent trial of the brothers Peltzer for the murder of Mr. Bernays. We fail to find any mention, however, of a important case of strychnia-poisoning which occurred about two years ago at Sheffield, or of the murder of President Garfield by Guiteau—an omission the more extraordinary, as this case is important both from the nature of the wound and the length of time the patient survived, and also from the kind of evidence used to support the plea of insanity by the prisoner.

The chapter on Ptomaines is certainly one of the chief additions to the work, and it contains the most recently approved views on the subject. Possibly, many of our readers had never heard of cadaveric alkaloids until the trial of Lamson, when an attempt was made on the part of the defence to show that the alkaloid obtained by Dr. Stevenson from some of the viscera and urine of the deceased was probably the result of putrefactive changes—an attempt which failed most signally. The latest test for the presence of a ptomaine is based on the reduction of silver bromide. "If a piece of photographic paper imbued with the bromide be written upon with a quill pen dipped in a solution of the base (i.e., containing the supposed alkaloid), and the paper be placed in a dark room, and then washed successively with sodium hyposulphite and water, the characters traced upon the paper will be made manifest by reduction which has occurred if a ptomaine is present." By taking especial precautions in preparing and separating the alkaloidal extracts by Stas's process, Dr. Stevenson has been able to convince himself that "the existence of poisonous cadaveric alkaloids in human viscera, even when putrid and diseased, is, to say the least, very rare." Dr. Stevenson deserves the thanks of the profession for the admirable manner in which he has discharged his task.

*Sewage Disposal: for the Guidance of Sanitary Authorities.*

By HENRY ROBINSON, C.E., F.G.S. London: E. and F. N. Spon. Second Edition. 1882. Small 8vo, pp. 86.

THIS little book needs no commendation from us, but we feel it a duty we owe to our readers to call attention to its value. Absolutely free from padding, with scarce a sentence or word that could be spared, it gives, in language as clear as it is concise, the most recent state of our knowledge on the all-important, the burning question of the disposal of sewage in the face of injunctions against the pollution of rivers. Mr. Robinson does not encumber his pages with descriptions of the works or machinery employed in the several systems, for these can be obtained from the engineers of each when the local authorities, guided by the data here supplied, have decided on the particular method best adapted to their circumstances. Each of the most successful plans of treatment, by irrigation, filtration, chemicals, or a combination of the last two, is discussed in its sanitary, economic, and financial aspects, with numerous comparative analyses of the several sewages and effluents. The author everywhere insists on the necessity of dismissing all thoughts of making sewage disposal a commercial question, barring only exceptional cases of sewage farming. Pecuniary considerations, as we have always urged, must be postponed to sanitary. The real question is, how to dispose of the sewage at the least possible cost, and to obtain an effluent that may safely be passed into natural watercourses which may at other points be used as sources of water-supply. If the sewage can be utilised, whether for crops or for cement, so as to reduce the expense, so much the better; but if not, it is a question of how it can be best and at the least cost destroyed: all idea of profit being in either case out of place. There is a fallacy prevalent with regard to irrigation that Mr. Robinson effectually explodes, viz., that land can be permanently enriched and its value improved thereby. The organic matter of the sewage is oxidised in



the pervious soil, and all in excess of what the vegetation can assimilate is thus destroyed, instead of being, as many persons imagine, stored up. If not destroyed it escapes in the effluent, and the object of the whole scheme is defeated. Soil that has been for years under irrigation contains no more organic matter than it did at first. Another point which strikes us as not generally known, though of great practical importance, is the action of salt water on sewage, precipitating organic matters which would otherwise have remained in suspension, and forming an adhesive and putrescent ooze along the foreshore. Such is the mud of the estuaries of the Thames and Medway, now exercising the minds of the Thames Conservancy and the Metropolitan Board of Works, so much used for making Portland cement, and which is imitated in the system of General Scott.

To analyse the contents of this work, highly concentrated as they are, would be an impossibility: suffice it to say, once more, that everything that a sanitary authority can need to guide them in the selection of that one of the rival methods best suited to their particular case, whatever the quantity and quality of their sewage, the extent and character of the land at their disposal, or if there be none available, will be found in this little book so plainly that he who runs may read.

*The Dispensatory of the United States of America.* By Dr. GEORGE B. WOOD and Dr. FRANKLIN BACHE. Fifteenth Edition, rearranged, thoroughly revised, and largely rewritten, with illustrations, by H. C. Wood, M.D., Joseph P. Remington, Ph.G., and Samuel P. Sadtler, Ph.D., F.C.S. Philadelphia: J. P. Lippincott and Co. London: 16, Southampton-street, Strand. 1883. Pp. 1928.

THE simple fact that this large volume has reached a fifteenth edition is sufficient evidence that it meets a widely felt want. We have no hesitation in saying more than this: that it is one of the best treatises extant on pharmacy and therapeutics. The information given is full, but is not a mere collection of cuttings from miscellaneous sources more or less trustworthy. On the contrary, the statements of different writers on therapeutic subjects are weighed, sifted, and digested, as well as checked by the large experience of the authors themselves. The pharmaceutical sections are very clear, and their utility is not limited to American readers; for in most instances in which the American and British preparations differ, both are given, and the reason of the difference is explained. We know few, if any, works that may more safely be consulted than the one before us.

## GENERAL CORRESPONDENCE.

### COMPENSATION AFTER RAILWAY ACCIDENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—You conclude your editorial article (October 27) on "Compensation after Railway Accident" with the remark that "to arrive as nearly as possible at the truth is only to be attained by the employment of skilful and well-informed experts, who, on whatever side they may be called, will approach the question as they would a clinical case or scientific problem, and, without bias or interested motive, give an opinion strictly in accordance with the facts before them." In these words you sum up the whole desideratum in these unsatisfactory, and too often demoralising, cases. My opportunities of familiarising myself with this class of injuries has now extended over some years; and I speak of the cases as demoralising, because the mode in which they are conducted is such as to tempt the public to impose on the companies, and to enlist witnesses to support claims which ought never to have been made.

Of genuine cases of shock from railway collision, my experience has taught me that only a small proportion manifest symptoms which justify the belief that organic change in the spinal cord has resulted. Indeed, I have found latterly that the theory of spinal concussion has yielded very much to that of "general nervous shock," which possesses the required amount of indefiniteness to supersede the disagreeable necessity of special pathological discussions.

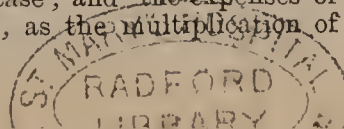
The railway companies are at great disadvantage, as their medical witnesses are required to prove a negative; and the temptation to exaggeration or fraud is favoured by the

nature of the symptoms, which are commonly of a character to elude the test of observation, being purely subjective; and they are now so popularly known that they can be readily assumed by the designing, or imagined by the initiated. Any and every symptom the claimant fancies he has or really suffers from, whatever the cause, is attributed to this "nervous shock"; and the medical witness for the defence is asked whether these symptoms, as a consequence of railway collision, are impossible. Of course he cannot answer in the affirmative, and the counsel for the plaintiff does not fail to make use of such admission in his address to the jury. I do not deny that such shock, if genuine, may entail consequences which endure for some time; but in a large proportion of these cases the concussion produces only temporary inconvenience and functional disturbance—a condition which would speedily disappear if the patient were encouraged, and had not the temptation of gain in prospect. But the hurt was received on the premises of a railway company—it matters little whether on the line or elsewhere. A claim has to be made for compensation; a solicitor is consulted or tenders his services, and medical advice is sought. Then the claimant is bidden to abstain from all occupation, to keep quiet, to avoid all mental exercise—in short, to nurse his symptoms until he becomes moping, and fancies himself really incapable of any exertion; suffering, not unnaturally, from dyspepsia and its attendant miseries of disturbed rest, dreaming, headache, and nervous irritability, which are all ascribed to the "nervous shock," though really attributable to eating and drinking freely (extra nourishment is a common item in the claims) whilst all bodily and mental exercise is strictly prohibited.

Under these circumstances, what chance has the railway company of a fair hearing before a jury? Their medical witnesses may feel convinced, from their own observation and from collateral evidence, that great exaggeration or even pure imposition is being practised. They are even offered the opportunity, in examination or cross-examination, of saying so; but if they yield to the temptation, it is with the certain result of exciting the assumed indignation of the opposing counsel, and the sympathy of the jury. They may, often and with perfect truth, ascribe the nervous symptoms complained of to hysteria—a noxious weed which thrives in the hot-bed of sympathy and enforced idleness. But the plea rarely avails; for juries do not appreciate this term in its masculine application, and generally regard the suggestion as an unworthy loop-hole framed for the escape of the railway company from the penalty of heavy damages.

That these things are so is well known to those accustomed to deal with such cases; and it is proverbial how speedily all the symptoms disappear as soon as the compensation is obtained, though they may have lingered on for months, or even one or two years, with little or no variation. It need, therefore, scarcely excite surprise that railway companies yield to demands which are made on them, in order to save the expense of litigation with the prospect, in most instances, of an adverse verdict, thereby encouraging claims which they believe to be greatly exaggerated if not inadmissible.

I now take up the subject where you left it. Is there any remedy for this growing evil?—an evil which constantly places members of the medical profession in an antagonism which is painful and humiliating, and defeats the ends of justice, by presenting to the jury such conflicting evidence that they feel the only solution to their perplexity is a verdict for the plaintiff, on the assumption that his statement is true, and must be accepted because the medical witnesses for the company cannot *prove* its exaggeration or untruthfulness. I believe there is a remedy, and it is this:—A tribunal of qualified medical men (three would suffice) should be invested with power to take evidence, previous to the trial, respecting the nature of the injury sustained, and also to hear medical witnesses on either side; and their report on the case should be the only medical evidence admissible at the trial. The advantages of such an arrangement would be manifold. Many cases would be settled out of court; in such as went to trial the judge and jury would not be perplexed, but would be supplied with a trustworthy estimate of the real nature and extent of the personal damage sustained. The time of the court would be saved by the elimination of the chief source of entanglement in the case; and the expenses of the litigants would be curtailed, as the multiplication of





medical witnesses would be superfluous. Lastly, though not least importantly, genuine cases would have full justice meted out to them, whilst those which are fictitious would be relinquished, and reasonable compensation would be accepted for a bruised arm or broken shin, as the attempt to graft thereon a variety of imaginary ailments from "nervous shock" would not be countenanced by such a tribunal as I suggest.

I am, &c.,

F. LE GROS CLARK.

## REPORTS OF SOCIETIES.

### THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 26.

Sir ANDREW CLARK, Bart., President, in the Chair.

THE PRESIDENT opened the meeting by presenting to the Society the new volume of its *Transactions*, remarking upon the excellence of the contents, and calling attention to the new feature which it presents in the descriptions of the living specimens exhibited during the year.

Dr. CHARLTON BASTIAN read the following papers:—

#### I.—CASE OF APOPLEXY IN A BOY AGED FIFTEEN—INTRAVENTRICULAR HÆMORRHAGE, CONVULSIONS, AND DEATH IN FOUR HOURS.

Wm. N., a healthy-looking boy, aged fifteen, admitted into University College Hospital at 7 p.m. on June 14, 1883. Three years ago, according to his parents' account, after a "school treat," he, on the same night, became violently convulsed, and afterwards screamed for two or three hours. This attack was attributed to "sun-stroke," probably with no sufficient reason. The boy is said to have speedily resumed his ordinary healthy condition. Three weeks before his death he complained of pain in his head, which soon passed off after taking a mild aperient. At 1.30 p.m. on the day of his death he ate a good dinner, and seemed in perfect health. About 5 p.m., after some slight exertion (he was on horseback at the time), he complained of pain in his head, and almost at once lost consciousness. He then became rigid, blue in the face, and, from the accounts that were given, apparently convulsed. He remained insensible, vomited two or three times, and was brought to the hospital about 7 p.m. There was no history of a blow or fall upon the head. A bruit was heard at the apex of the heart, though there was no history of rheumatic or scarlet fever. On admission the patient was in a condition of stupor, though he put out his tongue and opened his eyes when told to do so in a loud voice. The tongue deviated slightly to the left side. The pupils were equal, of medium size, and sluggish. He moved the right arm and leg, the left scarcely at all. Face somewhat flushed. Pulse 84, regular; respirations 18 per minute; temperature in rectum 98.4°. About fifteen minutes after admission the boy vomited some undigested food. A little later he became rigid, and the face and extremities on both sides were clonically convulsed for one to two minutes. During the brief remainder of his life (an hour and three quarters) he continued unconscious, and became convulsed at short intervals. His pupils were now, and remained till the end, small and quite insensitive to light. Breathing at this time irregular and sighing. Pulse at the same time about 40, very slow, irregular, and intermittent. At first the convulsions just referred to recurred about every five minutes. During these attacks there was rigidity of both legs and arms, as well as slight opisthotonos. The intervals between the paroxysms gradually diminished from five to two minutes. About fifteen minutes after the injection of a solution containing thirty grains of chloral into the rectum the convulsive paroxysms diminished, and eventually ceased. The breathing, however, still continued of the same irregular character, though the pulse became frequent and regular. Mucous râles soon became audible all over the front of the chest, but up to the few moments immediately preceding his death the patient's lips were of good colour, his pulse was frequent (120), but of fair quality. Suddenly he became livid, and large râles were audible in the trachea. Death occurred in the course of a few minutes more. The rectal temperature had been taken on three occasions. Soon after admission it was 98.4°, but before death it had risen to 99°. At the autopsy, seventeen

hours after death, nothing unnatural was presented by the dura mater or arachnoid, though the convolutions over the vertex were somewhat flattened. A sub-arachnoid extravasation of blood was found at the base, extending from the optic commissure backwards over and on each side of the pons and medulla, and thence upwards over the posterior border of the cerebellum. The upper parts of both cerebral hemispheres presented nothing unnatural, but about one ounce of blood was found in each lateral ventricle. The third and fourth ventricles were also full of blood-clot, and from the latter blood had evidently found its way out so as to produce the basal extravasation above referred to. In the nucleus lenticularis of the right corpus striatum another quite recent clot (about half an ounce) was found, from which a small laceration of brain-tissue opened a way for blood into the lateral ventricle. The brain-tissue immediately around the clot was broken up and lacerated. No other lesions were found. No aneurysms, large or small, were discovered after careful search. The great vessels at the base of the brain were healthy. The heart was of natural size. The free edge of the mitral valve was thickened, opaque, and distinctly nodular. Aortic valves healthy. Both lungs were large, and semi-solid throughout, the increased consistence being apparently due to extreme congestion and œdema. This condition was most marked in the upper two-thirds of the left lung. Other organs healthy. The occurrence of a rapidly fatal apoplexy from intra-ventricular hæmorrhage was a very rare event in one so young as the boy in question. No distinct exciting cause seems to have existed, nor could any immediately determining cause be discovered. No aneurysm was found, there was no vascular infiltrating new growth, nor was there any appreciable disease of the great vessels at the base of the brain. There was no evidence to show that embolism had occurred as the first event leading on to hæmorrhage. The thickening of the edge of the mitral valve was chronic, and there were no vegetations from which embolic masses could have been derived, as in a case recorded in the *Lancet* of June 16, 1883, page 1042, where embolism, and adjacent hæmorrhage, and subsequently fatal intra-ventricular hæmorrhage, occurred in rapid succession in a girl, also aged fifteen years. It seems highly probable that at the time of his admission into the hospital the patient was suffering from hæmorrhage into the right corpus striatum, that soon after admission (possibly as a consequence of the act of vomiting) a further bleeding began to take place into the ventricles, with ultimate distension of the fourth ventricle and extravasation of blood over the base of the brain. This latter occurrence may have corresponded with the sudden failure of pulse and respiration immediately preceding death. The amount of blood extravasated was here much smaller than in the case of intra-ventricular hæmorrhage previously detailed. The rate at which the blood was poured out was probably also much slower. Hence in the boy there were more signs of irritation of the ventricles, whilst those of shock were far less marked. Tonic convulsions were frequent in this case, and absent in the former. The rectal temperature in the boy had probably never been reduced to a very low point, seeing that at the expiration of two hours from the onset of the attack it stood at 98.4°. Subsequently the tendency to lowering of temperature from a continuance of the cerebral hæmorrhage was probably rather more than antagonised by the tendency to elevation of temperature due to the frequently recurring convulsions, seeing that just before death it stood at 99°.

#### II.—CASE OF RUPTURE OF A LARGE ANEURYSM IN THE RIGHT CORPUS STRIATUM, WITH INTRA-VENTRICULAR HÆMORRHAGE, AND EXTREME LOWERING OF RECTAL TEMPERATURE.

Thomas R., aged sixty-seven, a man of intemperate habits, was intoxicated on the night of October 18, 1881. The following morning he left his house sober at 7 a.m., and one hour afterwards was brought to University College Hospital in an insensible condition, and admitted under my care. He had been seen to stagger and fall sideways in the street, but did not strike his head in falling. On admission he was profoundly comatose. Breathing slightly stertorous, slow, and regular. Pulse 65, soft, irregular, and slow. Head and extremities cold; skin pale and clammy. Left eye completely closed; right eye partially so. Pupils equal, insensitive, very small. Slight rigidity of extremities on right



side. Left arm quite flaccid, and the left leg more so than the right. This was the patient's condition when he was seen at 10 a.m. After the application of a hot flannel to his cardiac region the pulse improved, becoming 72 and regular, and it did not vary perceptibly till just before the patient's death, five hours after admission, when it again began to fail. At 10.15 the temperature in the rectum was taken, and found to be  $94.5^{\circ}$ ; at 11 a.m. it was  $94.5^{\circ}$ ; at 11.30,  $94.4^{\circ}$ ; at 12,  $94.4^{\circ}$ ; at 12.30,  $94.6^{\circ}$ ; and at 1.15 (just after death),  $95.0^{\circ}$ . The coldness and pallor of the skin continued throughout. The pupils enlarged slightly one hour after admission (remaining still, however, distinctly smaller than natural), and continued so till death. Stertor increased slightly about forty minutes before death, at 1.10. Some urine drawn off after death was found to contain no albumen. At the autopsy the calvaria was found to be extremely adherent to the dura mater. After efforts to separate them, they were both removed together, when some clots and semi-fluid blood welled up from the base over the frontal lobes. During the removal of the brain itself also semi-fluid blood escaped through small rents in the right temporo-sphenoidal and the right orbital convolutions. After the removal of the brain a quantity of blood was found covering the anterior and middle fossæ of the skull, and thence extending into the vertebral canal. Over the base of the brain there was a large effusion of blood beneath the arachnoid, extending from the optic commissure over the pons, medulla, and hinder part of the cerebellum. The lateral ventricles were both very greatly distended, and full of blood-clot. When this blood had been removed, the superficial portion of the right corpus striatum was found to be much torn and shreddy. At the bottom of the space thus formed a large aneurysm was found, about the size and shape of a small chestnut, three-quarters of an inch in diameter. In the thin wall of this aneurysm a hole about one line in diameter was found. The third and fourth ventricles and the passage between them were all distended with blood. The great arteries at the base of the brain were not notably diseased, nor, after careful search by Mr. William Pasteur, were miliary aneurysms found in any part of the brain. The kidneys were slightly granular on the surface; their capsules were thickened, and the cortex was wasted in each, but to a slight extent. Other organs presented no noteworthy changes. Dr. Bastian said he did not know of any recorded case of apoplexy in which the rectal temperature had fallen so low as  $94.4^{\circ}$ , and in which it remained so near to this point for a period of three hours. In only two of the cases recorded by Bourneville did it ever sink so low as  $96^{\circ}$  Fahr. ( $35.4^{\circ}$  C.). It rarely, indeed, sinks lower than  $96.5^{\circ}$ . The prognostic value of such a sign is great, and therefore he has been induced to place this case on record. It is, however, an interesting one in other respects. He has also been unable to discover the record of any case in which so large an aneurysm has been found embedded within the substance of the brain, and formed upon one of its smaller vessels. It is rare even to find one so large situated upon the basilar or middle cerebral artery. Yet this large aneurysm was evidently formed upon one of the small arteries that come off directly from the first part of the middle cerebral and enter the nucleus lenticularis. The rupture of such an aneurysm, so situated, led to the extravasation of an extremely large quantity of blood. In this connexion it is remarkable that the pulse and respiration should not have been more disturbed. Probably some distinct increase of the extravasation already existing caused their ultimate sudden failure. The absence of convulsions in this case is worthy of note; and it is also well to bear in mind that, if ventricular hæmorrhage be associated with a basal meningeal extravasation of blood, the pupils will be rather contracted than dilated.

The PRESIDENT inquired into the condition of the heart and arteries in the first case related.

Dr. BASTIAN replied that there was no enlargement of the heart, and no change visible to the naked eye in the vessels.

The PRESIDENT then called attention to the fact that no albumen had been discovered in the urine, although the kidneys had been found to be granular—a fact which, he considered, afforded conclusive proof that cases may occur of granular kidney with the urine full of uric acid, but free from casts or albumen.

Dr. ANGEL MONEY asked whether any marked cyanosis

had been present in the first case. Some cases of injury to certain parts of the floor of the fourth ventricle had been shown by Dr. Brown-Séquard to be accompanied by lowering of temperature, the power of the tissues to metabolise being annihilated.

The PRESIDENT observed that no case had been recorded of a lower temperature than  $96.3^{\circ}$ .

Dr. GLOVER inquired as to the accuracy of the thermometer, and as to whether more than one instrument had been used.

Dr. CHARLEWOOD TURNER asked whether the aneurysm was situated in the substance of the corpus striatum, and pointed out that it would probably have produced symptoms. The condition of the vessels in such cases was of great importance, and in almost all those examined by himself, marked epithelial changes had been observed. Some acute changes always preceded aneurysm. Hæmorrhage into the sheath of a vessel might occur, with thickening as the only result. Later on, a second hæmorrhage might so far dilate the thickened vessel as to form an aneurysm large enough to give rise to symptoms. Further hæmorrhage might occur into the tissues around, from the arterial wall thus dilated.

Dr. ALTHAUS had seen a case of low temperature of  $95.5^{\circ}$ . He called attention to the fact that no rise of temperature took place in this case subsequently to the extreme lowering. Such a rise usually followed a rapid fall from cerebral hæmorrhage, and might be generally taken to foretell a fatal result.

Dr. T. H. GREEN regarded the second case with most interest, owing to the complete absence of any cause for embolism which it presented. He suggested that a careful examination of the vessel should be made. The contraction of the pupils was common in cases of hæmorrhage about the base of the brain.

The PRESIDENT mentioned that several writers had called attention to the occurrence of changes in vessels, of which the exact pathology was not known. Sir James Paget had suggested acute fatty changes in explanation of some of these.

Dr. BEEVOR inquired into the exact character of the convulsions.

Dr. BASTIAN, in reply to the various questions put to him, stated that no special cyanosis had been observed, nor was there any noticeable post-mortem alteration in the character of the blood. The amount extravasated was very great, and the hæmorrhage had probably been continuous to the end. This sufficiently accounted for the absence of subsequent high temperature, which only occurred after active bleeding had ceased. The low temperature was probably due to shock. The accuracy of the thermometer was undoubted. No previous symptoms of paralysis had ever been noticed. An aneurysm slowly developing might give rise to no symptoms. No doubt could be entertained that the lesion in his case was aneurysmal. Slow hæmorrhage into the lateral ventricles might give rise to convulsions by irritation of their walls, but in the present case the bleeding had been too rapid.

Dr. ALTHAUS read the particulars of a

#### CASE OF SYPHILITIC TUMOURS OF THE CEREBRAL MEMBRANES.

The patient was a girl, aged fourteen, in highly respectable circumstances, without any history of congenital or acquired syphilis. Her illness began with gradual loss of power in the left side of the body, and cessation of the catamenia, and was diagnosed as a form of hysteria, and treated with iron and electricity. The patient, however, gradually got worse, and eventually sank into a comatose condition. Dr. Althaus only saw her once, in consultation, about a week before her death, and then made the diagnosis of tumour of the brain, and advised treatment by perchloride of mercury and iodide of potassium. The principal symptom which led him to reject the idea of hysteria was the exaggeration of tendon reflexes in the parietic side of the body, which is indicative of structural disease of the nervous centres, while in hysteria these reflexes may be normal, increased, or diminished, but are equal in symmetrical parts of the body. In addition to this there had been headache and vomiting; the paralytic symptoms had come on gradually, and pointed to a lesion in the motor area of the right side of the brain; while a marked degree of hyperæsthesia which was like-



wise present in the affected side rendered it evident that the lesion was of an irritative character, and also affected sensory areas. There had been no convulsive seizures, which are common in some forms of tumour of the brain, but are not a necessary sequel of the disease. There was no choked disc, from which it was concluded that the intracranial space was not materially reduced, and that the tumour was therefore not of a large size. The post-mortem examination revealed a multitude of small nodular growths, of a yellowish-grey colour, permeating the pia mater and arachnoid, which latter were opaque, thickened, and adherent to the subjacent cortex. Many of these small tumours were disposed in confluent clusters, forming larger nodulated masses, and they were occasionally traced into the cortex and subjacent medulla. The lumen of the bloodvessels was much reduced by thickening of their inner coat, and accumulation of round cells, occasionally to occlusion; and the bloodvessels of the cortex were unnaturally engorged. Dr. Althaus discovered various points in connexion with the pathology of the case, and remarked, amongst others, upon a peculiarly foetid smell exhaled by the skin of the patient, which is often found in syphilis, and which in doubtful cases may be of diagnostic importance.

In reply to the President, Dr. ALTHAUS stated that no examination of the thoracic viscera had been made. The pulse had been 100, and the temperature normal.

Dr. ANGEL MONEY took exception to the statement that the absence of a choked disc could be held to indicate the size of a tumour. Was cerebral tumour invariably accompanied by optic neuritis?

Dr. BASTIAN asked what was the earliest period at which such tumours had been found in cases of undoubted syphilis. He believed that not less than five, and more frequently ten, years was the usual time, the changes being generally a very late sign of syphilis. If that were so, the diagnosis of syphilis in this case became improbable. Might not other conditions besides syphilis tend to engender such changes? He related a case of a girl, aged twenty, who died from tubercular meningitis, and in whose skull, upon the inner surface of the vertex, ulcerations were present, which had all the characteristics of syphilis, although there was no other reason to believe that the patient had ever been the subject of the disease. Possibly other forms of cachexia might engender such lesions. Might they not be due to some arterial changes?

Dr. GREEN agreed with Dr. Bastian as to the difficulty of distinguishing with certainty between tubercular and syphilitic lesions of that character.

Dr. GLOVER considered that the normal temperature in this case rendered the diagnosis of tubercle impossible, although cases did occur in which only slight rises took place. In cases such as this, although on moral grounds it was highly desirable to avoid a diagnosis of syphilis if possible, still from the clinical standpoint that disease was more amenable to treatment than any of the other forms.

Mr. BARKER called attention to a recent paper by Auspitz, in which it was shown that the lesions described by Heubner in the vessels in syphilis might be found also in other kinds of arteritis.

Mr. R. W. PARKER mentioned the occurrence of pachymeningitis in cases of congenital syphilis. The lesion might occur very late in the disease.

Mr. W. SMITH referred to a case of severe meningitis and pachymeningitis in a girl who had been the subject of interstitial keratitis.

The PRESIDENT suggested that the brain of Dr. Althaus's case should be further examined. He considered that a diagnosis founded upon the appearance of the anatomical structures alone, without reference to the clinical history, was insufficient. Might not the case have been an anomalous form of tubercle?

Dr. ALTHAUS, in reply, pointed out that the clinical features of the case negatived the possibility of tubercular disease. His diagnosis was founded upon the post-mortem appearances, and he was not aware that they occurred in any other condition. Throughout the case there had been no cachexia, no primary or secondary signs of syphilis, and no probability of congenital syphilis. He had met with similar pathological changes within two years of the primary infection. Optic neuritis was not a constant sign of tumour in the brain, and usually only occurred with large tumours.

#### CASE OF DISLOCATION OF THE JAW, REDUCED AFTER EIGHTEEN WEEKS.

Mr C HILTON GOLDING-BIRD related a case of dislocation of the jaw. The patient, a sailor, aged twenty-two, sustained a double dislocation of the jaw whilst gaping on May 2, 1883. Unable to obtain any relief where he was, he eventually returned to England, the dribbling of the saliva having now ceased, and the jaws being closed to about three-quarters of an inch. On August 31 the first attempts were made at reduction under chloroform by manipulation with the thumbs in the mouth by pressing up the chin forcibly, the wedges being placed between the molars, and by Nélaton's method of pressure directly upon the coronoid processes. The position of the jaw was not improved, but adhesions were broken, and the jaw rendered more movable, though still in the vicious position. A week later (September 2), Nélaton's plan was tried again, and after two attempts the right side was reduced; the left was now easily replaced, and direct pressure on the chin backwards brought the lower front teeth into their normal position behind the upper. In a few days the patient was discharged from hospital, well. The author expressed his opinions that whilst the coronoid processes were in contact with the malar bones, yet the main obstruction to reduction lay in the eminentia articulares, in spite of the high opinions that were expressed to the contrary. He believed the case of eighteen weeks' standing to be, with Pollock's of four months, the longest after injury in which reduction has been quite successful.

Mr. PICK inquired whether the patient had been seen since the reduction of the dislocation, and remarked on the liability to recurrence. He quoted a case of Mr. Pollock's, in which dislocation was reduced by means of the tourniquet and wedge, four months after its occurrence.

Mr. GOLDING BIRD replied that the patient had not been seen since his visit, a fortnight after the reduction.

Two patients were exhibited, the one a case of Aphemia following severe injury to the left side of the head, by Mr. G. R. TURNER; the other, a case of Radical Cure of Femoral Hernia, by Mr. BERKELEY HILL.

#### NEW INVENTIONS AND IMPROVEMENTS

##### WOOLLEY'S SANITARY ROSE POWDER.

THIS antiseptic soluble dusting powder, prepared with boracic acid according to a suggestion originating with Mr. Lund, of Manchester, promises to find a useful application in the nursery and the sick-room. We have found it to possess the qualities claimed for it. It is soluble, unirritating, and deodorant, and, besides being a safe and convenient powder for infants, is likely to prove advantageous in cases of offensive perspiration and of incontinence of urine, and may be worth a trial in pruritus and eczema pudendi. This preparation may be obtained of Messrs. J. Woolley, Sons, and Co., of Manchester, or through the London agents, Messrs. W. Edwards and Son, 157, Queen Victoria-street, E.C.

##### THE VAPO-CRESOLENE VAPORISER.

THIS apparatus, which was introduced into this country some months ago by Messrs. Allen and Hanburys, of Plough-court, Lombard-street, E.C., for the vaporisation of cresolene—a new compound from coal-tar, said to be a specific for whooping-cough—is very useful for the dissemination of other volatile substances which it may be deemed advisable to bring into contact with the respiratory tract. Cresolene in itself is a good stimulant to the laryngeal and bronchial mucous membrane, but any of the essential oils may be used in the apparatus, such as the oil of Sweet Flag, Cubebs, Juniper, Pinus Silvestris, etc. In the case of children, who cannot be got to use the ordinary inhalers, this form of vaporiser will be found very convenient.

##### ALLEN AND HANBURY'S MALT JELLY.

THIS is a very "elegant" preparation of Pure Malt Extract, of which it contains 50 per cent., combined with a matrix of gelatine. It can be obtained flavoured with Raspberry, Malaga, or Vanilla, and thereby the sickly flavour of the malt is very successfully concealed. The jelly is well taken



by children, and will no doubt prove a very excellent method of administering the elements of malt to nursing mothers and others whose stomachs cannot tolerate the extract in its undiluted state.

## MEDICAL NEWS.

**UNIVERSITY OF DURHAM FACULTY OF MEDICINE.—**MICHAELMAS TERM, 1883.—At the First Examination for degrees in Medicine and Surgery at the College of Medicine, Newcastle-upon-Tyne, held on October 8, 9, 10, 11, and 12, the subjects of examination being Anatomy, Physiology, Chemistry, and Botany, the following gentlemen passed:—

C. M. Hendricks (*Second Class Honours*), A. R. Aubrey, W. R. Awdrey, F. S. Barher, J. Barker, G. N. Caley, R. Crosby, T. Carr, I. Davis, C. R. Hodges, J. Hindle, H. F. Iliewicz, C. E. Jennings, W. F. Moore, F. J. Malden, A. S. Nance, A. C. A. Packman, J. E. Pantou, H. T. Platt, A. W. Rowe, W. J. Ruddock, W. J. Spoor, B. C. Simpson, J. J. W. Stevens, A. Street, J. Straughan, J. Wilding, F. P. Wightwick.

The following satisfied the examiners in Anatomy, Physiology, and Botany:—

J. E. Coad, T. Harling, H. B. W. Plummer.

The following satisfied the examiners in Anatomy, Physiology, and Chemistry:—

H. W. Cross.

Forty-three candidates presented themselves for examination. The examiners were James Murphy, M.D., Thomas Oliver, M.D., M.R.C.P. Lond., G. E. Williamson, F.R.C.S. Eng., P. P. Bedson, D.Sc. Lond., John Harley, M.D., John Curnow, M.D.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—The following gentlemen were admitted Members on October 25:—

Chadwick, Charles Montague, M.B. Oxon., London Hospital, E. Chapman, Paul Morgan, M.D. Lond., 26, Gordon-square, W.C. Duncan, Wm. Archdeekne, M.D. Brussels, 65, Lambeth Palace-road, S.E. Dutt, Money Lall, L.M. Bombay, 30, Guilford-street, W.C. Jones, Charles Montague Handfield, L.R.C.P., 24, Montague-square, W. Money, Angel, M.D. Lond., 14, Langham-place, W. Savill, Thomas Dixon, M.D. Lond., St. Thomas's Hospital, S.E. Suckling, Cornelius William, M.D. Lond., Birmingham.

The following gentlemen were admitted Licentiates on October 25:—

Backus, Lorenzo, M.B. Toronto, 46, Grafton-street, E. Bell, John, University Hospital, W.C. Bolton, Alfred, Whitecross, Warrington. Boswell, John Irvine, 8, Guilford-place, W.C. Bowser, James Charles, M.D. McGill, 2, Cornwall-road, Stroud Green, N. Cahill, John, 26, Albert-gate, S.W. Carruthers, George, M.D. McGill, 2, Cornwall-road, Stroud Green, N. Cock, Morris Fisher, Woodville, South Molton. Cook, Jonathan Nield, 19, Arundell-street, W. Cox, John Henry, 51, Doddington-grove, S.E. Dacre, John, General Infirmary, Leeds. Dolsen, Francis Jacob, M.B. Toronto, 46, Grafton-street, E. Doyle, Edward Angel Gaynes, Trinidad. Edwards, George Frederick, St. James' Green, Thirsk. Evans, William George, King's College Hospital, W.C. Fraser, James Alexander, 41, Finchbury-square, E.C. Greenwood, George, 2, Queen Anne's-place, Bush-hill Park, N. Harries, Henry Jones, 223, Stanhope-street, N.W. Hooper, Henry Walpole, Souldern, Sevenoaks. Hoople, Edwin Manley, M.B. Toronto, 46, Grafton-street, E. Irving, Duncan Bell, White Hill, Lockerbie, Scotland. Jalland, Robert Wallace, Horncastle. Jenner, John Earle, M.B. Toronto, 46, Grafton-street, E. Knaggs, Robert Lawford, 111, Disraeli-road, S.W. Lawrence, Sidney Cameron, 116, Bath-row, Birmingham. Leaver, Charles Basil, 24, Horbury-crescent, W. Mercus, James, 4, Offley-road, Brixton, S.W. Miller, Thomas Hugh, 10, Fentiman-road, S.W. Nunnerley, Philip Jebb, 11, Powis-square, W. Oliver, Vere Langford, St. George's Hospital, S.W. Paley, Frederick John, 25, Granville-square, W.C. Robinson, Henry Betham, 7, York-crescent, Lower Norwood, S.E. Rook, Albert Edward, Middlesex Hospital, W. Stewart, Edward, 16, Harley-street, W. Stokes, Francis Alexander, 21, Compton-terrace, N. Webster, William Frederick, 9, Victoria-villas, Kilburn, N.W. Wigg, Henry Higham, 18, Albert-street, N.W. Wood, Neville Thorold, 34, Hill-street, S.W.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 25:—

Draper, James William, Barnsbury-road, N. Forden, George, The Stafford Infirmary. Harris, John Henry, Abertillery, Mon. Winstanley, Robert Wyndham, Victoria Dock Dispensary. Whish, Martin Samuel, Granby-street, N.W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Becher, George John Dashwood, Middlesex Hospital. Boobbyer, Philip, King's College Hospital.

## APPOINTMENTS.

BROWNE, VALENTINE, M.D.—Assistant-Surgeon to the Melbourne General Hospital.

PETTIGREW, J. BELL, M.D., F.R.S.—Medical Officer to Gibson Hospital, St. Andrews, N.B.

## DEATHS.

HAFFENDEN, DALTON ADOLPHUS, M.R.C.S., at 7, Bath-place, Kensington, on October 23, aged 50.

HIGGINS, ANDREW HENRY, L.R.C.P., L.S.A., Her Majesty's Certifying Surgeon to Factories, at Weston House, Southwark, on October 27, aged 61.

## VACANCIES.

LONDON LOCK HOSPITAL AND ASYLUM, WESTBOURNE-GREEN, HARROW-ROAD, W.—House-Surgeon in the Female Department. Salary £100 per annum. Applications, with testimonials, to be sent to the Secretary by November 24.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE, BLOOMSBURY, W.C.—Medical Officer and Registrar (non-resident). Salary at the rate of £100 per annum. Candidates must be duly qualified, and reside in the immediate neighbourhood of the Hospital. Applications to be sent to the Secretary, 33, Queen-square, W.C., on or before November 7. Further particulars may be obtained by letter, or personally between 2 and 3 p.m. (Saturdays excepted).

ST. SAVIOUR'S UNION, SURREY.—Assistant Medical Officer and Dispenser. (For particulars see Advertisement.)

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

### RESIGNATIONS.

Burton-upon-Trent Union.—Mr. Samuel H. Warren has resigned the Tutbury District: area 21,301; population 5917; salary £58 10s. per annum.

Dore Union.—Mr. Alexander Lane has resigned the Madley District: area 20,563; population 2936; salary £70 per annum.

Hexham Union.—The office of Medical Officer for the Eastern District is vacant: population 5222; salary £15 per annum. The office of Medical Officer for the Western District is vacant: population 3800 (about); salary £15 per annum.

Holsworthy Union.—Mr. A. W. Owen has resigned the Blacktorrington District: area 12,569; population 1433; salary £22 11s. 6d. per annum.

St. Asaph Union.—Mr. Richard Humphreys has resigned the Llanfair-talhaearn District: area 37,175; population 3463; salary £83 per annum.

### APPOINTMENTS.

Bingham Union.—Henry Williams, M.R.C.S. Eng., L.R.C.P. Lond., to the West District.

Bridport Union.—John F. H. Ellerton, M.R.C.S., L.R.C.P. Edin., to the Second District.

Chepstow Union.—John T. Brown, M.B. and C.M. Glasg., to the Tintern District.

Drozford Union.—Herbert A. H. McDougall, M.R.C.S. Eng., L.R.C.P. Edin., L.A.H. Lond., to the Hambledon District.

Dursley Union.—Abraham S. Connellan, L.R.C.S. Ire., L.A.H. Duh, to the Third District.

Kensington Parish.—Thomas O. Dudfield, M.D. St. And., L.R.C.P. Lond., M.R.C.S. Eng., to the South District.

Leigh Union.—Benjamin Jones, M.R.C.S., L.R.C.P., to the Pennington District and the Workhouse.

Liverpool Parish.—James Pinkerton, M.D., M.Ch. Queen's Univ., Ire., as Assistant Medical Officer at the Brownlow Hill Workhouse.

Oundle Union.—Arthur S. Stokes, M.R.C.S. Eng., L.R.C.P. Edin., to the Weldon District.

Peterborough Union.—Leonard Cane, M.D. Lond., M.R.C.S. Eng., L.S.A., to the Workhouse and the Peterborough District.

Steafield Union.—Cyril John Williams, L.R.C.P. Edin., L.R.C.S. Edin., to the Blankney District.

Warrington Union.—Christopher N. Spinks, M.R.C.S. Eng., L.S.A., to the Schools at Padgate.

**THE LONDON HOSPITAL MEDICAL COLLEGE.**—The Buxton Scholarship, of the value of £30, has been awarded to Mr. H. E. Fernandez, and that of the value of £20 to Mr. A. Fagan.

**EAST LONDON HOSPITAL FOR CHILDREN.**—Miss Cowen, the elocutionist, is about to give another dramatic entertainment in aid of the funds of this Hospital. Last year about £70 was realised, and it is to be hoped that the present venture may not be less successful.

**THE LATE DR. ROSS, OF INVERNESS.**—On the 23rd ult., Dr. John Ross, a well-known medical practitioner in the northern counties, died at his residence in Inverness after a lingering illness. Dr. Ross was a native of Sutherlandshire, and had a wide and extensive practice. His reputation as a surgeon was very high, and as a skilful medical adviser he occupied the foremost place.

**ANATOMY APPOINTMENTS IN IRELAND.**—It is stated that Prof. Peter Redfern has withdrawn his resignation as Professor of Anatomy in the Queen's College, Belfast, and continues, therefore, for the present, to fill that appointment as before. There will, consequently, be no vacancies, as had been anticipated, in Cork or Galway. The election to the vacant Professorship of Anatomy in the Royal College of Surgeons in Ireland was to be held on Thursday.



**THE MEDICO-PSYCHOLOGICAL ASSOCIATION.**—The quarterly meeting of this Association was held at Bethlem Hospital on Friday, October 26, when a paper was read by Dr. Mickle on "Rectal Feeding and Medication." At the commencement of the meeting, reference was made to the death of Dr. Boyd at the fire at Southall Park, and a resolution of condolence with his family was unanimously adopted.

**FATAL LEAP OUT OF A WINDOW BY A FEVER PATIENT.**—A man, aged twenty-eight years, residing in Govan, near Glasgow, suffering from typhus fever with delirious symptoms, during the temporary absence of his wife, opened the window of the room in which he was, and jumped out into a back court, a height of two storeys, sustaining injuries of such a nature that he died a few minutes after being picked up.

**HOSPITAL SATURDAY FUND.**—At a meeting of the board of delegates of this fund, held on Saturday evening—Mr. H. N. Hamilton-Hoare, the hon. treasurer, presiding,—Mr. R. Frewer, the Secretary, stated that £7000 had been placed on deposit at the bank, as against £6000 at the corresponding period of last year, after £1000 had been paid in defraying necessary expenses during the year. The total receipts, including the street and workshop collections, would, he confidently anticipated, reach £10,000.

**THE SANITARY INSTITUTE OF GREAT BRITAIN.**—A special meeting of the signatories of an invitation to the Sanitary Institute of Great Britain to hold an annual congress and exhibition in Dublin was held in the King and Queen's College of Physicians, Kildare-street, Dublin, on Monday, the 29th ult. The meeting was largely and influentially attended. On the motion of the President of the College of Physicians, seconded by the Registrar-General for Ireland, the Lord Mayor-elect of Dublin took the chair. Mr. William Robert Maguire, Honorary Secretary, having made a preliminary statement, it was agreed, on the motion of the Registrar-General (Dr. Grimshaw), seconded by Sir Robert Jackson, C.B., that the Sanitary Institute of Great Britain be invited to hold their congress in Dublin in 1884. A local reception committee was appointed to take all steps necessary for the reception of the congress; and Mr. John Bagot, Alderman Tarpey, and Mr. Robert O'Brien Furlong were requested to act as honorary treasurers of a fund to defray the expenses of the congress.

**ACADEMY OF MEDICINE IN IRELAND.**—The first annual general meeting of the Fellows and Members was held in the hall of the King and Queen's College of Physicians, Kildare-street, Dublin, on the afternoon of Friday, October 26. Dr. J. T. Banks, President of the Academy, took the chair. The ballot for the officers of the coming session resulted as follows:—General Treasurer: Robert MacDonnell, F.R.S. General Secretary: William Thomson. Council of Medical Section: J. Magee Finny, Samuel Gordon, T. W. Grimshaw, Richard A. Hayes, H. Kennedy, A. N. Montgomery (Secretary), J. W. Moore, Christopher A. Nixon, George F. Duffey, Walter G. Smith. Council of Surgical Section: Wm. Colles, Henry Gray Croly, Archibald H. Jacob, Edward Dillon Mapother, Edward Stamer O'Grady, W. Thornley Stoker, Wm. Stokes (Secretary), John K. Barton, P. J. Hayes, H. R. Swanzy. Obstetrical Section: President—George H. Kidd; Council—Lombe Atthill, Fleetwood Churchill, George Johnston, J. Rutherford Kirkpatrick, Arthur V. Macan, Thomas More Madden, W. Cox Neville (Secretary), William J. Smyly, John A. Byrne, John Denham. Pathological Section: President—Anthony H. Corley; Council—Phineas S. Abraham, Ed. H. Bennett (Secretary), Charles Coppinger, A. W. Foot, T. E. Little, J. B. Story, J. V. Lentaigne, J. M. Purser, F. B. Quinlan, Wm. Stoker. A honorarium of £100 was, after a long and stormy debate, voted to Dr. William Thomson, the General Secretary, in appreciation of the very efficient manner in which he had discharged the arduous duties of his office during the past year.

**KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.**—At the annual stated meeting of the College, held on St. Luke's Day, October 18, 1883, the following officers were elected for the ensuing year:—President: William Moore, M.D. Vice-President: Francis Richard Cruise, M.D. Censors: Francis R. Cruise, M.D., V.P.; Fleetwood Churchill; George Frederick Duffey, M.D.; John Mallet Purser, M.D. Additional Examiners: John Magee

Finny, M.D. (in Medicine); Arthur Vernon Macan, M.D. (in Midwifery); Christopher John Nixon, M.B. (in Anatomy); John Mallet Purser, M.D. (in Physiology and Histology); Francis J. B. Quinlan, M.D. (in Medical Jurisprudence and Pathology); Walter G. Smith, M.D. (in Chemistry). Registrar: John William Moore, M.D. Treasurer: Aquilla Smith, M.D. Examiners in Midwifery: John Rutherford Kirkpatrick, M.B., King's Professor of Midwifery; and Stephen Miles MacSwiney, M.D. Professor of Medical Jurisprudence: Robert Travers, A.M., M.D. Representative on the General Medical Council: Aquilla Smith, M.D. Agent to the Trust Estate: Charles Uniacke Townshend, Esq. Law Agents: Messrs. Stephen Gordon and Sons. The following were elected to the Fellowship:—Michael Joseph Clune, Licentiate in Medicine and Member of the College, M.D. Brussels, Fellow and Master of Arts in the University of Sydney, New South Wales; Effingham Carroll MacDowel, Licentiate in Medicine and Member of the College, M.D. Univ. Dub. (*stipendiis condonatis*). Mr. Thomas Henry Innes was elected Librarian to the College on the foundation of Sir Patrick Dun, Clerk to the College, and Clerk to the Trust Estates of Sir P. Dun.

**HOSPITAL MANAGEMENT.**—The first meeting of the enlarged Committee, originally constituted at the Conference on Hospital Administration which took place in July last, under the auspices and management of the Social Science Association, was held at No. 1, Adam-street, Adelphi, on Thursday week, for the purpose of considering the draft constitution of a proposed "Hospitals Institute," which had been prepared by a sub-committee appointed in July. Mr. Alexander H. Ross, M.P., was in the chair, and a large number of the Committee, which is constituted as follows, were present:—Earl of Cork and Orrery, K.P., St. George's Hospital; Viscount Powerscourt, K.P., Ireland; Sir T. Fowell Buxton, Bart., London Hospital; Sir Rutherford Alcock, K.C.B., Westminster Hospital; Sir Joseph Fayrer, K.C.S.I., M.D., LL.D., F.R.S., Charing-cross Hospital; Mr. H. W. D. Acland, M.D., C.B., D.C.L., F.R.S., Oxford University; Mr. William Bousfield, King's College Hospital; Mr. J. S. Bristowe, M.D., F.R.S., St. Thomas's Hospital; Mr. Henry C. Burdett, Seamen's Hospital and Home Hospitals Association; Mr. J. H. Buxton, London Hospital; Mr. Mackenzie Chalmers, London Fever Hospital; the Rev. Canon Erskine Clarke, M.A., Bolingbroke House Pay Hospital; Dr. Farquharson, M.P., Scotland; Captain Douglas Galton, C.B., D.C.L., F.R.S., University College Hospital; Mr. S. Leigh Gregson, Southern Hospital, Liverpool; Mr. Timothy Holmes, St. George's Hospital and Provident Dispensaries; Mr. G. B. Lloyd, General Hospital, Birmingham; Mr. Charles Macnamara, F.R.C.S., Westminster Hospital; Mr. Francis S. Powell; Dr. Quain, Consumption Hospital, Brompton; Mr. Alexander H. Ross, M.P., Middlesex Hospital; Dr. E. H. Sieveking, St. Mary's Hospital; Dr. T. Gilbert-Smith, London Hospital; Mr. Joseph White, F.R.C.S., General Hospital, Nottingham; Mr. John Wood, F.R.S., King's College Hospital; Mr. E. Parker Young, St. Mary's Hospital. The Secretary *pro tem.* to the Committee is Mr. J. L. Clifford-Smith.

## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

### THE CAMDEN TOWN EPIDEMIC.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Referring to your article of the 20th inst., to which my attention has just been directed, you express yourself as "not entirely satisfied" with regard to some quality of my report on recent milk-typhoid in St. Pancras, and you go on to "suspect that some very important circumstances have been overlooked or suppressed." Your suspicions are based on a letter to the *Daily News* from Mr. Murray, of St. Albans, which contains some statements which would assuredly need critical examination before their bearing on the infectiousness of Mr. Z's milk could be rightly apprehended. With these, however, I am not now concerned. I write to object to a "suspicion" of "suppression" of facts expressed by the writer in your journal, who had before him the following passage:—"Mr. Z. has furnished me with a list of people who came to his farm during the months of June, July, and August, and to these I have written, asking for information as to their health; replies have not yet been received from all, and I do not, therefore, consider this branch of the inquiry altogether at an end." Whatever may be the affirmative evidence inculpating the St. Albans milk, its nature and validity may be judged from the text of the report. I am not concerned to defend its reasoning. In your issue of last week I find the arguments of the report thus summed up by Dr. Edward Squire,



whose authority in the case may help to reassure the writer of your article. The "report goes far to prove a connexion between the outbreak at St. Pancras and the milk from Mr. Z.'s farm; but, as the report says, the manner in which the milk became infected is not clear."

October 30. I am, &c., SHIRLEY F. MURPHY.

[We are sorry that Dr. Murphy should think we accused him of conscious and wilful suppression of evidence, and we hope he will accept this expression of regret. We think that if he reads the article again he will see that our remarks will bear quite another interpretation.—Ed. *Med. Times and Gaz.*]

#### THE HIND FUND.

##### TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—F. B. Courtenay, Esq., £10 10s.; Dr. H. Buss, £5; T. J. P. (per J. J. Pope, Esq.), £5; Sir Henry Pitman, £3 3s.; Thomas Smith, Esq., £3 3s.; Morratt Baker, Esq., £3 3s.; Sir Henry Thompson, £2 2s.; Dr. G. V. Poore, £2 2s.; E. Sandwell, Esq., £2 2s.; Henry Stear, Esq., £2 2s.; E. H. Beaman, Esq., £2 2s.; C. J. Harris, Esq., £2 2s.; C. G., £2 2s.; Prof. Ray Lankester, £2; Dr. John Williams, £1 1s.; J. P. Holyoake, Esq., £1 1s.; W. H. Torback, Esq., £1 1s.; R. F. H. King, Esq., £1 1s.; Dr. Curnow, £1 1s.; Dr. H. Allen Aldred, £1 1s.; Edmund Whitfield, Esq., £1 1s.; Duncan MacArthur, Esq., £1 1s.; Dr. A. G. Cross, £1 1s.; H. J. Manning, Esq., £1 1s.; John Bluett, Esq., £1 1s.; Dr. T. H. Moorhead, £1 1s.; W. Lee, Esq., £1 1s.; Dr. Fancourt Barnes, 10s.; C. C. Balding, Esq., 10s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, London; treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

#### THE ROGERS TESTIMONIAL.

The following subscriptions have been received:—Ernest Hart, Esq., £1 1s.; Dr. Whitwell, Shrewsbury, £1 1s.; S. Burrows, Esq., Witheridge, Devon, £1 1s.; Dr. O'Connor, Chatteris, £1 1s.; Dr. R. Carpenter, Stockwell-road, £1 1s.; G. Pound, Esq., Odham, Hants, £1 1s.; J. Breward Neal, Esq., Infirmary, New Wandsworth, £1 1s.; F. Hall, Esq., 1, Jermyn-street, £1 1s.; Dr. Grabb, Tilsoe Villa, Ealing, £1 1s.; C. Frost, Esq., F.R.C.S., Ladbroke-square, £1 1s.; Dr. Samuel Smith, Pershore, £1 1s.; Dr. A. Godrich, Fulham, £1 1s.; Dr. Gidley Moore, Ongar, 10s. 6d.; J. Wickham Barnes, £1 1s.; Dr. Walter Smith, Stanhope-terrace, Regent's-park, £1 1s.; Dr. Norman Kerr, £1 1s.

*The Bradshaw Lecture.*—This discourse will be delivered, early in the present month, in the Theatre of the Royal College of Surgeons, by the President, Prof. Marshall, F.R.S.

*Birmingham Suburban Hospital.*—Eight donations of £1000 have been made to the endowment fund of the Birmingham Suburban Hospital, presented by Mr. Jaffray to the General Hospital.

*In Memoriam.*—It is intended that the memorial to the late Duke of Marlborough shall take the form of additional buildings at the Radcliffe Infirmary, of which he was President, and it is also proposed to place a window in the parish church at Woodstock.

*Mortality, Croydon.*—The Medical Officer of Health for the borough reports that the death-rate for the past quarter has been less than twelve per thousand of the population. This is the lowest death-rate ever recorded in the borough.

*At Last!*—The Lower Thames Valley Main Sewerage Board has selected the Mortlake site for the proposed sewage works, and their Chairman and two other members have been authorised to negotiate the purchase. We hope this district will now soon be provided with a sanitary requirement, of which, by protracted opposition and conflicting interests, the inhabitants have for years been deprived.

*Impaired Value of the Reports of Medical Officers of Health.*—The Local Government Board has had occasion to make it known that it appears to the Board that the value of the reports of a medical officer of health on the sanitary condition of his district must be necessarily diminished in value if they are not furnished until many months after the expiration of the period to which they relate.

*Small-pox in Lancashire.*—An epidemic of small-pox is raging in Widnes, and a Government inquiry is to be held in connexion with the scheme for the erection of a permanent hospital for the town. Dr. Parsons, one of the Local Government Medical Inspectors, has visited the town and inspected the site. A large tent hospital has been erected for the purpose of isolating the worst cases.

*Medical Charities.*—The late Mr. J. N. Mappin, of Birchlands, Sheffield, has left legacies of £1000 each to the General Infirmary and the Public Hospital and Dispensary of that town, and a similar amount to the Rotherham Hospital, Public Hospital, and Dispensary. —The late Mr. William Thomas Watson, of Bristol, has left £200 each to the Bristol Royal Infirmary, the Bristol General Hospital, and the Weston-super-Mare Sanatorium.

*Fever in the Metropolis.*—The Small-pox and Fever Hospital returns showed that, with regard to the former, during the fortnight ending Friday, October 26, 14 patients had been admitted, 2 had died, and 19 had been discharged, leaving 54 cases under treatment—a decrease of 6 as compared with the previous fortnight. In fever cases the returns showed that during the fortnight 152 had been admitted, 21 had died, and 41 had been discharged, leaving 549 under treatment—being an increase of 48 as compared with the preceding fortnight.

*Dens Sap., Middlesex.*—There are now, including the nine admitted last week, 530 Licentiates in Dental Surgery of the Royal College of Surgeons. The Dental Members of the Board of Examiners are Messrs. Alfred Coleman, Augustus Winterbottom, and Charles Lissmore Tomes, all of whom are Fellows of the College by examination.

*Anti-Vaccination, Leicester.*—This town maintains its notoriety in resisting the Vaccination Acts. Twenty-one persons were summoned last week for refusing to comply with the law. The usual objections were unavailingly urged. There are several thousand unvaccinated children in the town, and one thousand parents, it is stated, are to be summoned.

*Dr. Joseph Rogers.*—At a meeting of the Dorset and West Hants Branch of the British Medical Association held at Wareham on the 24th ult., the following resolution was unanimously passed:—"That this Branch—having read in the public journals that Dr. Joseph Rogers has been suspended from his office as Medical Officer to the Westminster Workhouse, ostensibly on frivolous and vexatious charges, but really for giving honest evidence in an inquiry into the conduct of the master, and his resignation demanded; whilst the master, against whom most serious charges have been established, has been continued in office—desires to enter a strong protest against the manner in which Dr. Rogers has been treated, and which materially affects the position of every Poor-law medical officer. This Branch trusts that the action of the Committee of Council and of this Branch will be supported, not only by every branch of the Association, but also by the medical profession throughout the United Kingdom."

*Medical Knights.*—In our last issue we gave the names of the members of the profession on whom baronetcies have been conferred since the year 1850. The following is a list of those on whom the lesser honour of knighthood has been bestowed:—1852, Charles Nicholson, M.D., Speaker of the Legislative Council, New South Wales; 1853 Joseph Francis Oliffe, M.D., Physician to the Embassy at Paris; 1853, John Forbes, M.D., Physician to the Royal Household; 1853, James Lomax Bardsley, M.D., of Manchester; 1854, Henry Cooper, M.D., Mayor of Kingston-upon-Hull; 1854, John Spencer Login, M.D., Bengal Medical Service, Superintendent to Duleep Singh; 1856, William Brooke O'Shaughnessy, Surgeon Bengal Army; 1858, William Rae, M.D., Inspector of Hospitals and Fleets; 1858, James Pryor, Deputy-Inspector of Hospitals and Fleets; 1858, John William Fisher, Surgeon Police Force; 1860, James Ranald Martin, Physician to the India Office; 1863, James Coxe, M.D., Commissioner of Lunacy in Scotland; 1864, Alexander Taylor, M.D.; 1865, Edward Hilditch, M.D., Inspector-General of Hospitals and Fleets; 1867, Henry Thompson, F.R.C.S.; 1868, William Carroll, M.D., Mayor of Dublin; 1868, William Charles Hood, M.D.; 1869, James Alderson, M.D., President of the Royal College of Physicians; 1872, John Rose Cormack, M.D., Surgeon to the English Ambulance at Paris; 1873, John Cordy Burrows, Surgeon, Mayor of Brighton; 1873, Alexander Nisbet, M.D., Inspector-General of Hospitals and Fleets; 1873, Joseph Ritchie Lyon Dickson, M.D., Physician to the Persian Legation; 1878, James Salmon, M.D., Inspector-General of Hospitals and Fleets; 1881, James Risdon Bennett, M.D., F.R.S., President of the Royal College of Physicians; 1881, William Mac Cormac, Surgeon and Lecturer on Surgery, St. Thomas's Hospital; 1882, Oscar Moore Passey Clayton, F.R.C.S.; 1882, Erasmus Wilson, F.R.S., President of the Royal College of Surgeons of England; 1883, Alfred Roberts, Honorary Secretary and Consulting Surgeon to Prince Alfred Hospital, Sydney, New South Wales; 1883, Henry Alfred Pitman, M.D., Registrar to the Royal College of Physicians; 1883, Edwin Saunders, F.R.C.S., Surgeon-Dentist-in-Ordinary to Her Majesty; 1883, George Hornidge Porter, Surgeon-in-Ordinary to Her Majesty in Ireland. The following have received the honour of knighthood from the Lord Lieutenant of Ireland:—1883, John Gray, M.D., on opening the Vartty Waterworks; 1864, William Robert Wills Wilde, F.R.C.S., Surgeon-Oculist-in-Ordinary to the Queen, for services in connexion with the Irish Census; 1876, George Bolster Owens, M.D., Lord Mayor of Dublin; 1876, William Miller, M.D., Mayor of Derry.

#### COMMUNICATIONS have been received from—

Prof. G. M. HUMPHRY, F.R.S., Cambridge; Dr. GEORGE JOHNSON, F.R.S., London; Deputy Inspector-General NICHOLSON, M.D., Norwood; Dr. CRICHTON BROWNE, Manchester; Dr. ALTHAUS, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. CLIFFORD BEALE, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. J. T. W. BACOT, Seaton; Dr. W. P. MEARS, Newcastle-on-Tyne; THE HON. SECRETARY OF THE ODONTOLOGICAL SOCIETY OF LONDON; THE SECRETARY OF THE PARKES MUSEUM OF HYGIENE, London; Mr. GURNEY, London; Mr. MACALISTER, Cambridge; Mr. C. MESSENT, London; Mr. G. F. HENTSCH, London; Mr. BECHER, London; Dr. COATES, London; THE SECRETARY OF THE ANTI-COMPULSORY VACCINATION LEAGUE, London; Mr. T. M. STONE, Wimbledon; Dr. MOORE, Dublin; THE HON. SECRETARY OF THE UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne; THE HON. SECRETARY OF THE OBSTETRICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Dr. SIDNEY COUPLAND, London; Dr. A. T. THOMSON, Glasgow; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. WICKHAM BARNES, London; Mr. F. LE GROS CLARK, Sevenoaks, Kent; THE SECRETARY OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION, London; Dr. NORMAN CHIEVERS, London; Messrs. MERRYWEATHER, London; Mr. GEORGE SCUDAMORE, London; THE SECRETARIES OF THE STATISTICAL SOCIETY, London.



## BOOKS, ETC., RECEIVED—

Clinical Chemistry, by Charles Henry Ralfe, M.A., M.D.—Clinical Notes on Cancer, by Herbert L. Snow, M.D.—Report on the Berkshire Combined Sanitary Districts.

## PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Modern Thought—Science Monthly—Yorkshire Weekly Post, October 27—Philadelphia Medical Times—Veterinarian—Maryland Medical Journal—Archives Générales de Médecine.

## APPOINTMENTS FOR THE WEEK.

November 3. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

5. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m. Casual communications by Messrs. Storer Bennett, S. J. Hutchinson, and Henry Sewill. Mr. Henry Power, "On the Relation between Diseases of the Eye and Diseases of the Teeth."

MEDICAL SOCIETY OF LONDON (Council Meeting, 7½ p.m.), 8½ p.m. General Meeting. Prof. Lister, "On the Treatment of Fractures of the Patella" (adjourned discussion). Dr. Francis Warner, "On Postures indicative of the Condition of the Mind."

6. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Dr. Norman Moore—Multiple Diverticula of Small Intestine. Dr. Hadden—Rupture of Heart. Mr. Parker—Congenital Talipes Equino-varus (two cases). Mr. A. Durham—Osseous Tumour in a Cicatrix. Mr. Roeckel—Sections of Hemorrhoids. Dr. S. West—Obliteration of one Coronary Artery. Mr. Eve—Pedunculated Adeno-Sarcoma of the Skin. Mr. Warren Tay—Living Specimens ten years after Removal of nearly the whole of the Lower Jaw for Necrosis. Dr. Carrington—Ulcerative Endocarditis. Mr. Eve—Hydatid Cyst in Muscles of Calf (card). Dr. Lediard—Sarcoma of Lower Jaw of Horse (card). Dr. Burnett—Sacculated Aneurysm of the Aorta (card).

7. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. T. Henry Green, Demonstration—Cases of Commencing Phthisis.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. The President will deliver an Inaugural Address, "On Medico-Topographical and Health Histories for Districts and Towns."

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Specimens will be shown. The following papers will be read:—Mr. Lawson Tait—1. "On Three Cases of Pyosalpinx"; 2. "On a Case of Acute Gangrene of the Uterus"; 3. "An Undescribed Disease of the Fallopian Tubes." Dr. E. S. Tait, "Observations on Puerperal Temperatures."

8. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Surgical Discussion, "On Recent Advances in the Surgery of the Urinary Organs," introduced by Mr. Bowlby.

9. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

MEDICAL SOCIETY OF CHARING-CROSS HOSPITAL, 8 p.m. Mr. Ray Fletcher, "On Army and Volunteer Medical Organisation." (Visitors invited.)

CLINICAL SOCIETY OF LONDON (Council Meeting, 7½ p.m.), 8½ p.m. Mr. G. R. Turner—1. "On a Case of Wound of the Plantar Arch; Secondary Hemorrhage on the Thirteenth and Sixteenth Days after the Injury"; 2. "On Cases of Ununited Fracture of the Patella treated by Suture." Dr. Thin, "On Cases of Thickened Epidermis treated by Salicylic Plaster." Dr. Dawtrey Drewitt, "On a Case of Myxœdema." Living Specimens (8 p.m.): Dr. J. K. Fowler—Subcutaneous Nodules in an Adult (Male).

## VITAL STATISTICS OF LONDON.

Week ending Saturday, October 27, 1893.

## BIRTHS.

Births of Boys, 1366; Girls, 1358; Total, 2724.

Corrected weekly average in the 10 years 1873-82, 2711.5.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	753	697	1450
Weekly average of the ten years 1873-82, } corrected to increased population ...	825.9	766.9	1592.8
Deaths of people aged 80 and upwards ...	...	...	65

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	3	6	1	3	...	2	...	5
North ...	905947	2	6	11	6	5	...	12	...	9
Central ...	232238	...	2	6	1	2	...	2	...	1
East ...	692738	...	6	19	6	4	...	3	1	4
South ...	1265927	...	5	14	6	11	...	10	...	12
Total ...	3816483	2	22	56	20	25	...	29	1	31

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.740 in.
Mean temperature ...	...	...	...	...	...	50.9°
Highest point of thermometer ...	...	...	...	...	...	62.9°
Lowest point of thermometer ...	...	...	...	...	...	36.7°
Mean dew-point temperature ...	...	...	...	...	...	47.0°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.16 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 27, in the following large Towns:—

Cities and Boroughs	Estimated Population to middle of the year 1883.	Births Registered during the week ending Oct. 27.	Deaths Registered during the week ending Oct. 27.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2724	1450	19.1	62.9	36.7	50.9	10.50	0.16	0.41
Brighton ...	111262	69	43	20.2	60.5	37.0	49.1	9.50	0.26	0.66
Portsmouth ...	131478	100	31	12.3	...	...	...	...	...	...
Norwich ...	89612	60	28	16.3	...	...	...	...	...	...
Plymouth ...	74977	45	24	16.7	53.5	33.5	49.0	9.44	0.43	1.09
Bristol ...	212779	123	76	18.6	61.0	36.8	50.5	10.28	0.56	1.42
Wolverhampton ...	77557	61	25	16.8	57.6	33.8	46.4	8.03	0.27	0.69
Birmingham ...	414346	255	128	15.9	...	...	...	...	...	...
Leicester ...	129483	93	36	14.5	62.2	37.0	49.1	9.50	0.33	0.84
Nottingham ...	199349	148	74	19.4	59.6	33.2	47.3	8.50	0.33	0.84
Derby ...	85574	61	32	19.5	...	...	...	...	...	...
Birkenhead ...	83700	66	37	21.8	...	...	...	...	...	...
Liverpool ...	566753	352	273	25.1	58.2	38.1	48.5	9.17	0.96	2.44
Bolton ...	107862	67	49	23.7	56.1	30.6	45.1	7.28	1.83	4.65
Manchester ...	339262	229	183	28.1	...	...	...	...	...	...
Salford ...	190465	132	105	28.8	...	...	...	...	...	...
Oldham ...	119071	92	45	19.7	...	...	...	...	...	...
Blackburn ...	108460	88	45	21.6	...	...	...	...	...	...
Preston ...	98564	72	42	22.2	56.0	33.0	46.2	7.89	1.47	3.73
Huddersfield ...	84701	49	28	17.3	...	...	...	...	...	...
Halifax ...	75591	35	23	15.9	...	...	...	...	...	...
Bradford ...	204807	96	66	16.8	57.4	33.6	46.5	8.06	1.11	2.82
Leeds ...	321611	216	162	26.3	58.0	34.0	46.6	8.12	0.68	1.73
Sheffield ...	295497	203	107	18.9	62.0	32.0	48.0	8.89	0.74	1.88
Hull ...	176296	129	65	19.2	...	...	...	...	...	...
Sunderland ...	121117	105	52	22.4	...	...	...	...	...	...
Newcastle ...	149464	104	65	22.7	...	...	...	...	...	...
Cardiff ...	90033	53	37	21.4	...	...	...	...	...	...
For 28 towns ...	5620975	5827	3329	20.2	62.9	30.6	47.9	8.83	0.70	1.78
Edinburgh ...	235946	99	89	19.7	57.0	32.6	46.6	8.12	0.54	1.37
Glasgow ...	515589	339	258	26.4	55.5	29.0	45.4	7.44	1.31	3.33
Dublin ...	349.85	160	167	24.9	58.0	31.5	46.9	8.28	0.82	2.08

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.74 in.; the lowest reading was 29.53 in. at the beginning of the week, and the highest 30.01 in. at the end of the week.



# MEDICO-TOPOGRAPHICAL AND HEALTH HISTORIES

FOR DISTRICTS AND TOWNS.

*Inaugural Address delivered before the Epidemiological Society at the Opening of Session 1883-84, Nov. 7, 1883,*

By NORMAN CHEVERS, C.I.E., M.D.,  
President of the Society.

GENTLEMEN,—In occupying the position to which you have elected me, I have first to perform the pleasant duty of expressing my warm sense of the great honour which you have conferred upon me in desiring that I should preside at our meetings during the coming year. I feel the value of this distinction to be validly enhanced by the fact that, in placing me here, you pay a compliment and offer a strong encouragement to the medical officers of the Indian Army who, when toiling during a working lifetime in a country absolutely remote from the scientific associations of their civil medical brethren, cannot but feel gladdened by the knowledge that, on their retirement, they will be welcomed in a spirit of large hospitality and courtesy by the greatest medical philosophers of their time.

Since our last Annual Meeting, the scientific world and this Society have sustained a loss, which must long be deeply felt, in the death of William Farr, a past President and a Vice-President of our Association. I dislike much those eulogies which the little living are wont to offer glibly to the memory of the great dead. I will not, therefore, presume to record one syllable of praise upon the tomb of the esteemed and honoured Brother who has passed from amongst us. I will only ask a plain question, which will find a reply in all our minds. In what position would our knowledge of Vital Statistics and of Sanitation have now stood if England had not given birth to William Farr, whom she has lost, and to Edwin Chadwick, whom she still possesses?

The high object of the Epidemiological Society is, under the blessing of Divine Providence, to find means of protecting mankind against "the Pestilence that walketh in darkness,"—an inspired expression by which we may be permitted to understand, not literally that pestilence which, like cholera, notoriously steals upon its victims at the dead of night, but those pestilential maladies which are so dark in their manifestations that, even up to the present moment, our best men of science give them directly opposed interpretations.

When I had the privilege, a few years ago, of beginning to take an active part in the business of this Society, I had in my mind a painful recollection of the fact that, in my youth, the way of physicians who sought to discover the law of pestilence lay in absolute darkness beneath that lurid cloud of *odium theologicum* with which the bitterly controversial spirit of the seekers enveloped the object of their quest. But I soon found that, although every member of this body holds very strong opinions, these convictions are maintained in a spirit of the broadest and most philosophic tolerance. In this place the contagionist meets the non-contagionist, not as an irreconcilable foe or even as an erring brother, but as a valued fellow-worker, the fruits of whose labour are shared and prized alike by every member of our community. For my own part, much as I value those epidemiologists who think as I do, I am not sure that, if they were the sole occupants of these chairs, I should come here to meet them. I could do that equally well at a Club or at the Pathological. Loving, for its own precious sake, that knowledge which I trust will not be withdrawn from me in the place to which I am hastening, I come here to collect gratefully, from friends who do not think precisely as I do, facts and opinions by which my own scanty information and narrow views may be corrected and widened. In this spirit, I believe, we all work. Still, on the present occasion, I have chosen for this address a subject which, in its scientific aspects, is scarcely open to controversy, in favour of which I hope to enlist the sympathy and co-operation of men of all opinions. I have long been desirous to re-submit to your judgment the by no means novel suggestion that Medico-Topographical and Health

Histories for Districts and Towns, the publication of which was successfully conducted by the Government of India, would validly aid the great work of Public Health which has long been in progress throughout the British Isles. I may probably be met here by the objection—the fact that, even within the term of your own Indian Service, no such publications were issued by the Government of India, is evidence that this undertaking proved a failure, and was therefore abandoned. To this assertion, my reply would be—in India, as at Home, the discontinuance of a great work is by no means valid evidence of its failure. There, as here, Governments change at brief intervals, and new men bring new measures. There, too, it frequently happens that whatever was right in the government of A. is wrong under the rule of his successor B. Works like the three bulky volumes on the "Medical Topography and Statistics of the Madras Presidency," which I now place before you, stand as enduring monuments of the practicability of such a measure, and as evidence of its successful working.

Upon a plan suggested by the late Sir Ranald Martin, the Government of India directed, in 1835, that medico-topographical histories of Districts and Military and Civil Stations throughout British India should be prepared by medical men and published. The result was the promulgation of many hundred very useful pages, a few of which have escaped until now the ravages of the white ants. Among these histories, that in three closely printed volumes, which now lie before me, stands pre-eminent. Between 1842 and 1844 the Medical Board of Madras published this complete history of the medical topography and statistics of the whole of the Madras Presidency, founded upon reports by local medical officers. The vast labour of compilation was accomplished in three years by the Board's Secretary, Dr. George Pearse, most efficiently aided by Dr. Lorimer, Garrison-Surgeon of Fort St. George—each of these officers performing at the same time the proper duties of his own appointment. I particularly insist upon this fact as evidence that, upon a well-arranged plan and with the aid of a very few well-chosen men, the great, but in no way formidable, work of preparing a health-history for every district and town in the United Kingdom might be carried out at no very heavy cost, and with an expedition commensurate with the strength of the officers employed.

The Presidency of Madras alone succeeded in fully giving effect to the wishes of Government; but much good work in this direction was done by the separate action of medical officers in the other two Presidencies. Thus we have exceedingly valuable reports on the Medical Topography of Calcutta, by Ranald Martin, Duncan Stewart, and Pemble Strong; of Upper Scinde, by Kinloch Kirk and J. Sutherland; of Meerut, by John Murray, who, happily, is now a leading worker among ourselves; on Ajmere, by Irvine; on Oudh, by Donald Butter; on Sarum, by Rankine; on the Valley of the Indus, by Percival Lord; on Assam, by McCosh; on Kemaon, by Dollard and John McClelland. Still, as I have said, the Bengal and Bombay series were never completed. A large number of valuable minor topographical Reports of Districts and Stations in each Presidency, such as those published in the *Bombay Medical and Physical Transactions* for 1857-58, have appeared during the last forty years in Indian medical periodicals.

Here I may remark that, old as the whole of these Reports are, they are replete with facts and observations which, like every sterling truth in medicine, are of never-dying value. I have lately gone carefully through a very large proportion of these records, which I never had opportunity of doing in India; and I deeply feel that the result of this pleasant exercise is that I now, for the first time, believe that I have been enabled to take a large view of Indian disease, especially of its geographical disposition.

Merely as evidence that the undertaking which I am now proposing is by no means so gigantic or so costly as to be hopeless, I may mention that, in my work on the Means of Preserving the Health of European Soldiers in India, I have left a sketch of the health-history of every station for European troops in that dependency, this being a mere labour of love carried out in the spare moments of an official life which had no proper leisure. As a proof that I do not mention this little fact in a boastful spirit, and as a hint of the encouragement which labourers in this field may anticipate from authority, I may mention the criticism which my labours received from the Viceroy of that day. Inquiring



of a medical officer regarding some statistical point, his Lordship was asked, "Have you seen Dr. Chevers's work?" The reply was, "Humph!" with a significant upraising of the chin.

I need scarcely say that—quite apart from those pseudo-medical histories in which, during last century, were trumpeted the sanitary advantages of every English nook which, by virtue of the addition of a wheelbarrowful of rusty iron to a brackish pool, had become a "Spa"—the United Kingdom can boast of some excellent medical topographies. Still, these are chiefly the work of local ability and industry, and they by no means defend us Britons from the charge that we are far behind India in the work of Medical Topography. The proposal which I offer to your better judgment is, that for each of our districts and towns there should be prepared a concise but very comprehensive manual, illustrated by maps, in which would be recorded all needful geological and meteorological data; brief descriptions of the water-supply and systems of town and land drainage; a history of all reported epidemics, endemics, and epizootics, the dates of the first appearance and of the disappearance of the recent ones being accurately given; all that is worthy of recollection as illustrating vital statistics, especially recent death-rates; full health-histories covering the last five years; numerical lists of the prevailing diseases, with brief but clear accounts of those which point to the fact that the land is malarious, or the town air impure. In short, these little works should comprise every fact which tends to illustrate the medical topography of their localities. The maps should especially define with rigid accuracy the locality and original extent of all extant or reclaimed lakes, marshes, harbours, bays, estuaries, water-courses, and moats. The sooner maps of this kind are prepared, the better. The work of so-called "improvement" now advances so rapidly, and the information derivable from oral tradition is so uncertain and short-lived, that all authentic facts of this kind should be placed on record with the least possible delay.

Four hundred years ago, an encircling morass was in some respects useful to a town, forming, as it did, a considerable addition to its defences, and a means for retreat, supply, and relief. In time of peace, the marsh afforded valuable supplies of rushes, reeds, fish, and water-fowl. So we find Henry of Huntingdon giving to his native town a recommendation which would scarcely be held attractive in these times of sanitation. The town, he says, "surpassed all others in pleasantness, in the beauty of the buildings, *nearness to the fens*, and plenty of game and fish."

In the middle ages, a well-preserved fen was a valuable property. It is noticed by Whitaker that, from an inquisition taken in the time of the last Earl Warren, it appears that the meadow ground which lay in open field was worth five shillings an acre; the pasture-ground was enclosed, and worth only one-tenth of that sum; and the fishery, a small pond of four acres, was worth almost one-third more per acre than the best meadow ground. Writing in 1650, Fuller mentions that "an acre of reeds on the bankside is as beneficial as one of wheat." In Surrey, I have sat and read by the feeble light of a peeled rush dipped in grease, held in a simple apparatus which is represented in Chambers' "Book of Days." Formerly the richest pasture land near London was in the Isle of Dogs.

Our ancestors were evidently proud of their swamps, and were not ashamed to give districts and towns their right names, such as Romney Marsh, Slough, Burmarsh, Wapping-on-the-Wose, Keyingham Marsh in Holderness, Lambeth Marsh, and the like. Now, however, our Jerry Builders are more discreet. Having, by some subtle arrangement with Nature, provided that the whole of their building sites shall possess an inexhaustible dry gravel soil, they construct infinite Montpelier Avenues, Mount Pleasant Gardens, and Vales of Health. Since I returned from swampy Bengal, I have occasionally walked in some of these delightful modern sanatoria, and have been astonished at observing the manner in which, within my own recollection, modern enterprise has "improved," beyond all recognition, sites which our predecessors deemed utterly waste and irreclaimable. I may, without offence, mention one or two of these instances. Very lately I was admiring the architectural beauties of a popular city suburb, when a voice said gruffly, "A few years ago you couldn't go across that plaice without leaving both your shoes!" Some years

since, I, for my sins, found myself enjoying a round of watering-place delights in a beautiful seaside resort, which completely covers and conceals all the little ineligibilities of what, in my boyhood, was a dreary expanse of salt swamp, whereon it was evidently hopeless to grow cabbages, and which has now lost its honest eight-hundred-years-old English name of the "Abbey Marsh." This recalls to my memory "Pump's Marsh," which, now a most attractive watering-place, was in my youth an admirable field for lizard-hunting—its greatest drawback being that, for those tired with that noble sport, there was nothing to drink, the whole of the streams which guttered slowly out of its sedgy pools having the appearance, but none of the virtues, of the strongest black tea. Still again, I recollect the site of that long most popular and fashionable watering-place, Sweet-Spring-by-the-Sea, when it was an utterly abandoned marsh devoid of any living thing standing higher in creation than the water-rat and the yellow flag.

Each of these manuals should receive, annually, an appendix containing a brief but comprehensive health-history of the place, and giving all needful particulars regarding outbreaks of disease, fluctuation in the death-rate, sanitary improvements, and the like.

But for your courtesy, you would perhaps stop me here, and say, "Your plan is impracticable! It would please no one!" But nearly all of those whom I address have long since felt, and acted upon the conviction, that, in endeavouring to benefit mankind, we must not hope to please them. I apprehend that, in recommending to town authorities the adoption of this plan, which directly tends to serve the best interest of every member of the community, we shall find the whole of our auditors, from Mister Mayor to Master Cobbler, as stony-faced and as unappreciative as William the Conqueror and Wat Tyler would have been. Nay more, we must expect to be shouted down with cries of "What! suffer the publication of a book giving a bad name to our town, and pay for the printing!" "Your plan will raise our rates, and impair the value of everybody's property and business, depriving us of tenants and customers. You appear to wish to bring us all to ruin, and to reduce this place to the marsh which it was when our fathers occupied it fifty years ago!"

It does not seem very long since I sat at a meeting of a city municipality, and heard the following observations by a really very fine and clever old man: "This place has done very well for a hundred and fifty years without sanitation. I therefore propose, Mr. Chairman, that we resolve to defer the question of appointing a sanitary establishment for another hundred and fifty years, when it may be again considered." Here we have enunciated, in an unusually plain and candid manner, the feeling which still prevails in hundreds of aldermanic minds. I lately saw this old gentleman's statue, subscribed for by his admiring fellow-citizens,—it was a fine work of art. Every practical sanitarian is, however, proof against the blatant shallow-minded logic of short-sighted bores; but there is another obstacle which might possibly meet us, but which ought not to be formidable, because, assuredly, no one would intentionally place it in our way. Although I believe that no representative of our noble profession displays its humane philosophy with more enlightenment and self-devotion than the Officer of Health does, it has, in rare instances, appeared to me, when studying some of their reports, that a very little of the obstructive burgher narrowness has insensibly found its way into the minds of a few of these officials, and has caused them to regard the sanitary defects of their localities (which they, of all people, ought most to abhor and protest against) with overweening tolerance. Although this is, unquestionably, a bar to improvement, it arises from an error which is, in itself, venial and natural—the excessive development of a right feeling of admiration for that which is our own; an inclination to overlook and apologise for its defects, and a proneness to magnify its advantages; a tendency to be

"... to its virtues very kind,  
And to its faults a little blind."

In short, the foible of the men of Little Pedlington.

When I find a health officer, professing to write upon the remarkable salubrity of his very badly situated district, protesting that, in the month of August last, the mortality was under the annual rate of four in the thousand, and overlooking the fact that, within the past four years, the place was so direfully impested by a Zymosis as to call for a special inquiry by the Local Government Board;—when I see it declared



of a town which I know to be full of plague-spots, that, *but for a visitation of diphtheria*, its mortality-rate last year would compare favourably with the lowest in England;—when, I say, I find earnest, honest-minded men contending in this manner against plain facts, their mode of arguing reminds me of that of the Calcutta schipper who, on being told that he had made a remarkably slow voyage round the Cape, replied—“If you put aside our loss of a top-mast and do not count the weeks in which we were becalmed, you will find that my ship made, out and out, the quickest passage of the season.”

I believe that the establishment of the system now proposed would go far towards correcting this evil.

It is clear that I need not attempt to explain to an audience of eminent sanitarians the uses which these manuals would serve; but, as my remarks may be seen by others less instructed and experienced, I will pray you to bear with me for a few seconds while I offer one or two illustrations. In 1845, while I professed to practise in the parish of Lambeth, my father and I suffered from dysentery. I was then concerned in the editorship of one of London's two weekly medical periodicals; I was a member and active frequenter of five medical societies; I spent some hours of nearly every day of my life in communication with the best men at Guy's Hospital: and yet, strange to say, it was only about two months ago that I became acquainted with the fact, that in the seven years, 1840-47, Dr. Baly examined post-mortem many hundred cases of dysentery in the Millbank Penitentiary, situated not a mile from my residence. “Yes,” you may remark, “the oversights of some people are limitless!” Still, had Lambeth then possessed a health-history, I could hardly have remained ignorant for thirty-eight years of a fact which interests me personally. Again, imagine that an outbreak of Enteric Fever occurs on the twentieth day of a given month in Warwick, and that it is traced to pollution of the chief water-supply with sewage-matter: my first step in investigating this fact would be to consult the annual health-reports of the surrounding towns; and if I found that, many days previously, at the very beginning of that month, Enteric Fever had prevailed to an unusual extent in Worcester, Birmingham, Northampton, Bedford, Oxford, and Gloucester, or in more than one of those places, I should say that the fact tended to support a heresy which I confidently maintain, to the effect that Enteric Fever is of aerial epidemic origin, and that Typhoid stools and sewage-filth are only operative as excitants of that disease.

Again, should it be reported that, Cholera existing at Alexandria, a ship from that port had reached Southampton on October 20, and had landed a sailor who died of cholera on the 22nd of that month, whereupon the people of Southampton became impested,—I should consult the contemporary health-histories of the neighbouring inland towns, and, if I found that, ten days previously, unmistakable cases of Cholera had occurred in any of these, it would add another fact to the many whereon I ground the strong belief which would enable me to declare that the sailor did not bring the plague to Southampton, but that the pestilence awaited his arrival there, and killed him under its law that new-comers are almost invariably its first victims.

I have no doubt that our esteemed colleague, Dr. Buchanan, has, in his office, all data needful in pursuing an inquiry of this kind; but is it possible to obtain such information elsewhere? If so, I, for one, know not where to look for it. I am aware that a few months ago Enteric Fever raged synchronously in Paris and in Egypt, and I have ever since desired to know whether England also suffered at all remarkably from this pest at the same time; but I could only learn this with precision by going about a great deal, and by giving needless trouble to over-worked men. Under the system which I propose, I should possess the needful information on my study table. Again, I long ago observed facts in India, which led me to believe that neurotic paludal asthma is aggravated by residence at the seaside. The great experience of Dr. E. Headlam Greenhow has convinced him that this law obtains in England. Knowing that asthmatics frequently escape suffering on long voyages, I think that I am justified in inquiring, are certain localities hostile to the asthmatic because they are maritime, or because they are paludal, as so many English watering-places are? If I could examine the health-statistics of all our watering-places, I might, not very improbably, arrive at a result useful to many grievously afflicted persons, by throwing great additional light upon the

very important question of finding breathing-places for asthmatics; but, at present, my inquiry is at a standstill.

Read with sufficient care, the periodical supplementary reports would afford to every medical man in the empire a complete view, frequently renewed, of the geographical distribution of disease throughout these Islands, and would add validly to his claim to be considered as a man of better information than the President of the Epidemiological Society can, at present, hope to be. Properly carried out, this work ought to become an invaluable aid in fulfilling the noble objects of our Society.

Complete series ought to be in the possession of every officer of health, and to be available in all public libraries and museums.

No man living values honest sanitation or appreciates the good which it is very slowly effecting more warmly than I do, but none who have studied epidemiology fairly can fail to join me in exclaiming against the fatuous over-confidence of shallow people, who ought to know better, who attribute every temporary mitigation in the incidence of disease to improved sanitation. He who has been tempted to declare that he has succeeded in stamping out the erysipelas which used to impest his hospital (a false position which I once saw occupied, to his speedy discomfiture, by a talented surgeon), and is shown, in the Health-History, that the disease has lately attacked the neighbouring hospitals, and sees that it has now invaded his own, will wish that he had not spoken, and had kept his short-sighted exultation to himself.

I apprehend that some of my friends, on hearing that I recommend the publication of *Health-Histories of Towns*, will suspect me of preferring old facts to new ones. This, however, is a charge of which I consider myself guiltless. I have never valued or brought forward an antiquated medical fact unless I considered that it threw distinct light upon our daily professional work.

Undoubtedly, well-chosen and judiciously-sifted historical facts would claim a place in the *Health-Histories*. Thus, in describing a pleasant breezy exercise-ground for troops, upon which multitudes of handsome dwellings now abut, it would have to be stated that, a hundred years ago, men at drill used to be struck down by the pestilent exhalations from a neighbouring morass, which has now been very insufficiently improved, but which I remember in all its pristine deadliness. When I had the privilege of addressing you a year ago, I spoke of the natural disadvantages of the site upon which Southwark is built. When the *Health-History* of that locality comes to be written, the following additional facts, standing two hundred and ninety-nine years apart, ought to be cited. Suffolk Place and old St. Thomas's Hospital very nearly faced each other on either side of the great highway at the southern foot of Old London Bridge. An able writer, Mr. William Rendle, has lately given us (a) an old medical case which is most useful as illustrating the sanitary condition of that locality early in the sixteenth century.

In 1514, Charles Brandon, Duke of Suffolk, married Mary of England, the French queen. They resided occasionally at Suffolk Place, notably in 1519 and 1522. The writer tells us that Southwark Palace must have been built in an unfortunate place. South of the river, the fields were freely intersected with small streams and ditches; bridges crossing these streams are shown in the earlier maps, here, there, and everywhere. Not unfrequently, the locality, being below the level of the river, was flooded. The district was, of course, unhealthy, and was always severely visited by the various plagues which never for long left England.

The insalubrity of the place is most likely the reason why Mary was so little in Southwark; as it was, she doubtless suffered from the marshy surroundings of her palace.

“In 1518” [when she was twenty years old] “someone writing of her says, ‘it has pleased God to wyesset her wyth a nagu’ (ague) ‘wyche has taken her Grace hewarre’ (every) ‘third day.’ She suffers from disease and pain in the side, a common result of persistent ague, but we are pleasantly told that her brother's kindness takes away a great part of the pain. . . . The French queen gets worse and worse; physicians are consulted, but they do her no good. Writing from Croydon, Suffolk sadly says she has a disease in her side and is very ill; he has been twice on his way to the



Court, where he, for the time, seldom comes, and she sent for him to come hastily back, and will not have him away. She never gets better, but finally dies in June, 1533," after fifteen years' suffering from paludal splenic cachexia. Then in 1813, giving an account of old St. Thomas's Hospital, Sir Gilbert Blane described it as situated on a track of ground which was, originally, swampy, and no doubt aguish. In ten years, 192 cases of intermittent fever were admitted in Blane's wards alone; he, however, considered that these were not, principally, from the local population. Such reports as the following are also noteworthy, when well authenticated. On Saturday, the 23rd June, 1883, Sir William Knollys, Usher of the Black Rod, died of Intermittent Fever at his official residence at the House of Lords.

With a view to obtaining the best information regarding the Health-Histories of districts and towns, it would be well to seek the co-operation everywhere of the clergy, archæologists, and librarians.

I cannot doubt that, although the publication of these books would immediately encounter strong opposition from local stolidity and ignorance, it would not be very long before the valid utility of the measure would, by obviously enhancing their best interests, command the favourable attention of the most bigoted. At starting, such an undertaking ought to be received in a friendly spirit by all owners of healthy localities; while those holding improvable land and house-property would soon begin to find that the value of their estates was considerably raised, under reclamation, by augmentation of their rents. Those who absolutely oppose reform may well be allowed to howl until public opinion or the pressure of still higher authority constrains them to stand out of the way of progress. Recently, Dr. Samelson has directed attention to the fact that Manchester continues, in turn with Liverpool, to hold the position of the most unhealthy town in England, and has shown, by official evidence, that the unsatisfactory condition of the dwelling-houses, new as well as old, of the mass of the people must be regarded as one of the foremost causes of ill-health.(b) To the citizens of Manchester, that time-honoured sanitarian Edwin Chadwick has also very lately addressed arguments(c) which ought to awaken them to their real position as nothing else can until the peal of the archangel's trumpet strikes their ears, telling them that, had they not lavished their funds upon unproductive works, they might, ere now, have reduced their present average death-rate by ten in the thousand. The names of Chadwick and Samelson ought to have permanent record in the Health-History of Manchester as standing prominently among those who had the courage to declare the city's malady, and the sagacity to demonstrate its remedies.

When the sanitary shortcomings of a place, and the means of remedy, have been for some time clearly set forth in a popular work within the reach of everyone, it is probable either that the inhabitants will be shamed or convinced into reform, a healthy rival spirit of comparison and emulation arising between town and town, or that local benefactors will generously relieve them of the work.

When the promulgation of these Histories shall have accustomed people to the candid and fearless exposure of sanitary defects, we shall probably hear nothing more of that morbid sensitiveness which designates the most friendly of all criticism as libel. We might then learn to offer a public banquet and a service of plate to any chiel intelligent enough to spy a hole in our civic coats, and to suggest means for its repair.

If it can once be decided that a publication of this kind ought to be instituted, the manner of conducting it might be readily planned. While every district and important town would have its "History," these little works would be combined in one or two volumes for each of the three Kingdoms, purchasable at a remunerative price.

It appears clear that the system which I indicate could only be successful under the control of Government.

I think that health officers and medical men desiring to hold these appointments would contribute nearly the whole of the local articles, which, if worked out with due care, and fully acknowledged, would contribute much to the writers' professional reputation.

It is probable that nearly the whole of the needful Statis-

tical, Meteorological, and Geological data stand ready for collation.

I believe that a director for each Kingdom, posted at London, Edinburgh, and Dublin, efficiently supported by officers of health, and assisted by a staff of about four highly qualified assistants, could prepare and publish the first edition of these works within a twelvemonth of the time of starting.

The cost of printing the local histories is doubtful; but I think that the average expense ought not to exceed £20. The cost of the annual supplementary reports would be small, and two officers at head-quarters could edit them. Consequently, there would be no heavy expenditure after the first eighteen months.

In the cause of suffering humanity, I should be glad to see this plan carried into effect not only in the United Kingdom, in India, and in our Colonies, but also in America and in every country throughout the civilised world.

## LECTURES

ON

## THE PROTECTIVE AND LACRIMAL APPARATUS OF THE EYE.

*Delivered at the Royal College of Surgeons.*

By HENRY POWER, M.B. Lond., F.R.C.S. Eng.,  
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(Concluded from page 511.)

### LECTURE III.—PART III.

THE influence of the emotions has been carefully discussed by Darwin. He has pointed out that very young children do not shed tears or weep, but this is not exclusively due to the lacrimal glands being as yet incapable of secreting tears. He states that he first noticed this fact from having accidentally brushed with the cuff of his coat the open eye of one of his infants when 77 days old, causing this eye to water freely; and though the child screamed violently, the other eye remained dry, or was only slightly suffused with tears. A similar slight effusion occurred ten days previously in both eyes during a screaming fit. The tears did not run over the eyelids and roll down the cheeks of this child whilst screaming badly when 122 days old. This first happened seventeen days later at the age of 139 days. I have, however, noticed a case in which an infant cried before one month was completed, the tears running freely down the cheeks. In some children observed for Darwin, in one the eyes became slightly suffused at the age of only 20 days; in another, at 62 days. With two other children the tears did not run down the face at the ages of 84 and 110 days; but in a third child they did run down at the age of 104 days. Darwin was positively assured in one case that tears ran down at the unusually early age of 42 days. It would appear, he remarks, as if the lacrimal glands required some practice in the individual before they are easily excited to action, in somewhat the same manner as various inherited consensual actions and tastes require some exercise before they are fixed and perfected. This is all the more likely with a habit like weeping, which must have been acquired since the period when man branched off from the common progenitor of the genus *Homo* and of the non-weeping anthropomorphous Apes.

W. Preyer, in his very interesting work entitled "*Die Seele des Kindes*," in which he records numerous and carefully made observations upon his own children, commencing a few minutes after birth and continued for years, states also that the time of the first appearance of tears varies greatly in different children. In his boy he observed a flow of tears for the first time on the twenty-third day whilst he was screaming violently.

The glands are larger, according to Frerichs, in women than in men—which is perhaps associated with their more emotional proclivities.

Trousseau—and Trousseau alone, so far as I know,—who was one of the acutest observers, has of late years strongly

(b) *Medical Times and Gazette*, vol. ii. for 1883, page 197.

(c) "On Sanitary Administration and on its Condition and Results in Manchester," 1883.



insisted on the importance and semeiological value of tears in infancy. We may, according to him, lay down the general proposition that when an infant weeps its disease or malady is destitute of gravity, and that the contrary holds good when it no longer weeps. "When you find," he says, (a) "that in a young subject, who has hitherto wept, tears no longer appear when you irritate it; if suddenly, the conditions remaining the same, the eyes become dry, dangerous results may be anticipated of some kind or other. In this you will never be mistaken, except of course in those occasional cases where the child does not weep at all when in health. When, on the contrary, after having satisfied yourself of a bruit, of dulness of the walls of the chest, an hypertrophy of the liver or of the kidney, tympanitis, or other grave disease, you see the infant shed tears, you may give a favourable forecast, for it is the indication of approaching convalescence."

The only recent experiments that have been undertaken by a skilled observer on the tears in Man have been those of Magaard, (b) who had at his disposal a case in which, owing to a deformity of the lid, the tears could be obtained in a pure state, and not, as in previous experiments, mingled with the secretions of the conjunctival and Meibomian glands. Magaard's case was that of a man aged fifty, who in 1866 had an attack of conjunctivitis of the left eye. Six months later the right eye became similarly affected without apparent cause, and he applied for relief at the Ophthalmic Hospital of Freiburg. The note then taken was to the effect that the patient was suffering from ectropion, with partial thickening of the edges of the lids, and diffuse haziness of the left cornea. Sulphate of copper was employed. The left eye gradually failed. The right retained some vision; but when Magaard saw him there was great eversion of both lids of this eye, so that the openings of the lacrimal ducts were exposed, and their position could be recognised by the exudation of pearly drops of fluid.

To determine the reaction of this fluid, the whole surface of the lids was carefully washed with lukewarm distilled water, until, indeed, the surface gave a neutral reaction. The ducts were then gently compressed, and the fluid which exuded was found to be invariably rather strongly alkaline.

Attempts were then made to determine the quantity of the secretion, first by gently stroking the ducts towards their orifices, and then noting the time which elapsed before the reappearance of a pearly drop at their orifice. On the first day, this occurred, on the average, at the end of three minutes. After the introduction of a little calomel in powder into the eye, the secretion became more abundant, and the drops reappeared in two minutes. A few days were now allowed to elapse, and, on again timing the rapidity of the secretion, it was found to occupy about one minute more than before. On touching the conjunctiva with a stick of alum, the drops appeared at the orifices of the ducts, after their evacuation, in about two minutes and a quarter; and when it was touched with sulphate of copper, they appeared in about one minute and one-third. Stimulation of the nasal mucous membrane increased the rapidity of secretion, so that if, after simply stroking them, the drops appeared after the lapse of four minutes and a half, after the application of alum and copper sulphate they appeared in two minutes and a half. On the following day various vapours were applied, by means of a roll of blotting-paper, to the nasal mucous membrane. When sulphuric ether was used the first drop appeared in three minutes and a quarter, with caustic ammonia after three minutes, and with glacial acetic acid after three minutes and a quarter—hence at about the same time with each of these reagents. It was of no consequence whether the right or the left side of the nose was stimulated.

The effect of stimulating the retina by the light of the sun, reflected from white and from coloured papers, was then tried. The day happened to be one with a light cloud over the sky. Before exposure the droplets reappeared in about seven minutes, but after exposure to the light reflected from white paper they appeared in five minutes; after exposure to rays passing through a light-green glass, in three minutes; and when a light-blue glass was held before the eye, in four minutes. With dark glasses the time was the same as at first.

Magaard proceeded to make some more exact experiments,

in which the amount of fluid secreted under different conditions was determined by stroking the ducts towards their orifices at the expiration of every minute, and absorbing the fluid squeezed out with a small tube by capillary attraction. The height of the column was precisely measured, and the contents were then blown out upon blotting-paper. Considerable variations occurred from minute to minute. Thus in these experiments the numbers ran as follows:—

	I.	II.	III.
After 1 minute	6.8 mm.	10.5 mm.	4.0 mm.
" 2 "	15.2 "	7.5 "	5.1 "
" 3 "	7.9 "	8.5 "	2.3 "
" 4 "	2.6 "	9.5 "	1.5 "
" 5 "	6.7 "	7.5 "	2.1 "
" 6 "	2.8 "	5.7 "	0.5 "
" 7 "	6.1 "	1.3 "	8.3 "
" 8 "	8.9 "	0.5 "	8.0 "
" 9 "	4.5 "	2.0 "	4.2 "
" 10 "	6.1 "	6.7 "	2.0 "
	59.5 mm.	59.7 mm.	38.0 mm.

The mean of six such experiments (each lasting ten minutes) gave the height of the column of 41.0 mm. in the capillary tube, which was 4.26 cm. long, and had a capacity 0.023 grammes. The 4.10 cm. of lacrimal fluid amounted therefore to 0.0221 grammes of fluid. This quantity was secreted, on the average, every ten minutes; and hence, if the secretion were considered to be continuous, and if the conditions remained the same, each lacrimal gland would secrete 3.18 grammes, and the two glands 6.4 grammes of fluid per diem.

It thus appears that the activity of the lacrimal, like that of other glands, is liable to great variation, amounting to as much as a difference of 0.01 to 2.94 mm. per minute. There is no doubt that the activity varies greatly with mental conditions. He observed some increase after food, and also after exercise had been taken. Even after the act of yawning the quantity was augmented for some minutes, the augmentation being probably due, as he suggests, rather to some change in the circulation than to a change in the innervation. The quantity diminished with high temperature of the surrounding atmosphere.

Magaard made some experiments with atropine, which, as is well known, has a powerful influence on the process of secretion. He found that the administration of atropine slowly caused diminution in the amount of secretion; whilst eserine, on the contrary, removed the inhibitory influence of atropine, and quickly occasioned an increase.

Stimulation of the cervical sympathetic by the faradaic current was not followed by any very well-marked result, but, on the whole, the quantity of the secretion seemed to be somewhat increased, and, in some of the experiments, to be rendered cloudy.

The best analysis of the tears that has been made appears to be that of Frerichs, though it is now of somewhat ancient date (1846). He gives it as follows:—

One hundred parts of tears contain—

	I.	II.
Water ... ..	99.06	98.70
Solids ... ..	0.94	1.30
Epithelium ... ..	0.14	0.32
Albumen ... ..	0.08	0.10
Sodium chloride ... ..	0.72	0.88
Alkaline phosphates ... ..		
Earthy phosphates ... ..		
Mucus ... ..		
Fat ... ..		

Hoppe-Seyler, however, in his "Physiologische Chemie," remarks that no satisfactory analysis of the tears has been given, since it is difficult to obtain them in sufficient quantities from Man, and still more difficult from Animals. In all works, he says, the analysis of Lerch is given, which is insufficient. Lerch gives—water, 980; albumin, 5; and sodium chloride, 13.

If tears, he adds, be allowed to drop into water, a precipitate falls, which either consists of mucin or, more probably, of a globulin. He regards the secretion of tears as being closely allied to the saliva.

Magaard states that on boiling tears some coagulation

(a) Gazette des Hôpitaux, 1848, page 53.

(b) Virchow's Archiv, 1882, page 258.



may be observed to take place, and he satisfied himself of the presence of albumin and of chlorides. He was unable to demonstrate the presence of phosphates. Quantitative analysis gave—water, 98.12; organic compounds, 1.4639; salts, 0.4161.

It is no part of these lectures to take up the tears in an historical point of view, nor to tell how St. Thomas Aquinas was satisfied that no tears would be shed after the Resurrection; that subsequent authors believed that the tears were the condensed vapours of the brain, that those which passed off by the upper canaliculus came from the brain and the eyes, whilst those which passed away by the inferior canaliculus came from grief and the lower part of the body; how Petit maintained that they were the normal mode by which the fluid that he believed filled the pericardium was eliminated from the body; or other curious errors that have been from time to time promulgated.

The secretion of the Harderian gland consists, according to Kamocki, of a clear fluid with large drops and fine granules. A dark coagulated mass is seen in the lumen of the tubes in transverse sections of coagulated glands that have been made clear by glycerine, which is finely granular in the white part of the gland, and contains larger and smaller drops in the pars rosea. After removal of the fat, the previously dark contents clear up, and appear in the pars alba finely granular, and in the pars rosea in the form of a close network. (c)

In regard to the mode of excretion, it would appear that the lymphoid structures do not take any active part in the formation of the secretion in Rodents, and that the gland-cells themselves do not undergo any lively process of proliferation or any fatty metabolism and disintegration, but that the cells of the Harderian gland are as stable as in other glands furnishing fluid secretions. The secretion is probably formed within the cells, and is simply expelled from them into the lumen of the ducts, without any loss of vitality on the part of the cells, or any destruction of their substance. On the contrary, each cell continues to discharge its functions for a period the duration of which we have at present no data for even approximately determining. The mode of secretion, therefore, resembles that of the mammary gland, and is different from that which is observed in the sebaceous and Meibomian follicles. In these glands the lumen of the acini, in well-coloured and transparent sections, is seen to be completely filled with cellular elements, in which a continuous process of disintegration of cells and nuclei may be distinctly perceived, proceeding from the periphery towards the centre, and onwards to the excretory ducts. Moreover, in these the layers of cells in immediate juxtaposition to the membrana propria exhibit, when carefully examined, some karyolytic figures.

Kamocki has further attempted to gain some insight into the nature of the secretory process, and especially to determine whether the visible variations in the quantity and size of the fat-drops in the gland-cells result from varying stages of rest, or of increased secretion occasioned by stimulation of the sympathetic, by the subcutaneous injection of pilocarpine, and by ligature of the excretory duct of the Harderian gland; but he does not appear to have obtained any satisfactory results. After ligature of the excretory duct there may be observed, as consequences of the stasis of the secretion, dilatation of the ducts, flattening of the gland-cells and disappearance both of the fat from their interior and of the plexiform arrangement of the protoplasm, strongly granular metamorphosis of the cells, great diminution in the capacity for staining of the nuclei, infiltration of the parenchymatous connective tissue with lymphoid cells, and, in short, commencing atrophy and inflammatory degeneration of the glands. A discharge of the pent-up secretion by rupture of the gland-ducts into the parenchyma of the gland is often observed. He did not observe keratitis to follow the arrest of the secretion.

The last point to which I must refer is that of the mechanism by which the tears flow from the conjunctival sac into the nose. At first sight the evidence that the tears do really pass into the canaliculi is not quite clear, for, when the lacrimal secretion is at all increased, the tears flow over the cheeks, and it might be supposed that the quantity ordinarily secreted is just sufficient to compensate for the evaporation from the surface of the conjunctiva. Against this, however, is to be put the fact that the canaliculi and

nasal duct are, as we have seen, extraordinarily constant in position and relations in all the terrestrial Vertebrates. Secondly, that when from any cause the nasal duct or the canaliculi are occluded, the same side of the nose is felt to be remarkably dry and hot; and, thirdly, that certain substances (such, for example, as atropin), when a solution is dropped into the sac, may be recognised by the taste, or produces dryness of the fauces.

The causes which lead to the entrance of the fluid into the canaliculi have been the subject of much discussion, and several conflicting theories have been broached to explain it. These theories may be reduced to six—the siphon theory, the exhaustion theory, the capillary action theory, the muscular action of the canaliculi, the action of the orbicularis, and the compression theory.

The older writers suggested that the entrance of the fluid was due to a kind of peristaltic action on the part of the canaliculi themselves; but there do not appear to be any muscular fibres adapted for this purpose—at least, there is no regular disposition of circular and longitudinal fibres, which seems to accompany peristaltic action in most instances, even if it is not essential to it.

The syphon theory is stated to have been proposed by Petit, but upon examining his work I have been unable to find any observation that exactly bears out this statement.

Hasner remarks that the puncta lacralia are surrounded by contractile tissue, which forms a dense felt of fibres. These fibres by their contraction prevent the entrance of large or foreign bodies into the canaliculi, though they do not exactly form a sphincter, nor, even when very strongly stimulated, close the orifice entirely. Hasner adds—as it appears to me, somewhat inconsistently—that they have, indeed, a precisely opposite function, for they serve to keep the puncta constantly patent. They preserve the puncta and canaliculi, when covered by the tears, entirely passive. The entrance of the tears into the canaliculi is exclusively effected by the action of the orbicularis. This causes the canaliculi to suck in the tears; and this action is aided by inspiration, which rarefies the air contained in the passages, and causes the air to stream in, carrying with it the tears.

The exhaustion theory has been adopted by many; and this theory, as well as the phenomena of disease, and the occurrence of strictures at various points, has led to the belief of the existence of many valves, which have been described by various authors. These are stated to occur in different parts of the lacrimal passages, the position of the valves generally being such as to permit the tears to flow downwards, but to resist regurgitation, or the entrance of air or mucus from the nose. The descriptions given are often detailed, but I shall not do more than just indicate their position, because later researches have practically disproved their existence, and because I believe their functional importance to be very small. The downward flow of the tears is well provided for, and there seems no reason why regurgitation should take place, and hence no physiological reason for their presence. Four valves have been described—the valve of Foltz, the valve of Rosenmüller or of Arnold, Arlt's valve, and Hasner's valve.

FOLTZ placed a valve at the bottom of the little pit at the tarsal orifice of the canaliculi, and considered that it was attached to the outer wall, and opened downwards.

ROSENMÜLLER (1797) placed a valve at the upper margin of the opening common to the two canaliculi in the lacrimal sac, the free margin of which was therefore dependent in front of the opening.

ARNOLD admitted the existence of a valve at the same point, but considered that its attached border was at the lower border of the opening, and that its free border therefore rose up in front of the opening. BÉRAUD named this valve the *valvula superior sacci lacralis*; and Foltz went so far as to describe a small knot in the centre of its free border, resembling the *nodulus Arantii* of the semilunar valves.

ARLT (1850) described a valve (which was subsequently named the *valvula inferior sacci lacralis* by Béraud) at the point of junction of the lacrimal sac with the nasal duct. The latter observer considered it to be inconstant.

Lastly, HASNER maintained the existence of a valve at the inferior or nasal orifice of the nasal duct. He considered it to be demonstrable by removing the outer or lateral wall of the nasal duct, when it may be seen depending from the inner bony wall and covering the orifice.



The tears have not completed their function when they have moistened the surface of the eyes and traversed the lacrimal canals, for the moisture which they afford to the nasal mucous membrane subserves the important purpose of charging with watery vapour and warming the inspired air.

The development of the Harderian gland of Rodents commences, according to Kamocki, coincidently with that of the lacrimal glands, immediately after the formation of the lids, and before their closure. It proceeds, like that of the compound acinous glands, from a simple tap-shaped rudiment, and its further development presents no special or peculiar characters. The branched solid gland processes composed of cells subsequently obtain a lumen, probably through mucous metamorphosis of the central cell-layers, whilst growth and the formation of new gland-buds progresses at the periphery. After the appearance of the lumen the ducts are lined by a double layer of cells, which subsequently become reduced to a single layer. The protoplasm of the cells is very granular, but does not as yet contain any fat-cells, which first appear when the gland begins to fulfil its function. The glands of young Rats, which are born blind, are not as yet completely developed, and contain no fat. The glands first assume their normal form, and their granular colouring-matter first appears in the lumen of the ducts, after the opening of the palpebral fissure. The first rudiment of the white and red parts of the gland of Harder, in the Rabbit, is undoubtedly single, and not double.

The very variable position of the inferior opening of the nasal duct accounts for the operation of catheterisation having become completely obsolete; for if, when the wall is removed and examined with the naked eye, it is sometimes, as Sappey states, almost impossible to discover it, it may well be imagined that any attempts to introduce a probe in the living subject are sure to be attended with laceration of the mucous membrane, if not by more serious effects.

### ON A THIRD USE OF TURPENTINE.

By Deputy Insp.-General BRINSLEY NICHOLSON, M.D.

WHEN re-writing the short article on certain uses of this drug, which appeared on September 1 in No. 1731 of the *Medical Times and Gazette*, I unaccountably forgot this third use, noted in the paper I had first written and mislaid.

3. A soldier was affected with aneurysm, as well as I can remember, just where the artery dips down into the popliteal space. The regimental surgeon being obliged to go away on three days' leave, I, from a neighbouring garrison, was deputed to supply his place, as it was feared that the aneurysm might give way. On arrival, I found a man of fairly made frame, but looking rather thin, and pale and sunken about the face. A well-fitting compressor compressed the artery at the usual point in Scarpa's triangle, and there existed a pulseless, but fluid, aneurysm, about the size, I think, of a swan's egg, but without, as I was glad to find, any symptoms of giving way. On inquiry, I found that the compressor had been on for at least three weeks—I believe nearer five,—but without any coagulation having been observed. His diet had been low and monotonous—I think the "low diet" of army hospitals. His pulse also was not strong. Thinking it better that he should have a more generous supply of food, and one containing more vegetables, with a little light wine, I found that he was constipated; and therefore, as one of the quickest and least depressing, if not stimulant, medicines, ordered him a terebinthinate enema.

Next morning, one of the assistant-surgeons, earlier than myself, met me with the unexpected news that the aneurysm had solidified, and, on examination, I found it not only solid, but firmly so. On the third forenoon, however, when I left, it had become fluid in its upper part, to the amount, say, of rather more than a teaspoonful. I heard nothing more of the case, except that some time afterwards the limb was amputated above the aneurysm.

The coagulating power of turpentine had been known to me, but, when giving it inwardly, I was not prepared for such and so sudden an effect in an aneurysm at rest. No doubt I should have followed up the enema by giving turpentine by the mouth, but the result being an apparently firm solidification of the tumour, and it being to me a wholly new experience, I waited too long. I venture, however, to think that the result is worthy of being borne in mind in any similar case, and bettered.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### ST. BARTHOLOMEW'S HOSPITAL.

#### STRANGULATED INGUINAL HERNIA—OPERATION —RECOVERY.

(Under the care of Mr. HARRISON CRIPPS.)

[From notes by the Dresser, Mr. MATHEWS.]

HENRY N., aged seventy-five, was admitted October 10, 1883, under the care of Mr. Langton, and transferred to that of Mr. Cripps.

*Previous History.*—Patient applied with an inguinal hernia, which had been down five days. He had been seen by a medical man, who had tried the taxis without success. The hernia dated back about nine years; it frequently came down, but had always been easily reduced on former occasions.

*Present Condition.*—An aged man with white hair. He has a large irreducible hernia in the right inguinal (scrotal) region. He is vomiting matters with a distinctly faecal odour. After anæsthesia, Mr. Cripps again tried the taxis. Failing to reduce the bowel, he cut down on to the sac, but without opening it. The constriction was found to be at the external ring. After division the bowel was reduced. The patient was somewhat collapsed; his pulse was weak and intermitting.

October 11.—The patient has rallied somewhat; he has had a fairly good night. He is fed with nutrient enemata. The wound dressed; it is looking healthy.

12th.—He has passed a good night, and appears much better. Hiccough has passed off. Wound dressed; there is no tenderness over it or over the abdomen; no discharge. He is now taking essence of beef by the mouth. No trouble with his urine.

15th.—Mr. Harding (the House-Surgeon) removed some of the sutures. Wound looking healthy. The man's general condition satisfactory.

The patient continued to make satisfactory progress in every way.

29th.—The wound is quite healed.

*Remarks* (by Mr. Cripps).—Aged patients appear to bear the operation for strangulated hernia better than any other of the major operations. In the case narrated the patient was a feeble old man, and had had faecal vomiting for four days; nevertheless, he recovered without a bad symptom after the operation. Doubtless his chance of life was much increased by its being possible to replace the hernia without opening the sac. A week or two previous to operating on Henry N., I had operated upon an old gentleman of seventy-six for a strangulated bowel. In this case, not only was the sac opened, but the gut was subjected to much handling, owing to the difficulty of returning it into the abdominal cavity, the operation being a prolonged and severe one. Nevertheless, this patient, as in the first case, recovered without causing a moment's anxiety.

#### RICKETS—GENU VALGUM—OSTEOTOMY.

(Under the care of Mr. CRIPPS.)

[From notes by the Dresser, Mr. Fox.]

Eliza M., aged four years, was admitted on September 19, 1883.

*Present Condition.*—The little girl is very anæmic and rickety. She has enlargement of the ends of the long bones, most marked in the radii. She has a well-marked genu valgum, the left leg deviating from the mid-line more than the right leg. When the thighs are approximated, there is an interval between the malleoli of about nine inches.

September 22.—Mr. Harrison Cripps performed MacEwen's operation, using a saw, however, instead of a chisel. The two limbs were operated on at the same time. There was no rise of temperature.

26th.—Wounds re-dressed; both look quite healthy; there is no suppuration. The child's general condition is excellent.

October 2.—Going on well. No pain; no discharge.

13th.—Wounds re-dressed. That on the right limb is found to be healed; that on the left has not quite healed.



*Remarks* (by Mr. Cripps).—A fine saw has long been in use for subcutaneous division of bones, notably by Mr. Adams and Mr. Gant. It would seem, however, that the chisel as used by MacEwen is a more favourite instrument among London surgeons for dividing the femur for genu valgum. I doubt whether it is an improvement on the saw. The objection to the use of the chisel appears to me to lie in the difficulty of estimating the extent to which it has divided the bone, and therefore the amount of force necessary for breaking through the remaining portion. If the bone be insufficiently divided, and violence is necessary for breaking the remainder, there is always a risk, when the fracture occurs, of driving the sharp fragments into dangerous proximity to the vessels—an accident which I have seen subsequently followed by hæmorrhage. With the saw, on the other hand, it is possible to judge with greater accuracy as to the extent to which the bone is divided. The theoretical objection which might be raised, that the *débris* from the saw would retard the healing of the wound, I have found to vanish in practice, for, in all the cases in which I have used the saw, the wound has healed by first intention without disturbance.

*Cheques or Post-office Orders should be made payable to Mr.*  
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THE MEDICAL TIMES AND GAZETTE is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

Medical Times and Gazette.

SATURDAY, NOVEMBER 10, 1883.

THERE is not a doubt that the custom of publishing signed medical bulletins in the daily papers has greatly extended during recent years. They used to be reserved for the illnesses of great personages, whose names were in everyone's mouth, and on whose lives great interests depended. Lesser men were allowed to glide quietly into the oblivion of the tomb, with no more than the customary notice in the *Times* when they were gone. All this is changed

In the case of published bulletins it is different, for there it is probably quite as often due to the initiative of the doctor as to that of the friends of the patient that the paragraph finds its way into the papers. If the profession could be polled on this subject, a vast majority, we believe, would avow their entire disapproval of the system. But at present their lips are sealed. If one of them raises his voice against the practice, he is silenced by the obvious retort—"Sour grapes, my dear sir!" But it is a low view of professional right-feeling which holds that no doctor would resist the temptation of having his name published far and wide as the chosen attendant of this or that lady or gentleman of fashion. It is not only a low view—it is a false view. For there are many successful practitioners who not only do not court, but who absolutely decline, this cheap means of publicity. The fact that a large number of public characters are still allowed to shuffle off their mortal coil without any intimation of the names of the practitioners who assisted at the process, shows that some doctors at least can prevent such publication. We know, as a matter of fact, that the leading physicians do their best to keep their names out of the papers, and not invariably without success. But the question is, whether all ought not to make a stand against this novel custom, to discourage and to prevent it. It may be argued that the feeling which undoubtedly exists in the profession against medical men advertising themselves is an antiquated prejudice, which is doomed to disappear as our institutions become more Americanised. It may be pointed out that when the members of other professions find themselves in positions of trust and eminence, they are allowed to reap what little advantage may accrue to them from the fact of their success being given a wide publicity. No *cause célèbre* passes through the law courts but the names of the opposing counsel are trumpeted aloud by the daily press; no big bridge is built or palace erected but the name of the architect is in everyone's mouth; college tutors and private crammers ride into reputation on the backs of their successful pupils; and, even in that profession which teaches us that fame is a snare, the name of the divine



under whom Royalty has sat is duly announced each week, and each week a list of preachers at the chief London churches appears in the daily papers. What is not interdicted in these professions, it may be argued, need surely not be thought wrong in that of medicine. No one ever said it was wrong. The utmost contention is that it is not expedient. And why? First and foremost, because a large number of practitioners have a very strong objection to it, and, in a matter like this, feeling is a valid argument. Secondly, there is no public advantage to be gained by it. The builder of a palace, the winner of a lawsuit, the tutor of a wrangler, is tested by his work; he has no other means of making his excellence known, and the fact that he has succeeded well once is a very fair argument that he will succeed equally well again. It is not so, however, in medicine. If practitioners are content to be judged by their success or failure in a single case, let them advertise. But no one except a fool condemns a doctor because a case died, or pins his faith to him because a case recovered, while he was in attendance. Other professions have to deal with the devices of men, and men are the only possible judges of their success. We, on the other hand, have nature to deal with, and nature for our judge. We have to work with forces that are imperfectly understood, and to condemn us or to extol us for the result in a single, yea, even in a dozen cases, is like passing or plucking a schoolboy on the strength of his succeeding or failing in construing a detached line of *Æschylus*.

The fact is that the big men in the profession gain their position not because of their success in individual illnesses, but because in a long course of hospital practice and research they have shown those general qualities of mind from which one may safely argue to their conduct in a particular instance. As for lesser men, they gain their position, as many of them would probably confess, by every means but intrinsic medical merit. They have pleasant manners, or an imposing air, or faultless tact, or a sympathetic voice, or their rivals in the neighbourhood are devoid of these accomplishments. Whatever it is that wins them success, it is not the broad philosophic habit of thought of the great physician, which, perhaps, scarcely one in a hundred of their patients would recognise in them if they had it. So the fact that in a single case some hitherto unknown practitioner happens to be in attendance has no importance for the general public; it merely implies that he has pleased or gained the confidence of an individual, and it is therefore inexpedient that it should be made known. We cannot imagine a falser position for a young doctor to be placed in than to have his name constantly in the papers as the attendant on such and such a grand personage. Sooner or later, the lion's skin is sure to be stripped off him; and even if he prove in the end to have been a lion after all, though a young one, it would have been better for him to have waited till his mane had grown. Thus, as the big men need no publicity, and the little ones are only put in a false position by it, it were better that the advertisements known as medical bulletins were discouraged. We have spoken out boldly on this point, because it is the privilege and duty of a journal to speak, when the lips of individuals are closed by the fear of incurring a charge of jealousy. We believe that we are but giving voice to the feelings of the large majority of respectable and self-respecting practitioners, and that the profession at large would be very glad to see the College of Physicians taking the initiative in the matter, and publishing a formal disapproval of the issue of signed bulletins except in the case of patients of the greatest eminence, and a condemnation of the publication in the lay press of the symptoms of any case whatever.

If a case is of distinct clinical interest, let it be published, without the name of the illustrious patient, in a medical journal. Speaking for ourselves, it is our settled policy never to admit to these columns the details of any case simply because it happens to be that of a personage.

#### A DOCUMENT IN MADNESS.

AFTER gazing intently for some time at the portrait of Oliver Goldsmith in Trinity College, Dublin, Carlyle told his companion that he noticed in the features that wild and confused look which is so common in the faces of Goldsmith's countrymen; and after scanning with some care the Report of the Inspectors of Lunatic Asylums in Ireland, we are constrained to admit that we recognise in the lineaments of that Blue-book the genuine national expression which Carlyle fitly characterised. Wildness and confusion stamp its every page, and indeed impart to it a peculiar interest, such as is rarely to be found in publications of its kind. These are, as a rule, prim and prosaic, but this Irish Report runs riot in stupendous absurdity, and at once stimulates the curiosity of anyone who may be compelled to dip into it. For on reading it, or attempting to read it, one experiences a feeling of agonising wonder analogous to that felt when watching the writhing performances of the Human Serpent—a sense of half-amused and half-horrified amazement that the English language can be thrown into such extraordinary and unimaginable contortions. Curiosity is piqued to get at the meaning of some particularly knotty sentence. The idea flashes up that a discovery has been made of an entirely new form of aphasia or word-blindness. But from all such attempts and speculations we fall back, baffled, on the conclusion that it is simply Irish wildness and confusion that we have to deal with.

Lest it should be thought that we are exaggerating the Hibernian disorder and perplexedness of this Report, which has passed the Queen's printer, and been presented to the Lord Lieutenant and to Parliament, we cull from it one or two sentences which may be taken as samples of its style. At its very outset it thus launches forth: "The progress not only of a full accommodation in public institutions for the mentally afflicted in Ireland, but with it of every suitable provision to administer to all their domestic wants and personal comforts, has been hitherto so sedulously encouraged and practically advanced by us that we venture to represent the condition of the insane poor as highly satisfactory." There is, of course, a glimmering of meaning through this cloud of words, but what is to be made of the following clotted composition, which, we gather from a marginal note, is intended to convey information as to the character of the insane inmates of poorhouses? "The great majority, save in the few exceptional cases of acute mania that occasionally supervene, is composed of individuals, many of them advanced in life, who becoming decrepit from age in the union have lapsed into dotage—of epileptics of congenital idiots—of imbeciles physically ill developed—of persons broken down by habits of dissipation and inebriety whose faculties become disordered, of hopelessly demented who had been sent from district asylums, and of others after long years of employment elsewhere when labouring under debility both of mind and body remitted home—not but that English asylums harbour largely natives of Ireland." This is indeed an extraordinary and giddy flight of rhetoric, but it is rivalled or surpassed by many others that come before and after it; and indeed, the whole Report is from beginning to end a bewildering enigma, which, however, it would be scarcely worth while to endeavour to solve.



It must be obvious that, from a report of the kind which we have been indicating, no very clear or comprehensive information can be derived as to the state of the insane in Ireland. The statistical tables, however, which form the appendix, are necessarily more intelligible, and from them we gather that there were in Ireland on January 1, 1883, 13,821 registered lunatics, against 13,444 on the corresponding day of the previous year. It thus appears that the number of registered lunatics increased by 377 in the twelve months, and this too although there was a diminution in the population of the country at large. The distribution of the registered lunatics of Ireland was as follows at the beginning of this year:—9271 in district asylums, 173 in the central criminal asylum, 650 in private asylums, 16 in idiot asylums, and 3711 in workhouses. The district asylums, which are twenty-two in number, and vary in size from that at Carlow, which accommodates 250 patients, to that at Dublin, which accommodates 1100, appear to be in a sound and improving condition. They are presided over by medical superintendents, with salaries ranging from £400 to £700 a year, and with allowances which vary in estimated value from £100 to £229 a year. These allowances are, we think, set forth with unnecessary detail, as it cannot be pleasant to a professional man to have it published to the world that he receives two pounds of bread and one stone of potatoes per diem, or that he is paid £5 per annum for washing, and £2 for brushes. One medical superintendent, we notice, has the “keep of a horse, pig, and fowl,” and we can only express the hope that the hen which is thus supported at the public expense, and reported to Parliament, has a due sense of its official responsibility, and never lets its chief run short of eggs.

It must not be supposed, however, that the statistical tables of this Report are plain sailing. Some of them are as incomprehensible as the text, notably that one in which the proportions of recoveries and deaths to the admissions and average number of patients resident in asylums are dealt with. We are informed, for instance, that 209 patients were admitted into the Armagh Asylum during the years 1880, 1881, and 1882, that 89 were discharged recovered, and 72 died, the average number daily resident having been 622; and from these data the somewhat startling conclusion is arrived at, that the recoveries were at the rate of 128 per cent. of the admissions, and that the deaths were at the rate of 35 per cent. of the average number of patients daily resident. And so on throughout the whole length of this table, only that the results arrived at are, in the case of some other asylums, even more remarkable than those at Armagh. Thus at Enniscorthy the recoveries reached the unparalleled height of 201 per cent. of the admissions; while at Dublin the death-rate mounted to 44 per cent. of the average number of patients resident; and yet we are not informed that any new and infallible cure had been in operation at Enniscorthy, or that any fearful epidemic had swept over Dublin. It is clear that if these rates of recovery and death can only be maintained for a few years, the functions of the Inspectors of Asylums will be at an end, and that lunatics will be as scarce in Ireland as snakes are in Iceland.

It would be a waste of time to enlarge further on the blunders and solecisms of this Irish Blue-book, or to laugh at the cock-a-hoop expressions of self-satisfied pride on the part of the inspectors, which are so liberally interspersed with these. Enough has been said to indicate its worthlessness. It is discreditable to the Irish Executive that such a report should have been permitted to appear. The only useful purpose it can serve, is to afford conclusive evidence of the urgent necessity that exists for a radical reform in the lunacy administration of the sister island.

## CLINICAL PAPERS.—No. I.

### THE LESS OBVIOUS SYMPTOMS OF GASTRIC ULCER.

THE frequency with which ulcer of the stomach occurs, though indicated by dissections of the dead, and taught, moreover, by several writers, is perhaps not duly realised; and it is probable that from time to time the absence or the want of salience of some of the well-known symptoms in this affection leads to imperfect observation of the case, and in consequence to erroneous diagnosis and ineffectual treatment. In the mass of instances, both in hospital and private practice, usually relegated to the large category of dyspepsia there are many where careful observation and inquiry into past symptoms suggest the probably causative influence of gastric ulcer. Apart from the significant occurrence of rapidly fatal perforation, sometimes without any premonitory complaint whatever, which should have its important clinical lesson for all, and the frequent discovery of healed ulcers in the post-mortem room, careful observation of symptoms and a little scientific use of the imagination seem to lend great force to the teaching which emphasises the part played in so-called dyspepsia by this curious affection of the stomach.

It would not appear necessary in these cases that the complaint of *severe* pain should be made; though much stress should be laid on its more or less definite localisation, and time of occurrence in relation to taking food. It would be surprising to those who may not have paid much attention to this subject to learn that in an extremely large number of the very common complaints of pain between the shoulders at a certain definite spot, or, more rarely, of a similar pain at the epigastrium, which are of constant occurrence in the out-patient room, very definite and indubitable histories of considerable vomiting of blood can be obtained, though often this symptom has either been so remote in time or, if repeated, so slight in degree that the patients do not spontaneously complain of or report it. These cases are probably too frequently put down to “gastritis” or “gastric catarrh,” and, even more vaguely, when the pain and general disturbance are but slight, to that refuge of diagnostic doubt, “dyspepsia,” or are looked upon as solely and directly due to improper feeding.

It must be remembered that the kind of complaint under consideration—the definite *interscapular* pain, the “sinking,” etc.,—although familiar to those whose work is among the lower orders, is but rarely made by the more well-to-do, whose many and variegated dyspeptic maladies are directly traceable to what and how they eat and drink. Such cases of indigestion, on the other hand, and such troublesome cases—from the point of view of treatment—as are so often met with among the higher classes, occur but rarely among the lower, where, in the few instances taking place outside the circle of tea- and alcohol-dyspepsia, and often in these as well, a cure can generally soon be wrought. But it is by the lower classes, and by women especially, that the definite complaint of interscapular or epigastric pain is so often made; and among them too is admittedly found the greatest incidence of gastric ulcer, as evidenced by unquestionably marked symptoms during life or by examination after death. It may be interesting, perhaps, to remember in this context that the greater frequency of pain between the shoulders than “at the pit of the stomach” may have some connexion with the more favourite seat of gastric ulcer on the posterior aspect of the organ, and that the locality of the cause of the pain may be hinted at by the frequently beneficial effect of a sinapism placed *in situ*.

These remarks may be applied as well to cases where no history of hæmatemesis can be obtained, or even where it



can be excluded. Many instances of gastric ulcer undoubtedly occur without hæmorrhage, as especially shown by the rapidly perforating ulcers in the anterior wall of the stomach, unchecked in their fatal course by any adhesion to other organs. One practical and additional aid in the diagnosis of the obscurer cases of this affection is the condition of the tongue, which is but rarely coated or furred as it would be were the gastric affection, if accompanied by equal pain, either diffuse inflammation or malignant growth. The reasonable hypothesis of the great clinical frequency of gastric ulcer will often lead to success in treatment after many dietetic changes and many drugs have failed; for it points to as near an approach to *perfect rest* of the stomach as possible—to semi-starvation sometimes for awhile, or even rectal feeding, in cases before any alarm of danger arises. Such treatment will occasionally work apparent wonders, and may serve also to support the diagnosis in the mind of the doubter, when he finds that on a speedy return to ordinary food the patient's pain may often be long in recurring, or may never be heard of again.  $\Sigma$ .

### CHRONICLE OF THE WEEK.

At the Medical Society, on Monday evening, the adjourned discussion on Mr. Lister's method of treating fracture of the knee-cap was opened very appropriately by Mr. Bryant. He began with an eulogy on the system of antiseptis in surgery, and on the brilliant results to which it had led. He himself fully accepted the principles, though he did not quite carry out the practice of Mr. Lister. He criticised the expression of "being morally certain that we do not subject a patient to risk." Could anyone say this, whatever theory he adopted, or on whatever plan he carried it out? Mr. Adams, who had worked at this subject, said he would submit himself to this operation at the hands of Mr. Lister, but at no one else's. Mr. Bloxam had operated successfully in three cases, which were shown to the Society. Mr. Royes Bell had operated four times, with complete success in three cases, and a failure in the fourth. Mr. Gant praised Malgaigne's hooks. Mr. Morris spoke against the operation, on account of the risks involved. Bony union was not an advantage, because, in cases of re-fracture, it was the bone which gave way elsewhere, and not along the line of the old ligamentous union. The ordinary treatment was free from all risk, gave excellent results in the hands of a careful surgeon, and failure to attain them depended not on the method but on the surgeon. Mr. Rose had had three cases, with complete success in two, and with success, but less complete, in the third, for there had been a little suppuration. Mr. Cheyne had examined the pus without finding any bacteria. Mr. Owen objected to the treatment: he always obtained good results by keeping his patients in bed for a long time. Mr. Baker was opposed to the plan, on account of the risks involved, but chiefly because such excellent results could be obtained by the ordinary method, if carefully carried out.

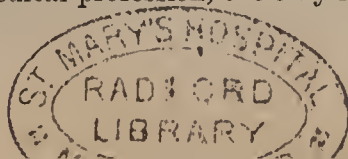
MR. LISTER replied with great point to the objections raised, making an evident impression on his hearers in favour of the whole question of strict antiseptic surgery—as carried out by himself. He was not, he said, particularly wedded to carbolic acid. He felt sure that he would obtain satisfactory results if iodine alone were at his disposal. But it was useless to suppose that the best antiseptic substance in the world would prove efficient unless efficiently applied, and in greater or less quantity in proportion to its antiseptic power, its volatility, its solubility, and other attributes. As regards the duration of treatment, on which so many surgeons had laid stress, it was surely not a matter of

indifference whether a case could be cured in six weeks or whether six months should be employed. Finally, he cautioned his hearers against the adoption of this method unless they were prepared to carry out a most thorough system of antiseptic precautions. It cannot be doubted that Listerian surgery will receive a tangible impetus from the discussion of this operation, while its author will by it add yet another to his many achievements in surgical practice. The time is fast approaching when those who do not carry out Listerian precautions will be called upon to justify their practice by the publication of their results, just as in the near past the Listerians have been challenged to publish theirs.

Dr. SAMUEL WEST's interesting communication on the Anastomosis of the Coronary Arteries, at the meeting of the Pathological Society the other evening, affords a good instance of how readily a mistake may be made, and how often it is accepted without question. For many years, on the strength of Hyrtl's assertion, it has been almost universally taught and believed that the blood did not pass from one coronary artery to another; whereas a little extra trouble in the method of experimenting would have sufficed to explode this unfounded belief long ago. Messrs. Parker and Shattock raised very important questions in their communication on the Causation of so-called Talipes Equino-varus and other forms. So far as one case can do so, they proved conclusively that congenital talipes does not depend upon an affection of the central nervous system. Mr. Waren Tay's case of a boy who had recovered from complete necrosis of the lower jaw was of much interest. Dr. W. B. Hadden showed two specimens of ruptured heart; Dr. Norman Moore, a case of stricture of the jejunum, with three diverticula in the duodenum; and Mr. W. J. Roeckel made a communication on the structure of hæmorrhoids.

THE usual monthly meeting of the Obstetrical Society was held on Wednesday. The time was chiefly occupied by a paper, by Mr. Lawson Tait, on the subject of Pyosalpinx. There appeared a general feeling that Mr. Tait was the pioneer of a real advance in the treatment of a certain class of cases. But it was also made evident, both from the remarks of speakers and from Mr. Tait's paper and replies to questions, that the operations he advocated were exceedingly difficult (Mr. Tait, indeed, expressed himself as unable to teach anyone else how to perform them); that the diagnosis of the cases was very obscure; that it was far from easy to distinguish between hydrosalpinx—an almost harmless condition—and pyosalpinx—a much more serious one; and that probably a number of cases even of the latter get well without operation. While the diagnosis and the technique of the operation are in this stage, it is plain that it cannot be recognised as a resource at the disposal of every gynaecologist. Far more exact observation of cases is needed before this end can be attained.

THE Medical School of Harvard University has just entered, by what is well termed "a fortunate coincidence," upon its second century of existence, and, at the same time, upon its occupation of the noble and spacious new buildings which the liberality of the American public has provided for its use. The dedicatory address was appropriately delivered, on October 17, by the veteran author, Dr. Oliver Wendell Holmes, whose name is as much honoured and works as much appreciated on this side of the Atlantic as on the other. It is not, perhaps, in England so universally recognised that the author of the "Autocrat of the Breakfast Table" and "Elsie Venner" is a member of the medical profession, the only living one who has risen to the





highest rank in pure literature; but the fact remains that we are entitled so to claim and boast of him. Dr. Holmes's oration, an abstract of which will be found in another column, will be widely read, and with delight by all. It is not only an interesting review of the progress of medical and surgical science within the last two half-centuries; it is besides, as we should expect from the gifted author, so sparkling with anecdote and epigram, so graceful and felicitous in expression, as well as valuable in matter,—such a quaint mingling in parts of the lofty and didactic with the humorous and imaginative, as to form a whole well worthy both of the orator and the occasion. As a review of the past, and an abstract of the present, state of medicine and its allied sciences, regarded from its most broad and cosmopolitan standpoint, this address is well worthy of attention; while, as an illustration of the peculiar versatility of style of the writer, and of his power of presenting the grave and gay in happy combination, it is equally remarkable. The words of this most liberal-minded of authors on the subject of Medical Women may be well read as a semi-serious, yet suggestive, context to the *Lancet* editorial article of the past week.

ONE point in the address is especially worth picking out. The lecturer is congratulating his audience on the size and number of the new class-rooms. "If you knew," he says, "what it is to lecture, and be lectured to, in a room just emptied of its preceding audience, you would be thankful that our arrangements will prevent such an evil. The experimental physiologists tell us that a bird will live under a bell-glass until he has substituted a large amount of carbonic acid for oxygen in the air therein. But if another bird is taken from the open air and put in with the first, the newcomer speedily dies. So, when the class I was lecturing to was sitting in an air once breathed already, after I have seen head after head gently declining, and one pair of eyes after another emptying themselves of intelligence, I have said, inaudibly, with the considerate self-restraint of Musidora's rural lover—'Sleep on, dear youth; this does not mean that you are indolent, or that I am dull; it is the partial coma of commencing asphyxia.'" This is no new truth, though expressed in somewhat novel form and language. But it is one whose practical force is too often lost sight of in our educational establishments in England, and even, as we can recall, in some of our medical schools. It is not a thing altogether unknown for the lecturer to meet his class in a room "just emptied of its preceding audience," and where the air has been further deteriorated by the blaze of gas at the expense of the already diminished supply of oxygen. Such a thing should not be, and we may hope that the crisp utterances of Dr. Wendell Holmes may have their effect in enforcing this well-worn truth in the old country as in the new. Certainly an attitude of mind which may be described as the "partial coma of commencing asphyxia" can be favourable neither to brilliance in the lecturer nor retentiveness in the student.

THE descriptions which the American journals give of the new building show that in other respects the interests of the students have not been forgotten. The ground floor is almost entirely given up to them. There is a spacious reading-room, a library, a coat-room, lavatories, and—a smoking-room. It is indeed a new step on the part of the authorities to recognise that the student is a being with bodily frailties like themselves. Hitherto, in most medical schools it appears to have been an article of belief that the student had no appetite or thirst that needed solacing or quenching; that his backbone was of iron, and his ischial tuberosities of adamant; that he could see like a bat, and flourish on carbonic acid like a bay-tree. As to his being

so weakly organised as to need an occasional fillip from excisable articles, such as tea, coffee, alcohol, or tobacco, that is a notion to which many authorities still remain blind. There is another side to the question, as one of the speakers at the Boston ceremonial seemed to suspect when he quoted the lines—

"Ill fares the land to hastening ills a prey,  
Where wealth accumulates and men decay."

The appetite for comfort grows by what it feeds on, and when we find our students lolling over their afternoon tea or cigarettes in all the luxury of a club-room, we may look back with regret to the days when theatre-benches were hard and polished by long sitting, when the pipe was a surreptitious open-air indulgence, and tea was left to women.

THE return of the Registrar-General for last week is satisfactory. The death-rate for the twenty-eight chief centres of population was 20.1—a rate which will bear lowering, but which compares very favourably with that which was common before the sanitary era. The London death-rate for the week was 19.0, and for the first five weeks of the current quarter 18.4 per 1000. Though zymotic diseases caused 158 deaths in the week, 61 of which were due to scarlet fever, this number was 79 lower than the ten-years' average for the corresponding week. Fifty-one people met with violent deaths, the vast majority of which were from accident or negligence. Twelve babies died from suffocation—a figure which indicates that many mothers were either overworked or careless of the lives of their progeny. The amount of infanticide, whether from negligence or intent is a very fair index of the social and moral well-being of a people. A hutch-fed rabbit will kill her young, but no animals that live under healthy conditions do it. Child-murder nearly always implies either misery or disease.

THE notion that disease-germs are modifiable, and owe their dangerousness less to their inherent specific characters than to the conditions which favour their development, as it filters down into the average scientific intelligence, will, probably have very far-reaching practical effects. If noxious germs always retain their specific characters, if there is no such thing as evolution of them out of, or devolution of them into, innocence, then the practical way of dealing with them is to shut the door upon them and keep them out at all hazards. But if they are modifiable, then our effort should be to prepare for them conditions under which the more dangerous forms can neither originate nor thrive. You have a stinking water-closet in your house, suppose. Well, you can deal with it in two ways. You can drown its odours with carbolic acid, put a double door to it, and keep its effluvia out of your house; or you can have it taken down, and one put up that won't smell. The one treatment represents the action of those who, in the case of diseases caused hypothetically by germs, attack the exciting cause—the germ; the other represents the action of those who fix their attention on the predisposing conditions. If dental caries, say, is due to bacteria, you may attack it either by antiseptic washes and powders, or, recognising the futility of that method, you may look out for a means of so strengthening the tooth-tissue, that it may, as in our ancestors, bid defiance to the bloodthirstiest germ. Here it is clear enough which is the more rational procedure; and what is the more rational in one case, may quite likely be the more rational in all.

THE two views are seen in action in respect to the different means of preventing both cholera in man, and foot-and-mouth disease in cattle. "Lock the door!" shriek the French hygienists and the English farmers; "keep out the pest at all costs." "Nonsense!" reply the English authori-



ties in each case; "clean down your house, and do your best to keep out the infection; but for goodness sake don't trust to the feeble barricade of a door, and lull yourself into false and foul security behind it. There is not a cordon known yet which the flaming tongue of infection will not pass if there are inflammables on the other side." This attitude is as yet but imperfectly grasped either in France or in England. Here is an instance. A writer in Tuesday's *Times* sneers at the marvellous discoveries of the microscope, which are to make the world believe that foot-and-mouth disease comes from dirty ditches, and not from abroad. He is quite amused at the idea that sewage-water is deleterious to cattle. He has, from an experience of forty years, convinced himself that farm animals do not only derive no harm from drinking water consisting mainly of sewage, but that they even thrive on it. In one farm he knows of, the most aged mares invariably drink by preference from that corner of the pond into which the farmyard directly drains; hence it is needless to provide pure water for them. That represents the mental attitude and the average reasoning faculty of the majority of people in England and France. "The cannon-shots have not yet happened to hit this particular magazine; therefore let us sit upon it." Why, the proverbial Irishman took up a more sensible position than that!

THE current number of *Brain* contains, amongst others, an article by Dr. Crichton Browne, on the Pulmonary Pathology of General Paralysis, which cannot fail to attract considerable attention. In a large majority of cases, where an autopsy is made, coarse macroscopical changes are found. In the first place, the mean weight of the lungs is considerably increased, and this notwithstanding the fact that the normal lung in general paralysis weighs less than in health. This loss of weight is probably dependent upon withering and obliteration of capillaries from diminished respiratory function and blood-volume. Pleurisy would appear to be tolerably common, but the affections of the lung itself are of more importance. Of these, congestion is the most common—much more so, indeed, than in cases of death from exhausting bodily diseases. The lesson to be learned from the occurrence of this congestion is that the patient should not be left too long in one attitude or position, and, indirectly, it furnishes a good plea against the use of mechanical restraint. Pneumonia, which is a frequent cause of death in general paralytics, is regarded as probably due to some central nervous influence producing neuro-paralytic hyperæmia, with possibly a suspension of healthy trophic influences superadded. Phthisis is the cause of death in a very considerable proportion of general paralytics, and, indeed, of all the insane; and Dr. Crichton Browne regards this fact as affording confirmatory evidence of the communicability of phthisis, for, as he justly remarks, the inmates of asylums are well fed, clothed, and housed, and live in healthy situations and under strict hygienic regulations, and yet phthisis is more common among them than amongst the general community at large; and, further, phthisis is more common amongst the females than the males in lunatic asylums—which is the reverse of what obtains amongst ordinary people, and is to be attributed to the more sedentary, confined life that the females live. The practical result of this view is that Dr. Browne suggests that patients suffering from phthisis should be isolated in the infectious block attached to most asylums.

THE most important paper in the French journals this week is Charcot's lecture in the *Progrès Médical*, entitled, "Des différentes formes de l'Aphasie: Aphasie motrice." The same journal contains an article by M. G. Rivet, headed, "Que deviennent les Varices chez les Femmes enceintes

lorsque le Fœtus succombe"; and one by M. E. Brissaud on "Le Pouls capillaire visible." The *Gazette Hebdomadaire* contains "Étude critique sur la Tuberculose articulaire," and several reports from the Academy of Medicine and the scientific societies. The *Gazette des Hôpitaux* contains a case by M. Verneuil, "Resection sousperiostique de l'Humerus et des Os de l'Avantbras." The *Revue Mensuelle de Laryngologie, etc.*, contains the following communications, viz., "Rhumatisme articulaire aigu à début auriculaire," by Dr. Ménière; "Des Kystes du Larynx," by Dr. Blanc; and "De la Syphilis de l'Oreille," by Dr. Baratoux.

THIS week's number of the *Centralblatt für Klinische Medizin* contains abstracts of several papers of interest, notably of papers by Schiff, on the Excitability of the Spinal Cord; by Rosenstein, on Blood-Pressure in Fever; by Barie, on Cardio-Pulmonary Disturbances, secondary to Gastro-Intestinal Affections; and by Arloing, Cornevin, Thomas, and Perroncito, on the subject of Charbon. The *Centralblatt für Chirurgie* continues the reports of the Meeting of German Naturalists and Physicians, giving a short *resumé* of the debate following each paper. The subjects of Laceration of the Bladder and the Treatment of Goitre are of chief interest. A paper by Gritti on the Surgical Treatment of Spermatalgia is also to be noted. The *Centralblatt für Gynäkologie* is also largely occupied by the report of the Gynecological Section of the same meeting. An original paper by Dr. C. Brendel, in Montevideo, gives an account of a Successful Extirpation of the Uterus through the Vagina. In the *Berliner Klinische Wochenschrift*, Dr. Bidder's article on the Relation of the Alkaline Salts to the Etiology of Tuberculosis is continued; and original papers—by James Israel, on a case of Extirpation of the Kidney; by Dr. Pauli, on Diphtheria with Inflammation of Joints; and by Dr. E. Kurz, of Florence, on a case of Bilateral Ovariectomy—are contributed. The *Wiener Medicinische Wochenschrift* publishes the conclusion of Dr. Heitler's paper on the diagnostic importance of Tubercle Bacilli in Sputa, and of Dr. Pinnser's article on Hepatic Abscess.

#### EXPERIMENTS WITH SODIUM NITRITE.

IN publishing, and indeed in instituting, their reckless experiments on the effect of nitrite of sodium on the human subject, Prof. Ringer and Dr. Murrell have made a deplorably false move, which the ever-watchful opponents of vivisection will not be slow to profit by. They cannot allege that they were driven to the experiments by the Vivisection Act, for they preface their account of their *clinical* observations by a description of *pathological* observations on two cats, who rapidly succumbed to the drug. Nor have they the excuse that the effects of nitrite of sodium on the human subject were unknown, for Dr. Ramskill and Dr. Ralfe have placed on record six cases in which its administration was attended by the most serious consequences—lividity and semi-collapse. It is impossible to read the paper in last week's *Lancet* without distress. Of the eighteen adults to whom Drs. Ringer and Murrell administered the drug in ten-grain doses, all but one avowed they would expect to drop down dead if they ever took another dose. One woman fell to the ground, and lay with throbbing head and nausea for three hours; another said it turned her lips quite black, and upset her so, that she was afraid she would never get over it. The next series of experiments was with five-grain doses. The same results followed in ten out of sixteen cases. One girl vomited for two hours and thought she was dying. Even in three-grain doses the drug caused unpleasant symptoms in four out of the thirteen patients to whom it was administered. All these observa-



tions are recorded with an innocent *naïveté*, as though the idea that anyone could possibly take exception to them were far from the writers' minds. But whatever credit may be given to Drs. Ringer and Murrell for scientific enthusiasm, it is impossible to acquit them of grave indiscretion. There will be a howl throughout the country if it comes out that officers of a public charity are in the habit of trying such useless and cruel experiments on the patients committed to their care, and the whole profession will be placed in a false position. The public will not understand that such a mode of conducting out-patient practice is altogether exceptional, and would not meet with the approval of half a dozen doctors in the metropolis. It is with the view, if possible, of forestalling the outcry of the anti-vivisectionists and counteracting the effects of this terribly false step, that we have felt ourselves compelled reluctantly to enter this protest against it.

#### THE EFFECT OF EXPLOSIONS ON THE MEMBRANA TYMPANI.

AN interesting letter from Mr. Field, in the *Times* of Saturday last, draws attention to the fact, that among the patients seen at St. Mary's Hospital, after the recent explosion on the Underground Railway, three were found to have sustained rupture of both tympanic membranes, air passing freely between the mouth and outer ear. Considering how frequently this membrane is exposed to violent concussions of air, it is remarkable how comparatively seldom it is ruptured when in a normal condition. Its resisting power, however, has been proved, both by experiment and by clinical observation, to depend largely on the patency of the Eustachian tube. Still, that it possesses great resisting power in itself, is shown by Prof. Gruber's experiments. In every instance the gutta-percha plug, which was tightly wedged into the meatus, was expelled. In one experiment, air, compressed four or five fold and suddenly injected against the membrane through the external auditory meatus, failed to rupture it. It is also well known how comparatively seldom soldiers suffer from ruptured membranes when exposed to heavy firing, even when, under the old system, the gunners stood close to the mouth of the cannon. Prof. Gruber, after examining many hundreds of the soldiers who fought at Königsgratz, only found one case in which the membrane was ruptured. The observations of Drs. J. Green and A. H. Smith have shown very clearly that the greater or lesser liability of the membrane to rupture during explosions depends much on the patency of the Eustachian tube. Dr. Green examined a number of the men engaged in laying the foundations of a bridge, who were working in an atmosphere of sixty pounds to the square inch, and discovered that rupture of the membrane occurred, first, where the Eustachian tubes were impervious; secondly, where there was recent tubal catarrh; and, lastly, among the new hands, who had not been instructed how to inflate the tympanic cavity by Valsalva's method while working. These observations only corroborate what had been also noticed by von Tröltsch. He says: "I have found severe pharyngeal catarrh, with diminished patency of the Eustachian tube, remarkably often in persons whom I have examined soon after accidents to the membrane, arising from violent atmospheric pressure. It is in the nature of the case that during more complete closure of the tube any sudden condensation of the external air must tend to act much more injuriously on the membrane thus impeded in its vibrations, than when the air present in the tympanum can escape, on any sudden concussion of the membrane, unimpeded through the tube." That a slighter concussion of air is more likely to rupture the membrane, where the Eustachian tube is from any cause closed, than a greater one where the tube is patent,

would appear to be borne out by such a case as that of an actor rupturing his membrane by firing a pistol over his shoulder, as quoted by Roosa. Mr. Field, in his letter, contends "that the double amount of mischief caused clearly points to the powerful nature of the explosive used." As the explosion occurred in a narrow tunnel, it is obvious that both ears were probably equally exposed to the violence of the concussion, and it would have been more remarkable if *one* membrane only had been ruptured. While agreeing, therefore, with Mr. Field as to the violence of the concussion, we cannot quite follow him in his conclusion as to the importance of the *double* rupture as clearly pointing to the powerful nature of the explosive used.

#### MILK AND TUBERCLE.

BOVINE tuberculosis is not a common disease, and fortunately, when cows become affected, the loss of health is so obvious, and the yield of milk so small, that the milk producer's interest lies more in selling the animal to the butcher than in draining its udder. The observations of Gerlach, Klebs, and Bollinger, who fed calves, rabbits, and pigs with milk from phthisical cows, and successfully produced in this way the disease, are too well known to be detailed; but we are glad to direct attention to some experiments of Dr. Ferd. May, published in the first number of the new *Archiv für Hygiene*. Pieces of lung, infiltrated with tubercle, were finely divided and rubbed up in a mortar with milk. The milk thus prepared was injected subcutaneously into guinea-pigs; tubercle in the majority of the cases followed, but there were many failures. In a second series of experiments, the milk, contaminated as before, was boiled from a quarter of an hour up to three hours; but though sixteen animals were operated upon, no effects followed. It also seems established that if the milk-producing gland is itself infiltrated with tuberculous deposit, the secretion is far more dangerous than if derived from a cow much advanced in phthisis, but with the mammary gland unaffected. It would be interesting to know, from the experience of our veterinary surgeons, whether they ever meet with local tubercle in the udder of milch-cows, the rest of the system being, comparatively speaking, unaffected. In the light of recent research, we cannot but admit that such an occurrence would infect a milk-supply, and produce what might be called an "epidemic of consumption." If there is a difficulty in referring outbreaks of scarlatinal and enteric fevers to infected milk in which the period of incubation is approximately known, how much more difficult to prove the connexion between milk corrupted with tubercle, and a number of cases of consumption which, from the slow, insidious nature of the malady, would probably develop at various dates, and be ascribed to various causes! We recommend medical officers of health to study closely the incidence of tuberculosis in young children, especially those brought up by hand, and repeat the advice given in a former article, namely, in the present unsatisfactory state of the milk-supply, to drink no milk which has not been boiled.

#### SYMBIOSIS IN MEN AND ANIMALS.

LAST week's *Nature* gives an abstract of a most interesting paper on Symbiosis in the Animal Kingdom, by Prof. Hertwig, of Jena. Symbiosis is quite different from ordinary parasitism, in which one organism flourishes at the expense of another, for the symbiotic relationship is beneficial, and in some cases even indispensable, to both parties to the transaction; they toil together, and together enjoy the common fruits of their labour. Thus one species of hermit crab, after taking up his habitation in an untenanted shell, looks out for a certain kind of sea-anemone as partner. The partner, when found, fixes itself



on the shell with its mouth always turned toward the head of its associate. It thus accompanies the restless hermit on all his expeditions, shares in his plunder, and, when they are threatened by reprisals, shoots out its long threads, which, being provided with countless capsules charged with a stinging acid, form a very efficient defence against invasion. So thoroughly does the hermit dread the dangers of solitude, that, when he is compelled to move into another shell, he never rests till his caustic little friend has taken up its post upon the roof of his new abode. This interesting instance of *egoïsme à deux* reminds one of a similar connexion not unknown in the medical profession. The hermit crab is like some pushing and energetic chemist, whose red lamp, coloured bottles, and wide-open door tempt the impatient or thrifty invalid to make a trial of counter advice. Mostly all goes well, and the neighbourhood gets its liver cleaned and set agoing again, its blood purified and skin cleared of rashes, or its coughs cured, at a most moderate outlay. But sometimes a case goes wrong, and trouble threatens; then the offices of the anemone are called in, in the shape of a qualified medical practitioner, who lives above the shop or round the corner. The blunder is rectified, or the death-certificate signed, and, the danger being averted, the partners return to their usual avocations. The two are indispensable to each other. Without the chemist, the doctor—perhaps a lazy, drunken reprobate—would get no patients; and without the doctor, the chemist would often find himself in danger of unpleasant notoriety. Together success and safety are assured. That the results are not quite so favourable to their customers as to themselves only adds to the aptness of the analogy. The partnership is the type of a low form of evolution, beyond which the more respectable members of the profession have advanced. Most of us have emerged from the stage of the depredator into that of the philanthropist, and have come to regard our patients as an ant regards a greenfly, not as our prey, but as our *protégés*.

#### THE OPENING OF THE MEDICAL SESSION IN DUBLIN.

ON Wednesday, the 31st ult., an inaugural address was delivered at the Mater Misericordiæ Hospital, Eccles-street, Dublin, by Dr. Joseph M. Redmond, one of the Physicians to the Hospital. The chair was taken by the President of the Royal College of Surgeons in Ireland, Mr. W. I. Wheeler. The lecturer began by remarking on the present position of medicine as compared with its past position. Once its association had been with disease, now it was with health. He then briefly reviewed the history of the healing art from the earliest times, and concluded his address with a review of the recent researches of Koch and Pasteur. On Thursday, November 1, Dr. Banks, Physician to Her Majesty the Queen in Ireland, gave the introductory address for the session 1883-84 in the theatre of the Richmond Hospital, North Brunswick-street. On the same day, Mr. F. W. Warren, F.R.C.S.I., Surgeon to the Adelaide Hospital, lectured in the theatre of that institution before a large audience of students and visitors. In the School of Physic, Trinity College, Dublin, Dr. D. J. Cunningham, the lately elected Professor of Anatomy and Chirurgery, delivered a formal lecture to inaugurate the winter course; and Dr. Emerson Reynolds, F.R.S., the University Professor of Chemistry, in opening the chemical division of the Experimental Science School, pointed out—in regard to the present phase of general and technical education in Ireland—the scope of this great branch of science, and indicated the lines on which experience had shown that its teaching ought to proceed, to prove of real value to professional students and those who desire to engage in chemical industries. On Monday, the 5th inst., the last of the “introductory” was

delivered by Dr. John William Moore, in the theatre of the Meath Hospital and County Dublin Infirmary. On this occasion the lecturer departed from the beaten track, and criticised with considerable freedom the arrangements in the extern department of the Hospital, as well as the defects in the nursing system at present in force. There was a large attendance, principally of members of the medical profession and of students. In the evening a very successful dinner took place in the Shelbourne Hotel, for the reunion of old past students and governors of the Meath Hospital and County Dublin Infirmary, under the presidency of Sir George Porter, Senior Surgeon of the institution.

#### THE PARIS FACULTY OF MEDICINE.

THE fact of there being at the present time three vacancies in this body, through the deaths of Profs. Lasègue, Parrot, and Depaul, naturally causes great excitement among the professors and *agregés* of the Faculty. With respect to the chair of the Clinic of the Diseases of Children, there is somewhat of a contest among the *agregés*. Having been held by a physician in the person of Prof. Parrot, it is now claimed by the surgeons in their turn, who complain that the chairs of the Faculty are not fairly distributed between them and the physicians. The diseases of children are, they say, quite as much surgical as medical, and there can be no reason why they should be excluded from the chair in question. Dr. De Ranse, the talented editor of the *Gazette Médicale*, however, objects to this solution, and maintains that the functions of this chair cannot be efficiently performed either by a physician or a surgeon, and that the special and extensive province of the diseases of childhood requires for its effectual treatment that there should be two chairs, one filled by a physician, and the other by a surgeon. So also in reference to filling up Prof. Depaul's chair of Clinical Obstetrics, Dr. De Ranse thinks that the opportunity should be taken for dividing it into two—the one for obstetrics and the other for gynæcology, the latter branch of medical science being at present, he says, scarcely taught at all at the Paris Faculty.

#### MEDITERRANEAN FEVER.

IN the report on the health of the troops serving in the Mediterranean in 1881, the officer in charge of the station-hospital at Gibraltar, Brigade-Surgeon Fuller, thus describes his experience of Mediterranean fever:—“It is characterised in mild cases by ordinary febrile symptoms, with lassitude, debility, and slow convalescence. In severe cases there is great prostration, with profuse perspiration. In some the lungs posteriorly become rapidly consolidated by engorgement; in some there is brain-congestion and low muttering delirium; in others there is bowel-complication closely resembling enteric fever. Death may occur from any of these complications. The fever sometimes runs a very protracted course unattended by any complication, culminating in an altered or morbid state of the blood, and a condition of profound prostration complicated with purpura. After defervescence, in a very large number of cases, a rheumatic affection of the fibrous tissues around the joints and other parts supervenes. The duration of this stage of the disease may extend over an indefinite period; in some it may be counted in months. The cause and nature of this fever are still unknown, but it is proved beyond doubt that it is neither enteric, malarial, nor relapsing. My own idea is that the cause is to be found in climatic peculiarities. When there has been bowel-complication there is leaden-coloured congestion of the duodenum and upper part of jejunum. The ileum is generally healthy; Peyer's patches unaltered. In one case the patches were



observed to be very slightly swollen, but not sufficiently to be pronounced diseased; large intestines healthy."

#### GLASGOW UNIVERSITY.

THE half-yearly meeting of the Glasgow University Council was held on October 31. The subjects discussed were the University Bill, the proposed new doctorate in arts and science, presentation business, and the extension of the Medical School. Prof. Clelland pointed out to the Council that the accommodation for the Medical School should be extended. At present it was quite inadequate for the proper teaching of anatomy and for making preparations. It is gratifying to notice that the number of medical students attending the Glasgow University is yearly on the increase, and unless the accommodation is increased, it will be impossible to teach to the credit of the University and with safety to the health of the students. At present the museum is only a store-room, in which space is so small that specimens cannot conveniently be exhibited. When the buildings were designed, Prof. Allen Thomson, the then Professor of Anatomy, superintended the allotment of space for that department, and it was thought by many that Prof. Thomson was claiming too small space for his own department; and he little thought that in so short a time what was considered as very ample accommodation would be found to be too limited. A statement of the Senate on the subject, submitted to the meeting, contained the following:—"It is contemplated to build additions, which, while harmonising with the other buildings, shall be free from costly architectural details, and be as suitable as possible in their internal arrangements for the purposes to which they are to be devoted. The accommodation most urgently required must be provided without loss of time, and it is desirable that the University should be enabled to carry out at once an extension of the buildings sufficient to place the Medical School in a satisfactory condition for years to come. Sketch plans have been obtained, according to which it is estimated that everything required may be provided for £18,000. If such a sum cannot be raised, then the enlargement absolutely necessary must be gone on with, which will perhaps take £3000." With the increase of accommodation, the medical teachers seem determined to increase, or at any rate to uphold, their present high standard. At a recent examination they exemplified this by rejecting more than half the number of students for examination in their First Professional: 171 went up, and only eighty-five got through.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-third week of 1883, terminating October 25, was 939 (510 males and 429 females), and of these there were from typhoid fever 45, small-pox 5, measles 4, scarlatina none, pertussis 11, diphtheria and croup 31, dysentery 1, erysipelas 2, and puerperal infection 1. There were also 37 deaths from acute and tubercular meningitis, 181 from phthisis, 31 from acute bronchitis, 38 from pneumonia, 82 from infantile athrepsia (41 of the infants having been wholly or partially suckled), and 30 violent deaths (20 males and 10 females). The mortality has fallen again to very moderate proportions, and epidemics in general are rare. Of seasonary significance are the increase of deaths from bronchitis from 18 to 31, and of pneumonia from 49 to 58, and the diminution of deaths from infantile athrepsia from 117 to 89. The births for the week amounted to 1203, viz., 619 males (454 legitimate and 195 illegitimate) and 584 females (437 legitimate and 147 illegitimate); 87 infants were either born dead or died within twenty-four hours, viz., 41 males (19 legitimate and 22 illegitimate) and 46 females (32 legitimate and 14 illegitimate).

#### THE MEDICAL DEGREES OF THE VICTORIA UNIVERSITY, MANCHESTER.

At a meeting of the Court of Governors, held on the 7th inst., Prof. Ward submitted the draft statute and regulations prepared in the Council to give effect to the supplemental charter enabling the University to grant medical degrees. He stated that the examination in Arts was designed to insure that medical students should have a substantial degree of general culture. After this came the examinations which constituted the medical curriculum, and they were so arranged that a student might pass in four years. These four years were the absolute requirement of the statute, and, under the terms of the supplemental charter, they must be passed in a college of the University. There was the preliminary examination in Science, the intermediate examination for the Bachelor's degree in Medicine, and the final examination for that degree. Between the intermediate and the final examinations two years must elapse, although a student might, if he liked, take half the final in twelve months from the intermediate. It was intended to make the degree of Doctor of Medicine a really distinguished one, and candidates would be required to present an essay or book embodying the result of personal observation or original research. The further degree of Master in Surgery was intended for surgical specialists, and an examination would be exacted in which candidates would be required to show evidences of surgical study which ordinary students would not be able to present. The statute, after some discussion, was passed. The action of the authorities of the University in respect to their medical degrees has been looked forward to with some anxiety. It was feared that they might, by making their requirements comparatively easy, seriously affect the prospects of rival universities, and lower the prestige of the M.D. degree in this country. Everyone will be relieved to find that they have recognised the advisability of making that degree a really distinguished one, and their determination to give it for merit in personal observation or original research, rather than for success in writing examination-papers, will meet with general approval. It is felt by many to be a matter for regret that a similar policy has not been accepted at the University of London.

#### FRENCH HOSPITAL STATISTICS.

THE *Union Médicale* of October 25 furnishes the following figures, without, however, stating the authority whence they are derived:—There were last year 422,932 patients treated in the hospitals of entire France, and of this number 376,526 were discharged cured, 46,406 remaining at the end of the year. It is expected that from 400,000 to 410,000 will have been admitted during the current year, this being the mean annual number of admissions of the last ten years. In the provincial portion of France, the proportion of patients treated in the hospitals has amounted to 90 per 10,000 inhabitants; but in Paris itself this rose to 400 per 10,000. For entire France, the mean duration of treatment in hospital was thirty-five days and a half (thirty-one days for men, forty for women, and forty-eight for children); but in Paris it was but twenty-nine days. With respect to the issue of treatment, it was found that 78 per cent. of the patients under treatment were cured, and 9 per cent. died—giving a mean, therefore, of nearly nine times more recoveries than deaths. There were 80 per cent. recoveries in men, 75 per cent. in women, and 74 per cent. in children.

#### THE LAW CONCERNING RABID ANIMALS IN FRANCE.

THE Court of Cassation has recently declared that a prefectorial or municipal order is legal and obligatory which directs the destruction of all mad dogs or cats, as well as



of all animals of the same species that have been bitten, or are suspected to have been bitten, by them. This judgment, the Court adds, is as applicable to dogs or cats kept within the house under the surveillance of their masters as it is to those which are found wandering about the streets. The Correctional Tribunal of Lyons (*Lyon Médical*, October 28), putting this declaration of the law into force, has condemned to a fine of fifty francs the owner of a dog which had been bitten by a mad dog, for refusing to have it killed.

THE Library of the Royal College of Surgeons will be closed on Friday, the 9th inst., for the purposes of the examinations.

THE treatment of foot-and-mouth disease by salicylic acid is stated to have been very successful in Germany, and also in the few cases in this country in which it has been thoroughly tried.

THE will of Thomas Jervis, M.D., of Connaught-square, W., a Justice of the Peace for Middlesex and Westminster, who died on October 3 last, was proved on the 5th inst. by Mr. John Jervis, Mr. Stroud Cocks, and Mr. Frederick Benham, the executors. The personal estate was sworn under £63,000.

SIR EVELYN WOOD has reported to Earl Granville on Dr. T. D. Acland's invaluable services while attached to the Egyptian army. He was untiring in his attendance on the sick Egyptian soldiers during the cholera outbreak, and has since reorganised the entire medical hospital service of the Egyptian army.

THE Chair of Physiology in Anderson's College, Glasgow, is still vacant, but we understand that Dr. Christie, Lecturer on Health, has agreed to deliver the present course. It is supposed that the College would flourish better nearer the University—that is to say, further west. In its present position it is decidedly languishing.

THE funeral of Mr. James Shuter took place at Kensal Green Cemetery on Wednesday, the Ven. Archdeacon Emery, formerly Mr. Shuter's college tutor, officiating. The ordinary lectures and classes at St. Bartholomew's were suspended for the day, and the medical and surgical staff, as well as a large number of students and of former students now in practice, were in attendance to testify by their presence and their undoubted grief to the loss they had sustained.

DR. ALEXANDER FRAZER, Chief Demonstrator of Anatomy in Owens College, Manchester, was selected on Thursday last by the Council of the Irish College of Surgeons to succeed Dr. Cunningham as Professor of Practical Anatomy in the College. Five candidates offered themselves, viz.:—Dr. Barton, of Trinity College; Dr. Collingwood, of University College; Dr. Frazer, of Owens College; Dr. Reid, of St. Thomas's Hospital; and Dr. Thompson, of the Edinburgh University.

THE inaugural addresses delivered at the several medical schools at Glasgow last week were, on the whole, of a mild type. Prof. Young spoke on University extension. Dr. Wallace, at Anderson's College, treated his hearers to a diatribe against the present unsuitable form of ladies' dresses, and some remarks on deformed children. Dr. Stirton, at the Royal Infirmary, was original, as he chose amenorrhœa for his subject; and no doubt Sir Charles Dilke was interested to hear of the several experiments with "fungi" on the uterine organs.

JAMES COLE, the Thornton Heath murderer, has been examined, on behalf of the Home Secretary, by Drs. Orange and Gover, and in consequence of their report the convict has been respited, and will be detained at Broadmoor during Her Majesty's pleasure.

IN consequence of the reported outbreaks of trichinosis in Saxony, the French Minister of Commerce, at the instance of the Committee of Public Health of France, has despatched a mission to the spot to inquire into and report upon the circumstances. Dr. Brouardel has been commissioned to preside over the mission.

ANOTHER case in which the Public Prosecutor has laid himself open to criticism came before the magistrate at the Lambeth Police-court on the 1st inst. Two surgeons, Messrs. Bower and Keates, were charged with having by their negligence caused the death of a child whom they attended, but though the case had been taken up by the Public Prosecutor, the magistrate entirely exonerated them from the charge and dismissed the case. Cannot the Public Prosecutor find herbalists and abortionists to prosecute, that he must needs put respectable practitioners in the dock?

## MESMERISMUS CHRONICUS.

### [THIRD ARTICLE.]

IN Dr. Clifford Allbutt's introductory address, delivered at the opening of the Leeds School of Medicine on the 1st of October last, which was fully reported in the London medical papers, and deservedly received much attention, Mr. Gurney was bracketed with Mr. Hutton and Mr. Morley as "men of clear heads and profound humanity," whose arguments against vivisection deserve more consideration from the medical profession than they have yet received. As no exception was taken to this classification of Mr. Gurney with the arch-enemy of vivisection, we cannot hold ourselves primarily responsible for the "damaging blunder" of which he now complains. It was not, however, in reliance on Dr. Clifford Allbutt's authority alone that we described Mr. Gurney as an opponent of vivisection, for our recollection of his "Chapter on the Ethics of Pain," which appeared in the *Fortnightly Review* for December, 1881, was to the effect that he was not disposed to concede to men of science that freedom of research, in connexion with experiments on living animals, to which they think themselves fairly entitled. On refreshing our recollection by a reference to that article, as recommended by Mr. Gurney, we find that he cannot be correctly designated either an opponent or a supporter of vivisection. He is really a mediator between the parties, and, as self-appointed mediators are apt to do, makes himself about equally objectionable to both of them. The hallucinated humanitarians, who see a lacerated rabbit in every doctor's brougham, will scarcely thank him for admitting that it may be morally lawful, under some circumstances, to inflict suffering experimentally on animals; and the physiologists will certainly rather dispense with his advocacy when he argues that the acquisition of knowledge, apart from appreciable benefits in the relief of suffering to be derived from it, will never justify painful experiments on the lower creatures, and suggests that vivisections in this country should only be permitted under the sanction and superintendence of a board, composed chiefly of experts, but with some amount of representation of educated opinion outside professional ranks, which might mean the educated opinion of irreconcilables like Mr. Oxenham and Mr. Jesse. We should like to ask Mr. Gurney what practical application of his experiments he had in view when he applied the carving-fork and burning match to Mr. Wells, but the question as to his attitude towards vivisection is, as he says, remote from the matter in hand, and we can only express our regret if we have misrepresented that attitude, and our satisfaction at knowing that his great dialectical skill is enlisted on the side of scientific



progress, and against the "folly and mischievousness" of the ignorant zealots who are doing their best to retard it.

The relentless and uncompromising scepticism which we recommended when replying to Mr. Gurney's former letter was to be employed in the destruction of wilful imposture, and we have never said anything to justify the attribution to us of such staunch bigotry as would "under all conditions, and to the end of time, prefer the hypothesis of a defect in the observer's penetration to that of the reality of a previously unrecognised fact." What we did say was, that even after all the questions which we could suggest regarding the mode of performance of a particular set of experiments by Messrs. Smith and Wells had been satisfactorily answered, we should still rather believe in some defect in our own penetration than in community of sensation between two men in different rooms. It was perhaps unnecessary to imagine so improbable a situation,—for our questions would be numerous and searching; but in the event of its occurring, we should still certainly assume the position of rational scepticism which we indicated, and which Mr. Gurney converts into blind obstinacy. The human race has been accumulating harmonious testimony as to the range and limits of sensation for thousands of years, and some definite conclusions on the subject have been reached, and a very strong body of evidence will certainly be necessary to establish any fact that directly contravenes one of these conclusions. Physiologists have by laborious research determined the conditions of sensation with the utmost accuracy, and the contention that sensation may exist independently of these conditions will have to be supported by a mass of proof of a kind which the Psychical Research Society has not yet contemplated, before it can be entertained. To found a theory of community of sensation on the crude and rickety experiments of Messrs. Smith and Wells is to challenge ridicule rather than to invite discussion, and he who would accept such a theory, merely because he could not find out how the results of these experiments were secured, must be facile in faith or weak in judgment. Much more astonishing results are obtained daily by professed conjuring tricks; and when the *modus operandi* of these cannot be discovered, it is more logical to suspect a defect in penetration than to invent a *deus ex machina* for the occasion. Pretensions to a community of sensation, similar to that now set up for Messrs. Smith and Wells, have been again and again advanced on behalf of other interesting monstrosities, and have been again and again exposed as fictitious, and we have no doubt that the modern marvels of the Psychical Research Society will go the way of the marvels of the past, and leave not a rack behind. The game is an old one, and the only pity is that there is still so much childishness abroad as to enable it to be played with relish in these days, and even under brand-new rules.

Mr. Gurney thinks it may be well to give a distinct answer to our question whether any scientific men whose judgment would carry weight with the medical profession have witnessed the performances of Messrs. Smith and Wells, and, if so, what conclusion they arrived at. And here we are compelled to note that Mr. Gurney selects one of three consecutive questions to which to give an answer, and that he only answers that partially, if distinctly. Our questions were—1. Have we before us the whole of the experiments in mesmerism and thought-reading which have been performed by Messrs. Smith and Wells? 2. Have they ever failed in their experiments, and, if so, under what circumstances? 3. Have their performances been witnessed by any scientific men, biologists or surgeons, whose judgment would carry weight with the medical profession, and, if so, what conclusion did they arrive at? And the distinct answer to these questions is—"The finger experiment has been witnessed by several gentlemen (and will soon, I hope, be witnessed by many more) to whom the above description applies, and the conclusion at which they arrived was partly positive and partly negative." But our inquiry was not confined to the finger experiment, but included all experiments in mesmerism and thought-reading, and, regarding one set of experiments in the latter, we are in a position to state that a party of scientific men who witnessed them arrived at a very positive conclusion, which was, that they were carried on by collusion and signalling; a conclusion which was verified by the fact that the experiments failed utterly whenever some common-place precautions against collusion were adopted—precautions, however, which the Psychical Research Society had appa-

rently not thought of instituting. Now, the general sympathy with which Mr. Gurney has followed our argument on the subject of mesmerism ought to have led him to perceive that the fact that Messrs. Smith and Wells were thus baffled, threw the gravest discredit on all their previous and subsequent performances, while his knowledge of scientific ethics ought to have reminded him that their failures should have had a prominence given to them, at least equal to that which has been bestowed on their successes. We can quite believe that it is purely for convenience or through inadvertence that the fiascos have not appeared side by side with the remarkable achievements; but the postponement of their publication while kindred experiments, but of better omen, are given to the world, is calculated to shake confidence in the strictly scientific character of the methods adopted by the Society.

If we have not accepted the invitations which have been extended to us to be present at the demonstrations of the Psychical Research Society, it has been from no want of appreciation of their courtesy, but from a conviction that no good purpose could be served by our availing ourselves of them. We are quite satisfied as to the real nature of the phenomena which we should behold, but we are not at all sure that we should be able to bring those around us to our own way of thinking respecting them. One chilly sceptic can do little to cool down the heated atmosphere of a society of ardent students of the occult; and if he fails, as fail full well he may, to make out the ingenious contrivances by which the tricks are played, he is apt to incur some of the guilt of one who stands by consenting at the martyrdom of science, and is liable to be quoted ever afterwards as a witness of results which he could not account for by recognised laws. If he simply wants to be bamboozled, he had better go and see Maskelyne and Cooke; if he is resolved to get at the truth, and unearth the slimy worms of transcendental perfidy, he must take several discreet friends along with him, and carefully prepare his plans and prescribe his terms.

We do not think that a *prima facie* case has been made out by the Psychical Research Society in favour of any of its results such as to warrant a reference to a court of scientific appeal. We have already adumbrated the circumstances which would, in our judgment, render such a reference desirable, and our notion as to what the constitution of the court should be, and we would only add that the inquiry, if it ever does take place, should be arranged on such conditions as would make legal penalties exigible from any subject of experiment detected in fraudulent misrepresentation. A mesmerist on the treadmill would have a most salutary effect.

## DR. WENDELL HOLMES ON A CENTURY'S PROGRESS IN MEDICINE.

THE main feature of the centennial celebration of the foundation of the Medical School of Harvard University, on October 17, was the oration delivered by the ex-Professor of Anatomy, and author of the well-known "Breakfast Table" series, Dr. Oliver Wendell Holmes. It was devoted mainly to a consideration of the most signal advances in the science and art of medicine during the two half-centuries which have passed since the foundation of the School, and throughout the second of which Dr. Holmes has been more or less intimately connected with it. He began by giving a brief sketch of the founders of the School, and by enumerating the books which were then read by the students, comparing them with the teachers and books of a half a century later, the year in which he himself left Boston to continue his studies in Paris. After a passing allusion to the chief teachers in the latter city at that time, he proceeded to consider the progress that had been made in the half-century then terminating. The chief advances had been, in medical science, the method of studying the human body by its constituent elements—the *general anatomy* of Bichat—which was a great onward movement, with far-reaching results for physiology and pathology; next, the discoveries of Sir Charles Bell and Magendie of the distinct motor and sensitive functions of certain nerves and nerve-roots. Of practical achievements, the most important was the introduction of vaccination, of which most of them would be



ready to say, borrowing Luther's words, that it was a test *stantis vel cadentis medicinæ*. Laennec's invention of auscultation, the recognition of the affection of the kidneys known as "Bright's disease," and the separation of the too familiar and fatal malady, diphtheria, from those with which it was long confounded, were other notable advances made during the period in question. If we compared the two half-centuries, we might balance the following improvements against each other:—Against the discovery of the double nerve function the extended knowledge of the reflex function. Against "general anatomy" the cell doctrine, due to the discoveries made by the use of the achromatic microscope, to which we also owed the discovery of the minute organisms, so important in the history of disease. Against vaccination we might offset surgical anæsthesia. Against the stethoscope the medical thermometer. The honours of lithotomy and those of ovariectomy we must divide between the two periods; while the beneficent changes in the treatment of insanity, effected by the earlier labours of Pinel and Esquirol, had been admirably carried on in the more recent period.

But the last fifty years had been not less richly productive. Modern chemistry and physiology were practically new sciences; while anatomy had added the more exact study of regions and of sections to its earlier methods of investigation. Operative surgery had of late years achieved its greatest triumph in the establishment of abdominal section as a legitimate and safe operation. First employed by an American surgeon (Dr. McDowell, of Kentucky) in 1809, in the hands of Spencer Wells and his contemporaries it had rescued and was rescuing hundreds of lives. Tenotomy by subcutaneous section was another new and valuable operation. Plastic surgery had learned to patch deformities as a skilful housewife patches a garment. Limbs which would have been sacrificed were saved by improved methods of dressing, especially by the use of antiseptics. Resection of joints or of portions of the shaft of a bone had in many cases taken the place of amputation. Lastly, there was the operation of paracentesis with aspiration of the thorax in acute pleurisy, as first practised by Dr. Bowditch and Dr. Morrill Wyman.

In the prevention of disease the gain had been extraordinary. The germ-theory had done much to account for the phenomena of many diseases, and to indicate the means of arresting their development. The recognition of domestic malaria as the frequent source of disease was of vast importance. The phrase "drain fever" had saved hundreds of lives.

It was harder to speak of medical practice—the treatment of internal diseases, fevers, visceral inflammations, and the like. The practice of drugging for its own sake—the fatal bequest of the English apothecary, or "general practitioner," whose profit was made on his medicines—had infected the whole professional public of England to a very considerable extent, and through that public introduced the over-drugging system into her colonial dependencies, and the States which some of these became. But within recent decades great changes have taken place. Bleeding was now an almost unknown operation; antimony had fallen from grace; and calomel, instead of being next the apothecary's right hand, had gone to an upper shelf, where it might be supposed to repent of its misdeeds like Simeon Stylites. And while old drugs and old methods had become obsolete, new drugs and new methods had come in to take their place. As the over-employment of drugs gave way to juster views, the hygienic conditions and personal attendance on the patient were likely to be better cared for; more attention was likely to be paid to air and cleanliness and comfort, and to the kind of nourishment and the modes and times of giving it. It was just in these little unimportant, all-important matters that a good nurse was of incalculable aid to the physician; and the growing conviction of the importance of thorough training of young women as nurses was one of the most hopeful signs of medical advancement. He had always felt that this was rather the vocation of women than general medical, and especially surgical practice; yet he himself had followed a course of lectures given by the younger Madame Lachapelle in Paris, and if here and there an intrepid woman insisted on taking by storm the fortress of medical education, he would have the gate flung open to her as if it were that of the citadel of Orleans and she were Joan of Arc returning from the field of victory.

"I have often wished," said Dr. Holmes in a charac-

teristic passage, "that disease could be hunted by its professional antagonists in couples,—a doctor and a doctor's quick-witted wife making a joint visit and attacking the patient,—I mean the patient's malady, of course,—with their united capacities. For I am quite sure that there is a natural clairvoyance in a woman which would make her as much the superior of man in some particulars of diagnosis as she certainly is in distinguishing shades of colour. Many a suicide would have been prevented if the doctor's wife had visited the victim the day before it happened. She would have seen in the merchant's face his impending bankruptcy, while her stupid husband was prescribing for his dyspepsia and endorsing his note; she would recognise the love-lorn maiden by an ill-adjusted ribbon, a line in the features, a droop in the attitude, a tone in the voice, which mean nothing to him, and so the brook must be dragged to-morrow. The dual arrangement of which I have spoken is, I suppose, impracticable, but a woman's advice, I suspect, often determines her husband's prescription. Instead of a curtain lecture on his own failings he gets a clinical lecture—on the puzzling case, it may be, of a neighbour suffering from the complaint known to village nosology as 'a complication of diseases,' which her keen eyes see into as much better than his as they would through the eye of a small-sized needle. She will find the right end of a case to get hold of, and take the snarls out as she would out of a skein of thread or a ball of worsted which he would speedily have reduced to a hopeless tangle."

But though, continued Dr. Holmes, attention to the conditions surrounding the patient was entitled to precedence over all active interference with the course of disease, we must not be ungrateful to the pharmacist for the useful agents, old and new, which he put in our hands. Opium and cinchona appeared in our modern pharmacopœia with all their virtues, but freed by chemical skill of the qualities which most interfered with their utility. Mercury was no longer considered a panacea, but it was still trusted for important special services. Most of the remedial plants had yielded their essential principles to chemical analysis, and had got rid of the useless portions which made them bulky and repulsive. Iodine, bromine, salicine, in their various compounds had, within the present century, conferred inestimable aid in the treatment of some of the most formidable diseases. Many other new remedies, such as carbolic acid, glycerine, chloral, had been added to the list of those which are of daily use in combating particular symptoms, or are adapted to certain exceptional conditions. The method of administering remedies by inhalation had been greatly extended; the admirable invention of the process of subcutaneous injection had become, next to etherisation, the most rapid and potent means of subduing pain and other forms of suffering; and medical electricity had proved most serviceable in the treatment of nervous and muscular affections.

In the various specialties into which the practice of medicine had become subdivided within these twenty or thirty years, the ophthalmoscope, the improved ear speculum, the rhinoscope, the laryngoscope—held out their mirrors to enlighten us, or opened their mouths to proclaim their own value. Diagnosis had reached a wonderful degree of accuracy; prognosis had become a terrible kind of second-sight which was not always handled carefully enough; treatment gained a little with every decade. The history of therapeutics recorded a succession of marches and counter-marches, with a slight onward movement as the total result of every completed revolution; slight, but precious to humanity.

Having alluded to the most encouraging fact of the growth of medical libraries, and to the work of Dr. Billings and his associates, Dr. Holmes spoke of the new Medical School, in which, as they trusted, many successive generations of medical students were to receive a large part of their instruction. As they entered its doors and surveyed its halls: and lecture-rooms, its laboratories and their appliances, some of them might be ready to exclaim, What! All this to teach a student to cut off a limb or administer a potion? The question was a natural one, and the answer was easy. The Art of Healing was supported, advanced, illuminated, by the various kinds of knowledge which were recognised as belonging to the Science of Medicine. And the Science of Medicine, like all other kinds of classified knowledge, was best taught, most easily and thoroughly learned, when



taught systematically, because facts were most clearly perceived and most firmly retained in the memory when presented in their serial relations. The teaching of the various branches included in a complete medical course required ample provision for its multiplied exigencies.

I have referred, Dr. Holmes went on, to the modern achromatic microscope as having created a new era in medical science. I have no time to tell what it has done for anatomy, physiology, and pathology, besides its great services in other departments of knowledge. But to those who have never seen its miracles I can give an illustration, which they will find it hard to believe I did not borrow from some new Gulliver's Travels or from some Jules Verne's imagination. Yet what I shall say is the simplest truth in the world to any microscopic expert, and may be easily verified by any sceptic. If we had to examine the structure of a human body by the naked eye—or, as I will venture to call it, *gymnoscopic* or rather *gymnopic* inspection—it would make a great difference whether our subject were of the natural dimensions or whether he were a Liliputian or a Brobdingnagian. We should lose sight of many particulars in the structure of the Liliputian which we easily detect in a man of the natural size. We should find many things plain enough in the Brobdingnagian which we do not notice in the man of ordinary dimensions on account of their minuteness. Thus, for instance, we should find that man is shingled all over, or tiled, if you will—covered with scales, more literally, just as a serpent is. The statue of Liberty, the statue of Carlo Borromeo at Milan, that of Bavaria, or the new statue of Germania—any one of these changed to flesh and blood would be a great source of knowledge to a gymnopic anatomist. You will observe that the naturalist could examine only a small portion of one of these colossal figures at a time. Of course the same thing is true of the microscopic man I am going to describe. He must be examined in small fragmentary portions. The individual from whom we will suppose the portion under examination to have been taken was, we will say, of short stature; a little more than 5 ft. 2 in. in height, and weighing 120 lbs. Our microscope, a rather powerful but not extraordinarily powerful one, magnifies a thousand diameters. This fragment, then, thus magnified, represents an individual just one mile in height. He would ten times overtop the loftiest of the pyramids, twenty times the tallest of our steeples. His breadth and thickness being in proportion to his height, his weight would be 120,000,000,000 lbs., equal to 60,000,000 tons. He could take our State House up as we should lift a paving-stone, and fling it into the waters beyond Boston Light-house, cleaning out that palace of the people by a summary process quicker than the prætorian bands of Domitian or Commodus would have cleaned out a Roman Senate Chamber that dared to have an opinion of its own. Such is the microscopic man as we see him piecemeal in that wonderful instrument. It is the telescope of the microcosm—the master-key to the portals of a new universe—and the student must be carefully taught how to use it.

Speaking of the department of Anatomy, over which till lately he presided, Dr. Holmes said that the management of the difficult, delicate, and all-important work of the dissecting-room, committed to the care of a succession of laborious and conscientious demonstrators, as he had known it through more than the third of a century, had been discreet, humane, faithful, and that the record of that department was most honourable to them and to the classes they had instructed.

When the noble hall which was to form their museum was filled, they might expect to find there a perfect golgotha of skulls, and a platoon of skeletons, open to the sight of all comers. They would find portions of every human organ. They would see bones softened by acid and tied in bow-knots; other bones burned until they were as light as cork and whiter than ivory, yet still keeping their form; sets of teeth from the stage of infancy to that of old age, and in every intermediate condition, exquisitely prepared and mounted; preparations that once formed portions of living beings, now carefully preserved to show their vessels and nerves; the organ of hearing exquisitely carved by French artists; specimens of human integument, showing its constituent parts in different races,—among the rest, that of the Ethiopian, with its cuticle or false skin, turned back to show that God gave him a true skin beneath it as white as their own. Some of these specimens were injected to show

their bloodvessels; some were preserved in alcohol; some were dried.

To one of the great interests of society, said Dr. Holmes in conclusion, the education of those who are to be the guardians of its health, the stately edifice which opens its doors to us for the first time to-day is devoted. It stands solid and four-square among the structures which are the pride of our New England Venice—our beautiful metropolis, won by well-directed toil from the marshes and creeks and lagoons which were our inheritance from nature. The magnificent churches around it let in the sunshine through windows stained with the pictured legends of antiquity. The student of nature is content with the white rays that show her just as she is: and if ever a building was full of light—light from the north and the south; light from the east and the west; light from above, which the great concave mirror of sky pours down into it—this is such an edifice. The halls where Art teaches its lessons and those where the sister Sciences store their collections, the galleries that display the treasures of painting and sculpture, are close enough for agreeable companionship. It is probable that in due time the Public Library with its vast accumulations will be next-door neighbour to the new domicile of our old and venerated institution. And over all this region rise the tall land-marks which tell the dwellers in our streets and the traveller as he approaches that, in the home of Science, Arts, and Letters, the God of our Fathers is never forgotten, but that high above these shrines of earthly knowledge and beauty are lifted the towers and spires which are the symbols of human aspiration ever looking upward to Him, the Eternal, Immortal, Invisible.

## ABSTRACTS AND EXTRACTS.

### IODOFORM IN PROF. BILLROTH'S CLINIC.

FROM an interesting communication by Dr. Jaggard, studying in Vienna, to the *Philadelphia Medical Times*, No. 410, on "Prof. Billroth's Methods of Antiseptic Surgery," we extract the account of the preparations of iodoform which he employs:—

"Billroth's dressing of the wound after operations differs from Lister's chiefly in the substitution for carbolic gauze of iodoform in the form of powder or of gauze. Outside the operating-room iodoform is employed (1) as a powder, sprinkled over wounds, as upon the perineum, by Wölfler's iodoform-duster, and (2) as gauze, which may be either 'hydrophile' or adhesive. For the preparation of *hydrophile iodoform gauze*, a coarse, unbleached muslin, which has been deprived of its fatty particles, is placed in a basin, washed with carbolic acid, and sprinkled with iodoform powder until the cloth assumes a yellow colour. According to the thoroughness of this operation, the gauze contains from 10 to 20 per cent. of iodoform. Fifty grammes of iodoform are sufficient to impregnate six and a half metres of muslin. Hydrophile gauze costs in Vienna about eight cents per metre. For the preparation of the *adhesive iodoform gauze* the muslin is saturated with a mixture of alcoholic solution of colophonium and glycerine. The gauze is dried carefully, and impregnated with iodoform in the same manner as the hydrophile. For six metres of gauze it requires 230 grammes of iodoform and 100 grammes of colophonium which is dissolved in 1200 grammes of 95 per cent. alcohol, to which fifty grammes of glycerine are added." This gauze costs about thirty-two cents per metre. The chief use of adhesive iodoform gauze is as a hæmostatic in cases of parenchymatous hæmorrhage.

"(3) Iodoform glycerine: This consists of from ten to twenty parts of iodoform to 100 parts of glycerine, and is employed for injection into cold abscesses after the evacuation of pus. (4) Iodoform collodium is composed of one part of iodoform to ten parts of collodium, and is used in enormous quantities in the ambulatorium. It is a sovereign remedy for cuts and slight bruises. (5) An ethereal solution of iodoform (one part iodoform and seven parts ether) forms a very convenient covering for syphilitic scleroses and for mucous patches in the buccal cavity. (6) For iodoform bacilli the formula is—iod. pulv. xx., gum acaciæ, glycerinæ, amyli, aa ii.; to be formed into bacilli of various sizes. The value of these cannot be overrated when fistulous tracks or



inaccessible wound-surfaces have to be treated. In endometritis, cystitis, pyothorax, and certain urethral affections, the bacilli are of great worth. (7) Iodoform vaseline varies in the amount of the drug which it contains (from 20 to 50 per cent.), and is used as an application to venereal ulcers."

#### LUPUS OF THE LARYNX.

A PAPER on this subject, by MM. Chiari and Riehl, appears in the *Vierteljahrsschrift f. Dermatol. u. Syphilis*, 1882, page 663, and *Centralblatt f. Klin. Medicin*, No. 41, 1883. A review of the present literature of the subject goes to prove that the absolute diagnosis of the condition is only to be made when some affection of the skin accompanies it, and when the possibility of syphilis, tubercle, and carcinoma can be excluded with certainty. Of sixty-eight cases (twenty-six males and forty-two females, all suffering from lupus of the skin or of various mucous membranes) investigated by the authors, only six could be definitely diagnosed as lupus of the larynx. The following appears to be the most usual mode of onset. Small excrescences of the size of hemp-seeds, some isolated and others in groups, appear upon the epiglottis and, later, upon the ary-epiglottic folds. Similar outgrowths may form on the vocal cords, or may even extend into the trachea. These nodules are seated upon a slightly hyperæmic mucous membrane, and tend to increase both in prominence and in superficial area. They may end in resolution, a slight scabbing taking place, followed by cicatrization, with shallow depressions of the mucous membrane; or ulceration may occur, of very long duration, often accompanied by glandular swellings in the neck, and leading to deep cicatrices, in which fresh nodules are very prone to recur. Unlike lupus of the nose, there appears to be but little tendency for laryngeal lupus to attack the cartilaginous structures. The symptoms of necessity depend upon the part of the larynx invaded. Women would appear to be more liable to the affection than men. Scrofulous or tuberculous diatheses do not seem to have any influence either upon the origin or the course of the disease. From tubercular disease of the larynx it differs in its proneness to attack the epiglottis, and to spread from thence downwards, and in the scarring about the healed nodules or ulcers. From carcinoma it is distinguished by the absence of the cachexia and by the age of the patient, and further, by its tendency to disintegration rather than proliferation. The differential diagnosis from the syphilitic affections is less easy. The character of the ulcers themselves forms the most marked point of distinction; the sharply defined rounded edge, and the surface covered with yellowish secretion peculiar to the syphilitic ulcers, will often serve to determine their nature. In some cases, however, the course of the disease and its amenability to treatment are the only means of coming to a correct diagnosis. The prognosis must invariably be very guarded. Complications such as perichondritis or even stenosis of the trachea have been observed, although only in a very small proportion of the cases. Treatment must be general, especially by cod-liver oil, and local, by caustic remedies such as iodoform or nitrate of silver.

DR. FRANCIS WARNER has devised an apparatus for measuring and recording in a graphic manner the movements of the hand and fingers. The apparatus consists of four principal parts, viz.:—1. An arrangement of rubber tubes to be attached to the hand, one tube to each finger or moving part. From these pieces of thin conducting tubing carry air to the tambours. 2. A frame supporting the recording tambours and electrical signals. 3. An electrical "contact-making tambour." It is a modification of the Marey tambour, adapted to the purpose of actuating an electrical counter. 4. An electrical counter. A full description of the apparatus will be found in the *Journal of Physiology*, vol. iv., No. 2. The author believes that "by this method of investigation we obtain tracings of muscular movements due to the action of the central nerve mechanism, and obtain some evidence as to the effects of brain action in its different parts as indicated by muscular movements." Whether it will satisfactorily fulfil the expectations formed of it, time alone can reveal. Meanwhile, it is impossible to deny that Dr. Warner has displayed great ingenuity in devising and constructing the apparatus.

#### NOTICES OF BOOKS.

*A Manual of the Operations of Surgery.* For the use of Senior Students, House-Surgeons, and Junior Practitioners. By JOSEPH BELL, F.R.C.S. Edin., etc. Illustrated. Fifth Edition, revised and enlarged. Edinburgh: Maclachlan and Stewart; London: Simpkin and Marshall. 1883. Pp. 311.

It is needless for us to say much about such a well-known and obviously popular work. It makes no pretension to be an exhaustive treatise, and yet it touches on most of the more usual operations. After such a career as it has enjoyed, and seeing that such recent operations as gastrostomy and gastrectomy have been added, we almost wish that the author had gone a step further, and included the operations of nephrotomy and nephrectomy, both of which are easier and more successful than the corresponding operations on the stomach. The chapter treating of operations on the cranium and scalp, too, might advantageously be developed in greater detail. Cerebral localisation is every year becoming more and more a precise science, and its teaching should neither be forgotten nor ignored by the surgeon who is about to trephine. When a new edition is required, we think our author will do well to add a few cerebral landmarks. Such an addition would be highly appreciated, we are sure, by the "junior practitioners." Meanwhile, we wish for this fifth edition as favourable a reception as its predecessors have met with.

*A Guide to the Microscopical Examination of Drinking-Water, with an Appendix on the Microscopical Examination of Air.* By J. D. MACDONALD, M.D., F.R.S. With twenty-five lithographic plates. Second Edition. London. 1883.

To the world of minute water-fauna, an excellent introduction. In an ascending series of twenty-five good lithographs are delineated types of all dead and living things, from earthy and organic *débris*, through desmids, diatoms, and rhizopods, up to insects, likely to occur in wholesome and unwholesome water. Some considerable labour has been bestowed upon the classification, and the author has transferred the whole of the Flagellata from the Protozoa to the Protophyta—a bold but, on the whole, justifiable step.

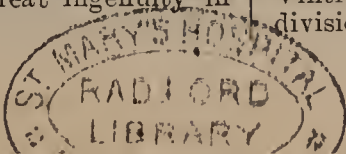
Having reached a second edition, it would not have been out of place to have added to each description a scale, to have given some directions as to the staining of bacteria, and to have mentioned Koch's method of rendering the whips or flagella of such bacilli as *B. subtilis* and *B. tremulans* visible. The clearly expressed text contains many ingenious hints; those relative to the micro-chemistry of water and the collection of floating particles from the air being specially valuable. The book deserves a place in the library not only of health officers and analysts, but of all microscopists.

*The Sanitary Journal.* Edited by ED. PLAYTER, M.D. Toronto.

WE have received several numbers of this periodical, which is a popular publication in the worst sense of the word. Facetiæ of the stalest kind, clippings from unprofessional papers, crude and unscientific assertions, form a large part of each number. We refrained a few months ago from refuting the editor's illogical lucubrations on small-pox and vaccination, as being unworthy of our notice. In the larger part of each number paste and scissors are freely used; and we may refer, for instance, to the copious quotations from our own pages, which in the August number reach one-sixth of the whole.

*Medical Guide to the Mineral Waters of France and its Wintering Stations.* By A. VINTRAS, M.D. London: J. and A. Churchill. 1883. Pp. 320.

FRANCE, it seems, can boast altogether of about 1000 mineral springs, and the aim of the work before us is to supply information, especially to medical men, as to the nature and therapeutic properties of the more important of these. Dr. Vintras divides France into six main groups, viz.—1. Central division: Here the waters are chiefly saline, containing





bicarbonate, sulphate, and chlorate of soda; free carbonic acid is very abundant. 2. Pyrenean division: Here the springs are almost all characterised by the predominance of the sulphurous element. 3. Southern division: Here the springs are mostly ferruginous or alkaline, or a combination of both. 4. Eastern division: Sulphates of soda or lime, and salts of iron, form the most important constituents of the springs in this region. 5. Northern division: The springs here belong to two classes only, the ferruginous and the sulphurous, and, though not numerous, are of considerable importance. 6. Western division: Here there are only two springs, one sulphuretted, the other ferruginous. One chapter is devoted to the springs of Corsica, and the volume concludes with a brief description of the various wintering stations in France. Dr. Vintras has produced a work which will undoubtedly prove useful to physicians who wish to send their patients to France, and who have not the opportunity to investigate the several watering-places for themselves.

*The Test Series: a New Series of Books for Students' Use in Examinations.* No. 1. Questions on Human Anatomy, by SAMUEL POTTER, M.A., M.D.; with 63 illustrations, pp. 139. No. 2. A Compend of the Practice of Medicine, by DANIEL HUGHES, M.D.; Part I., pp. 105. No. 4. A Compend of Human Physiology, by A. P. BRUBAKER, M.D.; pp. 133. London: Henry Kimpton. 1883.

THIS series of "compend" appears to be an English edition of an American work in course of publication. We have many times expressed our opinion on the all-but uselessness of such cram books. For the student they are absolutely insufficient, and more likely to lead him astray than to prove useful; while for practitioners the bareness of the facts recorded deprives them of any value they might otherwise possess when read in their proper context. Our knowledge of practitioners leads us to think that when they find it necessary to refer to their books about any moot point in either diagnosis, prognosis, or treatment, it is to the largest and amplest treatises they would look, rather than to mere "remembrancers," such as these.

*A Pocket-book of Physical Diagnosis.* By Dr. EDWARD T. BRUEN. Second Edition. Philadelphia: Blakiston. 1883.

THIS work, whose author lays no "special claim to originality of matter," deals with all the essential points to be noted in the physical examination of the heart and lungs, but does so in a style which robs it of any value that it might otherwise possess as a guide to the practical physician or student. Simplicity of arrangement and clearness of diction are qualities which no practical handbook can afford to dispense with. The busy practitioner would probably be tempted to transfer the book from his pocket to his book-shelf on reading that supplementary breathing "is best appreciated by contrasting the idea of the pulmonary substance, derived from the examination of normal areas, or areas of vicariously acting lung, with the changed elasticity and increased density of truly pathological pulmonary tissue."

*Sexual Impotence in the Male.* By WILLIAM A. HAMMOND, M.D. New York: Bermingham and Co.

IN the whole range of medical literature it would be impossible to find the equal of this book for platitude and prurency. No averagely well-informed medical reader could extract from it the smallest practical help; for the subject-matter is not new, nor its handling fresh in anything but obscene detail. Whatever of truth or usefulness the book may contain has for long been well and widely known. Its pages remind us of extracts we have seen from that literature of "nervous diseases" which, in fly-leaf and pamphlet form, is placed in the hands of young men in our streets, to their infinite physical, moral, and financial disaster, and are full enough of unadorned obscenity to satisfy the most ardent patron of the productions of Holywell-street. On the *raison d'être* of such a publication as this we will not venture to speculate. It is not too much to say that whatever readers the book may have will probably be largely of the non-professional class, to some of whom, both in matter and style, it is, in appearance at least, adapted. The result of such perusal would be the production, rather than the avoidance, of the evils treated of.

*The Journal of Nervous and Mental Disease*, July, 1883,

Is mainly occupied with reports of cases. Dr. Seguin has a paper on Spanish Asylums for the Insane, from which it appears that in this, as in most other things, Spain lags behind the rest of the civilised world. There is probably no other country in which many patients, both male and female, are chained to the walls of a lunatic asylum. A case of chronic myelitis, of nineteen years' standing, is reported by Dr. H. Schmidt, completed by an account of the post-mortem, and of the microscopic appearances of the cord, medulla, and pons. The prominent pathological appearances are stated to be—(1) a congestion or degeneration of almost all the bloodvessels; (2) a "fibrinous exudate" effused into the septa of the cord; (3) atrophy of the nerve-fibres; and (4) degeneration of the nerve-cells. The microscopic record, which has evidently been made with care and industry, is illustrated by a lithograph engraved by the author himself, which is said by the editor to be probably the finest ever issued by the journal. It is not, however, extraordinarily good: many of the outlines have a degree of definition which bespeaks a heavy hand rather than a good objective, and the fasciculi of nerve-fibres look like bundles of sticks. A large portion of the journal is, as usual, occupied by the reports of the meetings of the American Neurological Association.

## GENERAL CORRESPONDENCE.

### M E S M E R I S M.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your last article on this subject compels me again to ask space for a short reply.

I purposely avoided commenting on the reference in your former paper to *vivisection*; simply because I preferred leaving a somewhat damaging blunder uncorrected, to deviating into a region so remote from the matter in hand. But as the blunder is now repeated in more precise terms, and as it belongs to a class peculiarly apt to get stereotyped and perpetuated, I have no choice but to state that the position apparently attributed to me is one the folly and mischievousness of which I have done my very utmost to expose. If my critic (whose courtesy of tone in this second paper I gladly recognise) can ever find time to peruse the very moderate number of pages that I have devoted to the question, he will see that the sweeping terms in which he describes me as "an opponent of vivisection" are as unjustifiable as, after the supposed perusal, they would be wantonly unjust.

Putting aside this irrelevant topic, he would, I think, be surprised to know with how much general sympathy I followed the rest of his argument. I am puzzled, I admit, *à propos* of the series of experiments before criticised, at a dark hint about "internal evidence fatal to any theory of community of sensation." But curiosity about this may fairly rest until some flaw has been shown in the *external* evidence on which we relied; and, on the whole, the objections now made are not of a sort that can be profitably dealt with on paper. I am well aware how impossible it is to believe that other people have taken adequate precautions, and how enormous is the strength of the general presumption from the known history of imposture. Nothing would be gained by assertions of our own scepticism and detective instincts and general lack of "the innocent and trusting mind" which our critic attributes to us, and which, in these inquiries at any rate and in spite of his polite assurance to the contrary, we must still hold to be incompatible with common sense; nor, as he himself says, would a further detailed description of the precautions actually taken be any more convincing. What we want, and what he professes to want, is a large accumulation of harmonious testimony; and I the more regret that the invitation which I addressed to him, to take a part in this accumulation, is not accepted—nay, even that its acceptance could have no possible result; since what can the utmost powers of investigation avail when linked with such a "relentless and uncompromising scepticism" as would, under all conditions and to the end of time, prefer the hypothesis of a defect in the investigator's penetration to that of the reality of a previously unrecognised fact? Fortunately, however, all trained observers are



not thus invincibly forearmed against the results which the exercise of their faculties may reveal to them; and this brings me to the one point raised which both needs and admits of a short and decisive answer. I am asked whether any scientific men whose judgment would carry weight with the medical profession have witnessed the performances, and, if so, what conclusion they arrived at. The "finger" experiment has been witnessed by several gentlemen (and will soon, I hope, be witnessed by many more) to whom the above description applies, and the conclusion at which they arrived was partly positive and partly negative. On the one hand, not one of them had the slightest doubt that the insensibility was genuine; on the other hand, not one of them had the slightest idea how, on recognised laws, it was to be accounted for.

I am, &c.,  
14, Dean's-yard, S.W.

EDMUND GURNEY.

### "SYPHILIS OR TUBERCLE?"

[To the Editor of the Medical Times and Gazette.]

SIR,—In the last number of your journal there appears, *à propos* of the case of cerebral tumour which I brought before the Clinical Society at its last meeting, an annotation under the above heading which may lead to some misapprehension, and which I therefore beg you will allow me to correct. I did not bring the question which was raised by my case "unintentionally" before the Society, nor did I, when called to see the patient, make the diagnosis of syphilitic tumour. It was plainly stated in my paper that I made the diagnosis of cerebral tumour, and this was fully confirmed by the autopsy.

No one, however, could have been more surprised than myself to find, when the specimen was sent to me, that it presented the appearances of gummata and vascular disease which are at the present time, rightly or wrongly, held to be characteristic of syphilis. I am quite sure that you, sir, or any of your readers who are familiar with such specimens, would, on seeing it, have at once pronounced for the specific nature of the lesions. But as no indications of syphilis had existed during life, and the clinical features thus showed a complete discrepancy with the evidence of morbid anatomy, I decided to have another opinion on the pathological significance of the post-mortem changes, and therefore sent the brain for minute examination to Dr. Bevan Lewis, of the West Riding Asylum, without giving him any indication of the symptoms which had been present during life, or my own notions concerning the specimen.

Dr. Lewis, who is deservedly considered one of the ablest and most experienced observers in the pathological anatomy of the nervous centres, expressed himself, without any hesitation, for the specific nature of the lesions; and his report, which is full and explicit, has been incorporated with my paper.

I offered, during the discussion which took place after the reading of my communication, to hand the specimen, if still in existence, for further examination to a committee of the Society; but Dr. Lewis has since written to me to say that it has unfortunately been destroyed. As far as this case is concerned, the matter is therefore at an end; but I have no doubt that such a committee, if appointed, could only have arrived at the same conclusion as Dr. Lewis and myself. My communication to the Clinical Society will, however, have answered its purpose if it be instrumental in drawing the attention of pathologists to a nicer discrimination between lesions which are at present believed to be caused by the action of one poison only—possibly in the direction indicated by yourself with regard to a differentiation of bacteria inhabiting such growths.

I am, &c., JULIUS ALTHAUS, M.D.

48, Harley-street, Cavendish-square, W., Nov. 3.

**EXCISION OF THE VAS DEFERENS IN EXCESSIVE MASTURBATION.**—Dr. Haynes, of Concord, refers, in the *Boston Med. Jour.*, August 9, to three cases of desperate masturbation, in which, in place of castration, he performed excision of the vas deferens. "An incision midway between the external inguinal ring and the testis laid bare the duct, from which a half-inch was resected, and the slight wound closed by sutures." In each great amelioration in the mental and corporeal condition of the subjects of the operation ensued.

## REPORTS OF SOCIETIES.

### THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 6.

J. W. HULKE, F.R.S., President, in the Chair.

#### DIVERTICULA OF SMALL INTESTINES.

DR. NORMAN MOORE showed the intestines of a man, aged forty, containing three diverticula in the first three feet of the small intestine, and a congenital structure at the commencement of the jejunum. The diverticula were each an inch long, and about as much in diameter, and were on the mesenteric side of the intestine. Their walls consisted of all the intestinal coats, and they were not mere hernial protrusions. They might, perhaps, have some relation to the pyloric cæca of fish. The stricture was caused by an internal ring of mucous membrane, and would but just admit the little finger. It was obviously a variety in development, and not due to any morbid change. Neither peculiarity gave rise to symptoms, and the man died of bronchitis. Such cæca had been described, but were very rare, while congenital stricture so high up in the small intestine was still rarer.

Mr. F. TREVES denied the rarity of such cases as the present. He had seen a good many cases of this kind, and the diverticula were mostly on the mesenteric side of the intestine, and were usually high up. Dr. Moore's case differed, however, from ordinary cases in that muscular tissue was present in the diverticula, and also in the fact that there appeared to be no history of obstruction or distension.

Mr. SUTTON said that on examining the body of an infant that had died on the fifth day after birth, he had found, one inch below the pylorus, a stricture forming a pouch-like termination, so that there was no connexion with the duodenum. The length of time which the infant lived was interesting.

Dr. GOODHART was not quite satisfied as to the absence of distension in Dr. Moore's case. In one specimen in the College of Surgeons there was no definite history of distension obtainable. He thought that there might have been some long-continued distension at a previous date, which had passed off, and that then hypertrophy of the muscular elements occurred.

Dr. MOORE, in reply, said there was no history of obstruction, and no distension was observed, but the points were not specially inquired into. As regarded the rarity of such cases, out of 3400 examinations at St. Bartholomew's Hospital, the present was the only instance of diverticula on the mesenteric side, against twenty-seven instances of Meckel's diverticula.

#### ANASTOMOSIS OF THE CORONARY ARTERIES.

Dr. SAMUEL WEST read a communication on the above subject. After briefly referring to the published cases of obliteration of one coronary artery, he alluded more in detail to a most remarkable instance of obliteration of both coronary arteries in a patient aged fifty-six, who died of carcinoma without having presented any cardiac symptoms during life. Both coronary arteries were calcified and obliterated by a cretaceous clot, which extended for some distance into the branches of both vessels. The heart was slightly fatty; and the narrator of the case had not given any explanation of the manner in which the nutrition of the heart was kept up. His own case, which he brought forward that evening, was that of a man aged fifty, whose heart was greatly dilated (especially on the left side) and very fatty. The aorta was extremely calcareous, especially behind, the change extending even down behind the cusps; but these were only slightly thickened. The right coronary artery was large, but its mouth much narrowed by the cretaceous deposit. The orifice of the left coronary artery could not be seen, being completely obliterated by a calcareous plate. Both arteries were of normal size beyond their orifices. Other viscera natural. It was important to note that the left coronary artery contained blood, which could not have entered at its orifice. Passing on to consider the normal circulation in the coronary arteries, he pointed out that Hyrtl's view, that each coronary artery supplied its own half of the heart and nothing more, was contrary to fact—the cases to which he had referred and the specimen he exhibited that evening affording a complete disproof.



of it; and he then alluded to some recent investigations of his own with injections, which showed in the most unmistakable manner that there was a very free anastomosis between the two coronary arteries, so much so that it was necessary when injecting one coronary artery to close the mouth of the other to prevent the injection running out, and under intermittent pressure the fluid escaped from the opposite artery in jets; by a curious coincidence these experiments had been conducted simultaneously with, though perfectly independently of, those referred to by Dr. Wickham Legg in his Bradshawe Lecture. That the injection should be successful it was necessary that the material used should be fine; that the heart should be taken out not too long after death; and that during the experiment it should be warmed artificially. With these precautions it was easy to prove that the heart could be supplied with blood from one coronary artery. It was very remarkable how large an amount of obstruction there might be to both coronary arteries without any cardiac symptoms during life, or any gross pathological change being recognisable in the muscle of the heart after death; and he wished to draw especial attention to the question of blood-supply to the heart in such cases. When only one coronary artery was obliterated, the circulation could be carried on by means of the other quite easily, as had been shown, but the explanation of the mode in which the nutrition of the heart was preserved when both coronary arteries were obliterated was not easy to find. The existence of accessory coronary arteries naturally occurred to the mind, and it had been suggested that the heart might be nourished directly from the ventricle. Another and an additional difficulty was that in these cases the heart was generally enlarged, and therefore required an increased supply of blood for its nutrition. When the mouths of the coronary arteries were obstructed, one of two things must happen—either the blood must pass through the narrow orifices at a greater speed, or for a much longer time. The latter might explain some of the cases in which the pulse was very slow. The first of these causes could only result from either increased propulsive power of the heart, or increased tension in the aorta; and in either case there would be a demand for an increased blood-supply to the heart. The discovery of a collateral arterial circulation of the heart would afford the most easy and simplest explanation, but he knew of no evidence whatever that such a condition existed.

Mr. HENRY MORRIS was much interested in Dr. West's paper, and referred to some remarks he had made at a previous meeting of the Society. Some years ago, at his suggestion, some injections had been made in the hearts of young subjects, and it had been found that a fine injection always passed from one coronary artery to the other; and he had thereby been quite satisfied that the right and left coronary arteries freely anastomosed.

Mr. SHATTOCK thought that Hyrtl had used wax in his experiments, which naturally would not pass through the capillaries. A similar statement used to be made in regard to the lingual arteries, but a fine injection passed readily from one to the other.

Mr. HULKE referred to the assertion that used to be common, that injections could not pass from the ligamentum teres into the head of the femur; but a fine injection could be made to pass easily.

#### THE PATHOLOGY OF CONGENITAL CLUB-FOOT.

Mr. R. W. PARKER and Mr. SHATTOCK showed specimens of this malformation. In one foot the muscles and nerves were dissected; in the other foot the shape of the tarsal bones was demonstrated. The authors likewise exhibited microscopic preparations of the spinal cord, of the nerve trunks, and of each of the muscles of the limb. These showed no appreciable deviation from the normal histological standard. In the bones, however, certain changes were described, but the authors considered that these changes were not primary, but were the result of the altered position in which they (the bones) had lain. They chiefly based this view on the fact that, though altered in extent, the normal outlines of the articular surfaces could still be distinctly traced. Reviewing the various theories of causation, they rejected the nerve-theory on the evidence of their own case; for a like reason the bone-theory, which the late Prof. Hüter had chiefly supported, was rejected; and they agreed with Mr. W. Adams that these changes were a result,

and not a cause. As to whether talipes was only an exaggeration of a physiological standard, they were undecided, because some additional power was required to bring about a well-marked case. They believed that the mechanical theory in some shape or other best explained their own case. Brief allusion was also made to the insufficiency of the classification into the congenital and non-congenital forms. The authors thought nerve-lesions may exist in some congenital cases.

Mr. ADAMS thought it was much to be regretted that the hospital museums in London contained so few specimens of these affections. He had brought before the Society, thirty years previously (and the specimen had been recorded in the third volume of the Society's *Transactions*), a case which conclusively proved, in his estimation, that the same deviations which were produced in the adult could be found present in the newly-born infant. Anatomically, he fully agreed with all that Mr. Parker said, but, as regarded the cause, he still maintained his belief in the central nervous origin of club-foot, the larger muscles acting under some unexplained cause, and drawing up the os calcis into an oblique position. Club-foot might be found as early as the fourth month of intra-uterine life, and surely no mechanical cause could be invoked to account for it then. Some cases of breech presentation might, perhaps, have club-foot of mechanical origin.

Dr. WILKS thought that this was a question which might be further developed by the Society with great advantage. It was the custom of the present day to attribute most local lesions to a central lesion. He wished especially for information as to the occurrence of talipes in cases of infantile paralysis. This latter was stated to be a common cause of talipes in works on surgery; but he had never seen a case of infantile paralysis in which rigidity subsequently appeared, and he wished to know whether there was any real evidence in support of this widespread belief.

Mr. ADAMS asked Dr. Wilks if he believed in the existence of paralysis anterior to birth; to which

Dr. WILKS replied that he had no opinion on the subject.

Mr. HULKE thought that it was probable that some of these cases were due to pressure, and some to nerve-lesions. He thought, however, that there was not in cases of talipes any proof of paralysis. As regarded the physiology of the affection, Mr. Parker had said that there was an exaggeration of the natural attitude. For his own part he preferred to adopt the view of an old German writer, who regarded talipes as a persistence of one phase of foetal life.

Dr. SILCOCK thought that Mr. Adams had somewhat misrepresented Cruveilhier's views in assigning the talipes to pressure of the uterus upon the foetus. That author had considered pressure of one part of the foetus against another to be the cause, and he (Dr. Silcock) showed a specimen very similar to Cruveilhier's celebrated one, in which there was talipes calcaneus on one side, and valgus on the other, both due undoubtedly to pressure against the chin.

Dr. LONGHURST asked whether the malformation was common throughout the animal kingdom, as that, if the case, would be against the theory of pressure on the foetus by the uterus.

Mr. PARKER, in reply to the President's observations, thought that a persistence of a foetal case explained those cases that died at birth, and that an exaggeration of that state would account for the later cases. He did not wish to exclude a central nervous origin altogether, but the occurrence of talipes in early foetal life was strongly against the nervous theory, as at that period the nerve-centres were not fully developed, and the muscles therefore would have no power.

#### TWO CASES OF RUPTURED HEART<sup>1</sup>

Dr. W. B. HADDEN showed these specimens. 1. Case of a boy, aged six, who had swelling of the left foot two weeks before admission. On examination there was a large ulcer on the outer side of the left ankle, exposing the peronei tendons and the external saphena vein. There was some pain and tenderness about the right hip. The boy had severe constitutional symptoms—cough, pneumonic signs, and high fever. He died suddenly two days after admission. There was an abscess behind the right hip-joint, but not connected with it. The left calcaneo-cuboid joint was quite disorganised. There was an abscess, with localised pleurisy, in the lower lobe of the left lung, besides numerous small abscesses in the kidneys. The pericardium was filled with



recent clot, which had escaped from the heart through a rupture in the wall of the left ventricle posteriorly, near its junction with the auricle, and just below the coronary sinus. The external opening was larger than the internal, ragged, and partially plugged with toughish clot. The internal opening, which was smaller and more clearly defined, was concealed by the posterior flap of the mitral valve. There was very intense pericarditis. The muscular fibres did not appear unusually soft. There was no endocarditis. The case was doubtless one of pyæmia. It was probable that there was myocarditis secondary to the pericarditis, and that the muscular walls gave way at a spot naturally weak—viz., the junction of the left auricle and ventricle. 2. A gentleman, aged about fifty, who died very suddenly without any previous symptom. At the autopsy there was a ragged rent, two inches long, passing right through the anterior wall of the left ventricle. The muscular fibres were found on microscopical examination to be fatty. The heart itself was surrounded with much fat.

Sir W. MAC CORMAC had seen the last patient referred to during life, and he had died five hours after the first symptom. He wished to know how long a man could live after rupture of the heart.

Dr. WILKS observed that the rupture took place gradually, and not all at once. It was impossible to say how long a patient might live; each case must be judged on its own merits.

Dr. MOORE referred to a ruptured bullock's heart that was in the museum of St. Bartholomew's Hospital.

Dr. HADDEN said that the appearances in his first case bore out the idea that the rupture had taken place slowly.

#### STRUCTURE OF HÆMORRHOIDS.

Mr. W. J. ROECKEL, after referring to the old belief that a hæmorrhoid was an angioma, and mentioning that Ledrun had described the structure of a pile 150 years ago, gave an account of the microscopical appearances, derived from the examination of between thirty and forty cases. A hæmorrhoid consisted of a mucous membrane, a muscular layer, and a submucous layer containing bloodvessels. Over the outer part the epithelium was squamous, but there were no sweat-glands; above this it was columnar. The muscularis mucosa was hypertrophied. The veins were much more prevalent than the arteries, and their walls were thickened.

#### RECOVERY FROM NECROSIS OF THE LOWER JAW.

Mr. WARREN TAY showed a boy who had ten years previously had necrosis of the whole of his lower jaw. The boy at that time was aged four years, and had typhoid fever with ulceration of gums; this led to exposure and ultimate necrosis of the whole of the lower jaw. In five months' time new bone could be felt, and seven months from the onset of the disease he removed the whole of the lower jaw except the condyle on the right side. The patient had, at the present time, a very fair substantial lower jaw; on the left side one tooth was showing. There was no difficulty in taking food. Mr. Tay referred to cases published by Mr. Savory and Dr. Bristowe. It was probable that this was a case of phosphorus-necrosis, as the boy used to suck lucifer-matches. And he concluded by referring to a case published by Mr. Simon, where a man got phosphorus-necrosis by sucking pieces of ginger which he kept in a waistcoat pocket along with loose lucifer-matches.

#### CARD SPECIMENS.

Dr. SIDNEY COUPLAND: Ulceration of the Large Intestine in Enteric Fever.

Dr. R. W. BURNET: Sacculated Aneurysm of the Aorta.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following have been appointed Examiners for the Membership and for the Licence in Sanitary Science for the year 1883-84. Membership: Clinical Medicine—Drs. G. F. Duffey and J. M. Purser; Principles of Medicine, Medical Anatomy and Medical Chemistry—Drs. Cruise, V.P., and J. M. Finny; Practice of Medicine and Principles of Public Health—Drs. C. J. Nixon and F. J. B. Quinlan. Sanitary Science: Etiology of Disease—Dr. F. R. Cruise, Vice-President of the College; Sanitary Law—George R. Price, Esq., barrister-at-law; Sanitary Engineering—Mervyn Pratt, C.E.; Chemistry—Dr. Walter G. Smith; Vital Statistics, Climatology, and Meteorology—Dr. F. J. B. Quinlan.

## OBITUARY.

### HOTHAM GEORGE ORLEBAR, M.D., M.R.C.S.

DR. ORLEBAR, whose untimely death from enteric fever, on the 1st inst., has been heard with great regret by all who knew him, was the youngest son of Admiral Orlebar, of St. Leonards-on-Sea. He was born in November, 1853, and had thus hardly completed his thirtieth year. He received his professional education at St. Thomas's Hospital and Aberdeen, after which he was for three years Resident Medical Officer at the Victoria-park Hospital. About two years ago he settled as a general practitioner in the neighbourhood of Eaton-square, and shortly after was elected one of the medical officers to the Royal Pimlico Dispensary. He entered enthusiastically into the work of this institution, daily visiting a large number of patients at their own homes. He was a great favourite with all classes of patients, and had the prospect of a very successful career before him. He had been out of health for some time, but his last illness did not declare itself till the 5th ult. He died suddenly at last, but not unexpectedly, from an attack of hæmatemesis.

### JAMES MOORE, M.D. EDIN.

WE regret to announce the death of this well-known surgeon and distinguished artist. Dr. Moore was born in 1819, studied at Edinburgh, where he graduated M.D. in 1842, taking his Membership of the English College of Surgeons in the same year. He was always a clever draughtsman, and when quite a young man prepared the illustrations for Syme's Surgery. He had a very successful career as a surgeon in Belfast, and held appointments to the Royal Hospital in that city, and to the Ulster Hospital for Diseases of the Eye, Ear, and Throat, besides numerous minor honorary posts. His skill as an artist was widely recognised. He received good prices for his pictures, and was elected an honorary member of the Royal Hibernian Academy, and an associate of the Scotch Academy. He was also an ardent geologist and archaeologist. Sir Charles Bell bequeathed his case of surgical instruments to Dr. Moore as a recognition of his proficiency as a surgeon; Prof. Goodsir paid him a similar compliment in leaving him a silver case of instruments; and Dr. Thomas Reade, of Belfast, likewise left him his pocket surgical case, with the observation that he knew no man more competent to use it.

### PROFESSOR DEPAUL.

THE Paris Faculty has sustained some serious losses during the present year in the persons of Lasèque and Parrot, and now of Depaul. Born at Pau, in 1811, he repaired to Paris at the age of seventeen, and from that period until his death he pursued a course of laborious and profitable industry. In 1847 he became an *agrégé* of the Faculty, and in 1853 a hospital surgeon. Devoting himself to obstetrics and gynaecology, he was one of the favourite pupils of the celebrated Paul Dubois; and, as his *chef de clinique*, assistant, frequent substitute, and eventual successor in the Clinical Chair, he acquired an esteem for the great accoucheur which almost amounted to veneration. He became a member of the Academy of Medicine more than thirty years ago, officiated for many years as its Secretary, and in 1873 was elected President. In the numerous questions which came before the Academy, relating to his own branch of the profession, he took a prominent part, being an eloquent and convincing speaker. Moreover, he did good service in that body in his office of Director of the Vaccine Department, which is attached to the Academy; and the firm hold which the practice of vaccination has acquired in France is due in no slight degree to his exposition of its advantages. One of the founders, with Rayer, of the Biological Society, he also set on foot, in 1874, his *Archives de Tocologie*. The author of numerous and important contributions to journals, societies, and dictionaries, he has left little behind him in the way of substantive publications. One of these, however—his "*Traité Théorique et Pratique de l'Auscultation Obstétricale*," which appeared at a very early period of his career—was a most remarkable production at the time of its publication in 1847, and has not since been surpassed in exactness and usefulness, laying as it did this important application of auscultation on a secure foundation. Long ago he had



become the highest obstetrical authority in Paris, and had attained a very large and lucrative private practice. Methodical in his habits, the great amount of laborious work which he performed (having in late years entered even into municipal and political life), never prevented his strict fulfilment of every duty which he had undertaken. Whatever fatigue he had endured, he was always found at his clinic between seven and eight in the morning, and at his hospital, whether by day or by night, he executed all his operations himself. Possessed of herculean bodily strength, which allowed of his leading so laborious a life, his friends only perceived within the last twelve months that his health threatened to give way; and even now he was on the point of renewing his lectures, after a rest in his native department, when an attack of pneumonia carried him off.

## MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 1:—

Boobyer, Philip, Hillwood, Hendon, N.W.  
Taaffe, John Ferdinand Hugh, Broadstairs.  
Thornton, Francis Henry, Milton-road, South Hornsey, N.  
Waller, Charles Brooke, Ipswich.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 5th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Birt, J., student of St. George's Hospital.  
Bradshaw, T. R., Dublin, of St. George's Hospital.  
Coad, J. E., Newcastle, of St. George's Hospital.  
Counsell, R. W., Bristol, of St. George's Hospital.  
Hamilton, R. J., Liverpool, of St. George's Hospital.  
Jeeves, F., Sheffield, of St. George's Hospital.  
Kent, R. T., of Guy's Hospital.  
Mackay, W. B., of the Edinburgh School.  
Pearce, F., of Guy's Hospital.  
Poonen, E., Madras, of St. George's Hospital.  
St. Romaine, R. E., Calcutta, of St. George's Hospital.  
Sympson, E. M., of the Cambridge School.  
Traill, C. G., of the Edinburgh School.

Two candidates were referred for six months, and nine for three months. The following gentlemen passed on the 6th inst., viz.:—

Ayshford, G. R., student of the Edinburgh School  
Baumgartner, H. S., of the Newcastle School.  
Bewley, H. T., of the Dublin School.  
Carrol, J., of the Dublin School.  
England, G. F. A., of the University of Cambridge.  
Harvey, T. R. A., of University College Hospital.  
Hicks, E. H., of St. Mary's Hospital.  
Hubbard, J. P., of the Birmingham School.  
Mackay, N. E., of St. Thomas's Hospital.  
Pringle, J. H., of the Edinburgh School.  
Sankey, J. I., of the Middlesex Hospital.  
Scholes, T. E. S., of the Edinburgh School.  
Shackleton, H., of the Leeds School.  
Tatham, E. J., of the University of Cambridge.  
Tibb, W. S., of the University of Cambridge.  
Walker, E. H., of the University of Cambridge.

Seven candidates were referred for three months, and one for six months. The following passed on the 7th inst., viz.:—

Aitkin, W. B., student of the University of Glasgow.  
Brock, E. H., of Guy's Hospital.  
Brook, H. D., of St. Thomas's Hospital.  
Collins, F., of University College Hospital.  
Copeman, S. A. M., of the University of Cambridge.  
Dunn, P. H., of St. Bartholomew's Hospital.  
Emmett, R., of St. George's Hospital.  
Glinn, C. F., of St. George's Hospital.  
Horner, C. J., of St. Bartholomew's Hospital.  
Newbould, N. J., of St. Thomas's Hospital.  
Norman, F., of St. Bartholomew's Hospital.  
Powell, E. E., of St. George's Hospital.  
Rigge, J. A., of St. Bartholomew's Hospital.  
Sims, G. S., of St. Thomas's Hospital.  
Stockton, H. S., of the Charing-cross Hospital.  
Thomas, W. R., of the London Hospital.  
Tredennick, A. S., of St. Bartholomew's Hospital.  
Walker, T. G., of the London Hospital.

Six candidates were referred for three months.

## APPOINTMENTS.

BUCK, LEWIS A., M.R.C.S., L.S.A.—House-Surgeon to King's College Hospital.  
CHILDE, CHARLES P., M.R.C.S.—Assistant House-Surgeon to King's College Hospital.

DACRE, JOHN, M.R.C.S., L.R.C.P. Lond.—Assistant Medical Officer and Pathologist to the Bristol Royal Infirmary.  
DENT, HARRY L. R., M.R.C.S., L.S.A.—Physician-Accoucheur's Assistant to King's College Hospital.  
LILBURN, JAMES T., B.A., M.R.C.S., L.S.A.—Assistant House-Accoucheur to King's College Hospital.  
LYNAM, ROBERT G., M.R.C.S., L.S.A.—Physician's Assistant to King's College Hospital.  
RUSSELL, ROBERT H., M.R.C.S.—House-Surgeon to King's College Hospital.  
SHORT, THOMAS S., M.R.C.S., L.S.A.—Assistant House-Physician to King's College Hospital.

## DEATHS.

BELL, GEORGE COATES, M.D., of Dulwich, late Surgeon-Major Bombay Army, on October 28, aged 51.  
DEIGHTON, JOHN, M.R.C.S., J.P., at Hills-road, Cambridge, on Nov. 3.  
FRAMPTON, THOMAS, M.R.C.S., L.R.C.P., L.S.A., at 62, Gloucester-terrace, Hyde-park, on November 5, aged 66.  
HILBERS, GEORGE JAMES, M.D., at 8, Cavendish-place, Brighton, on October 30, aged 65.  
MACNAUGHT, JOHN, M.D., at 15, Warwick-gardens, Kensington, on November 3, aged 90.  
ORLEBAR, HOTHAM GEORGE, M.D., M.R.C.S., at 93, Elizabeth-street, Eaton-square, on November 1, aged 29.  
SCATLIFF, J. PARR, M.D., at Macaulay House, Clapham Common, on November 6, aged 64.  
SHUTER, JAMES, M.A., M.B., F.R.C.S., on November 1, aged 37.

## VACANCIES.

BASFORD UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. (For particulars see Advertisement.)  
GESTO HOSPITAL, EDINBURGH, SKYE.—Resident Medical Officer. Salary £275, with furnished house, fire and light, etc. Applications, with copies of testimonials, to be sent to J. MacLennan, solicitor, Portree, on or before December 1.  
GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—House-Surgeon. (For particulars see Advertisement.)  
HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Surgeon. (For particulars see Advertisement.)  
LONDON LOCK HOSPITAL AND ASYLUM, WESTBOURNE-GREEN, HARROW-ROAD, W.—House-Surgeon in the Female Department. Salary £100 per annum. Applications, with testimonials, to be sent to the Secretary by November 24.  
QUEEN'S HOSPITAL, BIRMINGHAM.—Honorary Physician. Candidates must be graduates in medicine of a University, and be Fellows or Members of the Royal College of Physicians of London, or Fellows of the King and Queen's College of Physicians, Ireland, or Fellows of the Royal College of Physicians, Edinburgh. The successful candidate is prohibited from engaging in the practice of midwifery, pharmacy, or surgery after his appointment. Applications, testimonials, and certificate of registration to be sent under cover to the Secretary (from whom all further information may be obtained) on or before Nov. 26.  
TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary £71 per annum, with board and lodging. Candidates must be registered as possessing both medical and surgical qualifications, and be unmarried. Testimonials of moral character and professional ability to be sent to the Secretary on or before November 20.  
WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer. (For particulars see Advertisement.)

**UNIVERSITY OF EDINBURGH.**—Prof. Fraser has appointed Mr. Atkinson, M.B. and C.M., and Mr. Stockman, M.B. and C.M., to be assistants in his department, in room of Dr. Hay, now Professor of Medical Jurisprudence in the University of Aberdeen.

**ARMY MEDICAL DEPARTMENT.**—Brigade-Surgeon O. Barnett, C.I.E., has been removed from Woolwich to Cork, in anticipation of his promotion to Deputy Surgeon-General, and charge of the Herbert Hospital at Shooter's-hill has been taken over by Surgeon-Major Mackey, A.M.D.

**ABERDEEN UNIVERSITY.**—Prof. Hay, who was recently appointed to the Chair of Medical Jurisprudence in Aberdeen University, rendered vacant by the retirement of Prof. Ogston, was introduced to his class on the 29th ult. by Principal Pirie, and delivered his first lecture on "Toxicology."

**DEATH FROM CHLOROFORM.**—A death from chloroform has occurred at the Seamen's Hospital. The patient had on two previous occasions been operated on under ether, but he had suffered so much from the effects of that anæsthetic that chloroform was administered instead. He died from syncope before the operation was begun.

**SANITARY INSTITUTE OF GREAT BRITAIN.**—At an examination of local surveyors and inspectors of nuisances, held on the 1st and 2nd inst., ten candidates presented themselves. The Institute's certificate of competency to discharge the duties of local surveyor was awarded to one candidate, and the certificate of competency to discharge the duties of inspectors of nuisances to five candidates.



At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·05 in. ; the highest reading was 30·27 in. at noon on Tuesday, and the lowest 29·85 in. on Saturday morning.



## NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—Bacon.

## THE ROGERS TESTIMONIAL.

The following additional subscriptions have been received:—C. H. Cornish, Esq., F.R.C.S., Taunton, £1 1s.; Dr. F. de Havilland Hall, 46, Queen Anne-street, £1 1s.; J. F. Churchill, Esq., Chesham, Bucks, £1 1s.; J. A. Shaw Stewart, Esq., 71, Eaton-place (per E. Hart, Esq.), £5; Dr. Samuel Benton, 2, Bennett-street, St. James's (per E. Hart, Esq.), £1 1s.; W. H. Michael, Esq., 54, Cornwall-gardens, £2 2s.; J. Raglan Thomas, Esq., Llanely, £1 1s.; Dr. Burchell, 2, Kingsland-road, £1 1s.; H. Roberts, Esq., Wickham-terrace, Lewisham, £1 1s.; Dr. Fegan, West-combe Park, Blackheath, £1 1s.; Dr. Gayton, Small-pox Hospital, Homerton, £1 1s.; Dr. R. Fowler, Old Burlington-street, £1 1s.; Dr. Cogswell, 41, York-terrace, Regent's-park, £5; Dr. Rayner, Middlesex Asylum, Hanwell, £1 1s.

## THE HIND FUND.

A general meeting of the subscribers will take place on Thursday, November 15, at the Briton Life Offices, at 5.30 p.m.

The following additional subscriptions have been received and paid to the account of the Hind Fund at Messrs. Coutts' Bank:—Dr. C. J. Hare, £10 10s.; G. Richmond, Esq., £7; J. Prince, Esq., £5 5s.; Dr. J. Hall Davis, £5; F. D. Mocatta, Esq. (per Dr. Archdeacon Duncan), £5; T. W. Carmalt Jones, Esq., £2s 3s.; Three Friends at the Turkish Baths, £3 3s.; Dr. B. W. Richardson, £2 2s.; Dr. C. H. F. Routh, £2 2s.; J. H. Callender, Esq., £2 2s.; A. H. Boys, Esq., £2 2s.; Dr. W. B. Dalby, £2 2s.; F. Le Gros Clark, Esq., £2 2s.; Major-General F. W. A. Robson, £2; Dr. Paul, £1 1s.; G. Bishop, Esq., £1 1s.; H. Taylor, Esq., £1 1s.; Malcolm Morris, Esq., £1 1s.; R. W. Dunn, Esq., £1 1s.; Lennox Browne, Esq., £1 1s.; E. Bowen, Esq., £1 1s.; Dr. Wraith, £1 1s.; E. Skinner, Esq., £1 1s.; C. D. Waite, Esq., £1 1s.; Dr. Martindale C. Ward, £1 1s.; Dr. F. J. Corbould, £1 1s.; Samuel Burrows, Esq., £1 1s.; Dr. C. H. Browne, £1 1s.; "Not Unmindful," £1 1s.; W. Davies, Esq., £1 1s.; W. F. Forsyth, Esq., £1 1s.; Dr. McOscar, £1 1s.; Dr. Penhall, £1 1s.; Prof. R. Owen, £1 1s.; Sir W. Mac Cormac, £1 1s.; Anatomist, £1 1s.; Pupil (H.), £1 1s.; W. B. Dalby, Esq., £1; G., £1; Edward East, Esq., 10s. 6d.; W. Druitt, Esq., 10s. 6d.; W. R. Dambrell-Davies, Esq., 10s. 6d.; X. Y. Z., 10s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

*Eastern Counties Idiot Asylum, Colchester.*—Additions are about to be made to this institution, at an estimated cost of £5900.

*Radcliffe Infirmary, Oxford.*—The Earl of Jersey has been appointed president, vacant by the death of the Duke of Marlborough.

*Derby Infirmary.*—The Committee announce that the Saturday collections of the working men have this year amounted to upwards of £1000.

*London Water-Supply.*—The Metropolitan Board of Works have resolved to introduce a Bill into Parliament next session in respect to the metropolitan water-supply.

A. A.—The St. George's (East) Board of Guardians have decided that the vacant office of Medical Superintendent of the Infirmary, *vice* Dr. Cooper, who has resigned, shall be open only to married men; that the age shall be optional; and the salary £300 a year, with residence, coals, and gas.

*Unhealthy Dwellings, St. Pancras.*—Dr. Shirley Murphy, Medical Officer of Health, reports that, after inspection, he found forty-three houses dangerous to health and unfit for habitation. The Vestry has referred the subject to the chief surveyor.

*Death from Snake-Bites.*—From an official paper on the number of deaths from wild animals in the Madras Presidency, it appears they far exceed that of the previous year. The number from snake-bites alone is given as amounting to 920, though there is little doubt but that the deaths from this source are in reality far more numerous.

*The Fisheries Exhibition.*—It has been reported that this Exhibition, with its annexes, etc., was undrained, and that several of the Executive had been ill. The buildings, it is further stated, are to be properly drained, and got ready for the Food Exhibition to be held next year. It seems incredible that necessary sanitary arrangements should have been neglected.

"*Psoadicus, psoadic.*"—Dr. Robert Fowler writes:—"Dr. John Sykes, who, in your issue of 20th ult., seeks information about this word, or these words, will find them respectively either in "Mayne's Expository Lexicon of Scientific Terms," or in Fowler's "Medical Vocabulary," second edition. The word is derived from *ψόα* or *ψύα*, pl. *ψόαι* or *ψύαι*, the muscles of the loins (Liddell and Scott), and signifies "of, or belonging to the loins, or the psoas muscles." Both *ψόα* and *ψύαι* are used by Hippocrates.

*Fever in Dundee.*—The last reports of the Medical Officer and the Sanitary Inspector showed that there was a necessity for extensive alterations and improvements of several milk-shops and dairies, also that the measures adopted had largely succeeded in checking the fever epidemic, as the number of cases was decreasing, and very few new outbreaks were being reported. The present epidemic is a favourable opportunity for the authorities to consider the question of a new fever hospital. The accommodation for isolating epidemic disease in the city has been severely felt—a deficiency which should unhesitatingly be provided for.

*T. W. G., St. Thomas's Hospital.*—The unfortunate gentleman, Herbert Percy Freund, who has been so frequently charged at the Mansion House with "brawling" in St. Paul's Cathedral, and at last consigned by the Lord Mayor to the City Lunatic Asylum, is a son of the late Dr. Freund, the founder of, and for many years Physician to, the German Hospital.

*Mortality, Antigua.*—A correspondent writing from Antigua on the 11th ult., states:—"During the hot season the coloured population appears to have been literally decimated. Making allowances for the more healthy part of the landward district of St. John's Parish (the statistics being made up in parishes), competent observers have come to the conclusion that the mortality of the town of St. John's is about 65 per 1000. The explanation generally given is, that it is infant mortality, caused by the blacks neglecting their offspring. The negroes there are not a stalwart race, and are underfed and puny. The women evidently starve their stomachs for the sake of dress (in town) on Sundays."

*Primary Examinations.*—The following were the questions on Anatomy and Physiology submitted to the candidates for the diploma of Member of the Royal College of Surgeons at a meeting of the Board of Examiners on the 2nd inst., when they were required to answer four out of the six questions, both in Anatomy and Physiology, viz.:—Anatomy (from one to three o'clock): 1. Describe the origin and insertion of the muscles of the orbit, and give their nervous supply. 2. Describe the sacrum. How would you distinguish between the male and female bone? 3. Describe the dissection required to expose the infra-spinatus muscle. Give its attachments, its blood and nerve-supply. 4. How would the collateral circulation be carried on after ligature of the third portion of the sub-clavian artery? 5. Describe the interior of the larynx. 6. Give the dissection required to expose the profunda-femoris artery.—Physiology (from four to six o'clock): 1. Name the morphological and chemical constituents of the blood. What are the uses of these constituents? 2. What are the changes which the food undergoes in the mouth? 3. What is the structure of a medium-sized artery and vein? In what way are the arteries and veins concerned in the circulation of the blood? 4. Describe the movements of respiration, and explain the manner in which the air in the pulmonary alveoli is renewed. 5. What are the chief ferments in the body? By what circumstances are their actions facilitated or retarded? 6. Describe the structure of the iris. By what nerves are its movements incited? Mention the chief circumstances which induce enlargement and contraction of the pupil. (The list of successful candidates will be found on another page.)

## COMMUNICATIONS have been received from—

Dr. JULIUS ALTHAUS, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. BACOT, Seaton; Mr. T. H. WILLIAMS, Denbigh; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Dr. ROBERT FOWLER, London; Dr. THEODOR PUSCHMANN, Vienna; Mr. H. COOK, London; Dr. WYNTER BLYTH, London; THE DEAN OF THE MEDICAL FACULTY OF THE UNIVERSITY OF EDINBURGH; Mr. R. BRAYN, Woking; Dr. CRICHTON BROWNE, London; Mr. H. D. COLE, Southampton; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; Mr. T. M. STONE, Wimbledon; THE SECRETARY OF THE CHURCH OF ENGLAND TEMPERANCE SOCIETY, London; Dr. PROTHEROE SMITH, London; THE SECRETARY OF THE PARKES MUSEUM OF HYGIENE, London; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON.

## BOOKS, ETC., RECEIVED—

The Patents, Designs, and Trades Marks Act, 1883, by James Johnson and J. H. Johnson—Charles Pelham Villiers and the Repeal of the Corn Laws—An Ethical Symposium, by A. C. Post, etc.—A Summary of the New Patent Act, 1883, by W. Lloyd Wise—Report on the Health of the Borough of Birmingham for the Quarter ending September 29, 1883—Army Medical Department Report for the Year 1881—Die Medicin in Wien, von Theodor Puschmann—Legal Medicine, part ii., by Charles Meymott Tidy, M.B., F.C.S.—Report on the Sanitary Condition, etc., of the Parish of St. Matthew, Bethnal Green, for the Year 1882—The Operative Treatment of Intra-Thoracic Effusion, by Norman Porritt, L.R.C.P., M.R.C.S.—Transactions of the American Otological Society—Good Remedies out of Fashion, by C. J. Hare, M.D., etc.—Report on the Health of Bolton for 1882—Luther Commemoration for Great Britain and Ireland—On Imperfect Local Self-Government, and its Results in Manchester, by Edwin Chadwick, Esq., C.B.—Practical Pathology, by G. Sims Woodhead, M.D., F.R.C.P.—The Sanitary Chronicles of the Parish of St. Marylebone, August and September—A Handbook of Hygiene, etc., by George Wilson, M.A., M.D., F.R.S.E.—Diseases of the Brain and Spinal Cord, by David Drummond, M.A., M.D.—Woman as a Physician, by Eugene F. Cordell, M.D.—The Life and Work of St. Paul, by F. W. Farrer, D.D.—Half-Yearly Report, etc., of the Port of London Sanitary Committee.

## PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Edinburgh Medical Journal—Monthly Homœopathic Review—Glasgow Medical Journal—L'Impartialité Médicale—Fireside News—Revue Mensuelle de Laryngologie, d'Otologie, etc.—Boy's Own Paper—Girl's Own Paper—Sunday at Home—Friendly Greetings—Leisure Hour—Ophthalmic Review—American Journal of the Medical Sciences—Brain.





## LECTURES ON INSANITY.

*Delivered at the Westminster Hospital, June, 1883.*

By HENRY SUTHERLAND, M.D.,

Physician to Otto House and Blacklands House Lunatic Asylums, etc.

## LECTURE II.

## SIMPLE INSANITY AND ITS SUBDIVISIONS.

## PREMONITORY SYMPTOMS.

THE premonitory symptoms of insanity are so insidious in their approach that it is impossible for even a skilled observer to detect them, unless he may remember the same to have previously occurred before an attack in the same patient. Two instances have lately come under my notice, in which extraordinary acts were committed ten years before the symptoms were sufficiently developed to be brought under medical observation. On both occasions these symptoms passed off, and the patient remained well mentally till a few weeks before the outbreak. One of these was a case of mania occurring regularly every spring; the other was a case of general paralysis.

These premonitory symptoms are too numerous to be described at length, but we may mention three which appear to be common to every form of mental disorder. They are—

1. Headache.
2. Loss of sleep; and
3. Alteration of character.

1. Headache is due to various causes. It may be anæmic, the result of a deficiency of blood in the brain. It may be hyperæmic, caused by too great fulness of the cerebral vessels. And it may also depend upon an irregularity of the blood-supply to the brain. The blood may also be poisoned by alcohol, by bile, or other morbid fluids. It may be, and often is, due to the influence of several causes combined. To treat this symptom successfully a careful inquiry must be made into the physical condition and previous habits of the patient. For at this stage the exhibition of appropriate drugs may actually avert an attack of insanity. And if that is beyond our skill, we may certainly make the expected attack far less violent, far shorter in duration, and consequently far less expensive to the patient's friends.

2. Loss of sleep is a very frequent symptom in the early stages of insanity. Like headache, it is frequently due to some disordered condition of the blood, as well as to the mental anxiety which often harasses the patient at this period. Volumes might be written upon this one point alone, but we shall here only allude to the remarks of Dr. Mortimer Granville: that healthy sleep is an aggregation of several sleeps—sleep of the muscles, sleep of the brain, sleep of the digestive and sexual organs, sleep of the special senses. If one of these items is wanting, sleeplessness or unhealthy sleep is the result. The mere mention of these points suggests an endless variety of treatment, for which we must refer you to Dr. Granville's able works.

3. But it is in alteration of character that we have the most marked outward and visible signs of an approaching attack of insanity.

Forgetfulness in the punctual man, irritability in the kind-hearted, extravagance in the thrifty, drunkenness in the sober, sexual excesses in those who have been remarkable for the virtuous aspect of their lives (these two last-mentioned being often supposed to be the causes, when they are really only premonitory symptoms); these and similar contradictory signs are those which first sound the note of alarm, and which, in those who have had a previous attack, indicate that undoubtedly a second one may be shortly expected.

*Delusion.*—Passing over the various premonitory symptoms, all of which have caused more or less anxiety to the patient's friends, let us now suppose that he has crossed the line which separates sanity from insanity, and that he has become, legally speaking, a lunatic, that he is the victim of one or more delusions.

Quoting Dr. Blandford's work from memory, we may say  
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that the insane may believe in what is false in three different ways, namely, by being under a

Delusion,  
Illusion, or  
Hallucination.

A short explanation of these terms may, perhaps, be here appropriate:

A Delusion is of the Mind.

An Illusion is of the Senses.

An Hallucination is also of the Senses.

The following definitions are slightly altered from Dr. Blandford's valuable book:

A Delusion is an erroneous, persistent, and absurd belief in some fact which does not exist, and which usually relates to the patient himself. Example: He is under the delusion that his nose is too big to pass through the doorway.

An Illusion is an erroneous perception by some one of the senses of something which has no existence, but which there are some grounds for believing does exist. Example: He is under the Illusion that voices are whispering into his ear, but in reality it is only the wind whistling in the chimney.

An Hallucination is an erroneous perception by some one of the senses of something which has no existence, and which there are no grounds for believing to exist. Example: He hears voices talking to him at night, when in reality there is no sound of any kind to be heard.

## SYMPTOMS OF INSANITY.

I shall now endeavour to bring before you some of the most common forms and symptoms of insanity; but to make a selection, and especially a short selection, from the experience of some hundreds of cases, is a task of no small difficulty. "Where is the man," says Esquirol, "who would dare to flatter himself that he had observed, and could describe, all the symptoms of mania, even in a single case? The maniac is a Proteus, who, assuming all forms, escapes the observation of the most practised and watchful eye."

After such a statement as that from the *Æsculapius* of Psychology, I can do no more than describe, as briefly as possible, a few cases from my own practice, illustrating the varieties of insanity enumerated in the Nomenclature of the College of Physicians. I shall also give some hints for treatment, although these must naturally vary in every case.

## I.—Mania.

This may be Acute, Acute Delirious, Chronic, or Recurrent. Acute is generally curable, Chronic frequently incurable. The term "Recurrent" is somewhat vague, as it may be applied to a patient, who is a permanent resident in an asylum, who has occasional attacks of violence, being quiet in the intervals; or to one who leaves the asylum, and returns again the victim of another attack. If the patient is discharged "recovered" from a first attack, and again admitted, it ought to be called a second attack. If he is discharged "relieved," or "not improved," and is again admitted, then the case should be classed as one of Recurrent Mania.

Here is a case of Chronic Mania. A lady of good education, aged fifty, very handsome, the wife of a medical man. At times she recovers, and goes into society. Here she picks up all the scandal she can hear against the officials of the asylum. When she returns with another attack, she bawls out the most private matters about the said officials to the other patients and attendants. She tears up the flooring of her room, blacks the eyes of all the attendants, uses foul and blasphemous language, runs barefooted over the flower-beds, wears her watch in her hat, passes faces and urine in her room, and makes herself generally disagreeable. Sedatives have little or no effect upon her, antimony in large doses being the only drug that is of any use.

The best sedatives in Mania are bromide of potassium, chloral, bimeconate of morphia, and tartrate of antimony. The bromide can be given in beef-tea, chloral in port wine or beer, morphia in coffee, and antimony is tasteless in any liquid.

I find disguising drugs is a much pleasanter mode of administration than subcutaneous injection, which often causes a feeling of enmity between the doctor and his patient, and should only be resorted to where medicine is refused. In Acute Mania, food and stimulants must be given at frequent intervals if the case is of the asthenic type. The



patient should also be kept lying down as much as possible. As a rule, the milder purgatives are indicated in insanity, such as citrate of magnesia, syrup of senna, Hunyadi János and Æsculap waters, and rhubarb pills for trustworthy patients. A powerful purge is often, however, of great value as a sedative measure.

## II.—*Melancholia.*

A gentleman under my care has Chronic Melancholia. He has the delusions that he is suffering from hydrophobia, and, in consequence, he constantly barks; that he has been changed at birth with an attendant of the asylum; that if another patient puts his leg up it causes him (the melancholiac) pain in the liver. He stands still all day, but will walk if led by an attendant. He is not suicidal, this being the chief characteristic of melancholia. He also takes food well, which is not common in this disease. Opium and morphia are peculiarly indicated in melancholia. If the symptoms are not allayed by a soporific dose, the drugs may be given during the day with the object of stupefying the patient and making him forget his woes. Ether or bark may be added to the tincture of opium or liquor morphiæ bimeconatis. There is a peculiar form of this disorder known as Melancholia Attonita. The diagnosis between this and Acute Dementia is sometimes very difficult. There are some cases which might be classed under either head. Melancholia may be subdivided into Acute, Chronic, and Recurrent. The great point to remember about the disease is that most melancholiacs have suicidal tendencies, against which we must take proper precautions.

## III.—*Dementia.*

Dementia may be Acute, Chronic, Recurrent, Senile, or Organic.

Acute Dementia is a very peculiar disease, in that, although it is called "acute," yet there are no febrile symptoms. A short table of the distinctions between it and Melancholia Attonita may here be given.

<i>Acute Dementia.</i>	<i>Melancholia Attonita.</i>
Cause none or ill-defined.	Cause defined.
In comparatively young people.	In older people.
Not suicidal.	Suicidal.
Do not refuse food as a rule.	Often refuse food.
Sleep fairly well.	Sleep very badly.
Attack commences with excitement.	Attack commences with depression.
Motionless or only automatic movements.	Frequently much motion, wringing of hands, etc.
Expression idiotic.	Expression of some fixed emotion.
Hands and feet blue with cold.	Hands hot, clammy, or dry.
Chilblains in the summer.	No chilblains.
Wet and dirty.	Not wet and dirty.
Fæces accumulate.	Bowels confined, but not so obstinate.
Transitory attacks of excitement.	None.
Lethargy and anæsthesia.	Morbid excitability.
Occasional vomiting.	Vomiting rare.

Acute Dementia is also called Primary Dementia, as opposed to Chronic Dementia, which often succeeds some other form of mental disorder.

Dementia may be also recurrent, or may alternate with conditions of Mania and Melancholia.

Senile Dementia is a condition produced by the natural decay of the brain from old age. It is not a form of insanity likely to affect the patient's children, as its existence is only another kind of "breaking up" of the organism, which might possibly have made its appearance as disease of the lungs, heart, or kidney. Such cases are important medicolegally, as it is at this period of second childhood that designing women often succeed in inducing old men to marry them, or to leave them property to the exclusion of deserving relatives.

*Case of Chronic Dementia.*—A gentleman under my care sits in a chair all day with his legs crossed. One hand is employed in rubbing the knee of his trousers, which he speedily wears out; the other holds an ivory paper-knife, which he perpetually turns round and round. He never

speaks. He is dressed, undressed, and washed, but can feed himself. He walks out daily. There is no loss of power. He is in good health.

## IV.—*Monomania.*

According to Esquirol, this is a condition of mental exaltation, in which the patient is always happy. Under this head come the insane kings and queens, the "show cases" of asylums. Their delusions are incompatible with their actions. At Brookwood there is a male patient who fancies he is the Duke of Gloucester, and is permitted to wear Court dress in the evening on festive occasions. Nevertheless, he is not above scrubbing the pots and pans in the scullery during the day.

A lady under my care writes letters to all the crowned heads of Europe, directing all the political and military matters of the different countries. She is never surprised that she receives no response, but goes on writing perpetually all the same. This she has done for many years. The exalted delusions of Monomania differ from those of General Paralysis in that they are generally few in number, and stationary, whereas those of General Paralysis are varied and cumulative. Such patients are usually in good health, but their mental condition is incurable.

## V.—*Puerperal Insanity.*

Puerperal Insanity is of three kinds—of Pregnancy, of Parturition, and of Lactation. Half the cases are due to hereditary taint. Esquirol believes that half are also caused by the birth of illegitimate children. It generally occurs in primiparæ, between the ages of twenty and thirty. Mental anxiety, physical causes, especially blood-poisoning, hæmorrhage, and "milk" fever also act as accessory causes.

*A. Insanity of Pregnancy.*—Out of 155 cases of Puerperal Insanity, 28 were those connected with pregnancy (Batty Tuke). The form of mental disease in such cases is suicidal melancholia. The prognosis is favourable. Dr. Blandford does not think the induction of premature labour justifiable as a preventive measure.

*B. Insanity of Parturition.*—The form in Insanity of Parturition is usually Mania, although Melancholia and Dementia are occasionally met with. Of 57 cases under the care of Sir George Burrows, 33 were Maniacs, 16 Melancholiacs, and 8 had Mania and Melancholia alternately. Esquirol affirms that 40 per cent. of these cases occur within the first fortnight.

*Premonitory Symptoms:* Restlessness; diminution or suppression of the milk and lochia; tongue white; bowels loaded; urine scanty; pulse rapid, generally about 100 (if over 100 the prognosis is unfavourable, if as high as 120 the disorder is almost surely fatal).

There is incessant talking, with occasional violence, aversion to the husband and child, angry gesticulation, and very obscene language. Brierre de Boismont has remarked that prostitutes who are attacked by Puerperal Insanity rave about riches and ambition, and do not, as a rule, use bad language. The special senses become very acute, there is suicidal tendency, giddiness, headache, and dilatation of the pupils.

In the depressed form there is often sullen silence, and in the demented form confusion of thought, and loss of memory.

*C. Insanity of Lactation.*—Out of 54 cases of this kind, 39 were Melancholiacs, 10 Maniacs, and 5 Dements (Batty Tuke). It is due to nervous exhaustion from over-suckling, and consequent supply of deteriorated blood to the nerve-centres. The Mania of this form is severe, but evanescent; it usually lasts about ten days. It is sometimes produced by sudden weaning. Dr. Blandford has noticed exophthalmia and *bruit de diable* in this form.

The prognosis is usually good in Puerperal Insanity of all kinds. Out of ninety-two cases of Esquirol's, six only died. It is, however, always fatal if complicated with Bright's disease (Pcdler). Dr. Webster has stated that three out of five recover within the year. The outlook is favourable if the lochia and milk return; and, later on, the accession of the catamenia is a good omen.

The Insanity of Pregnancy and Lactation—both conditions of asthenia—is therefore usually Melancholia. The Insanity of Parturition—a condition of more or less physical and mental excitement—is Mania.

The treatment consists chiefly of a judicious selection of



nourishment, stimulants, and sedatives. A good purge or an injection should be given at once. A mixture of bromide of potassium and tr. ferri perchloridi is very appropriate in many cases. The secretion of milk should be encouraged by applying the child to the breast, or by the use of the breast-pump; and of the lochia, by warm baths, poultices, spongipiline soaked in hot water and placed over the vulva, and stimulating enemata. Opium and morphia are, as a rule, contra-indicated, and should only be given if chloral and bromide fail to act. The room should be kept dark and quiet, and all unnecessary visitors should be excluded. *Succus conii* is useful in cases accompanied by great mobility, and tr. belladonnæ is sometimes appropriate in hysterical cases. A blister to the nape of the neck is sometimes useful to wake a patient up in a protracted case of Puerperal Dementia. Strong soups, beef-tea, eggs, milk, and wine may be given; but brandy should be avoided unless the pulse be over 100, in which case it may be administered freely.

The patient should avoid mental anxiety and violent exercise during pregnancy, and should endeavour to improve her bodily health in anticipation of the important event.

In treating a case of Puerperal Insanity, you must be polite but firm in your manner to the patient; you must show her that you are the master, and that you intend to have your instructions carried out. You will often find that the friends who appear to be most distressed about the patient's condition are the very people whose unkindness has caused her insanity. All such persons must be rigidly excluded from the sick-room if you wish your treatment to be of any avail in this interesting and usually hopeful class of cases.

### HODGE'S PESSARY AND ITS MODIFICATIONS.(a)

By G. ERNEST HERMAN, M.B. Lond., M.R.C.P. Lond.,  
F.R.C.S. Eng.,

Obstetric Physician to, and Lecturer on Midwifery at, the London Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery to the Royal College of Surgeons of England, etc.

ALL who have paid attention to the diseases peculiar to women are agreed that Hodge's pessary is a very useful instrument. It has therefore been extensively used and much modified. It is indeed itself a modification of an older pessary. Dr. Hodge began with the simple ring, and his efforts to improve upon this resulted in the pessary with which his name is connected. I propose to ask your attention to this instrument—what it does, and how it does it; and to the advantages and disadvantages of some common variations in its construction and shape.

Hodge's pessary is essentially this: *a rigid frame which prevents inversion of the vagina*. This effect is the only one it invariably produces. The great merit of Hodge's invention appears to me this: that he discovered the shape of pessary which, without exerting undue pressure at any point, keeps the walls of the vagina extended to a greater degree than any other. There is abundant evidence to show that imperfection of the vagina is not by itself enough to produce displacement of the uterus. But it is also the fact that no displacement of the uterus, except flexion, can occur without some change in the shape of the vagina. Consequently, if we can prevent change in the shape of the vagina, we can greatly limit displacement of the uterus.

In a discussion reported in vol. xxii. of the *Transactions of the Obstetrical Society of London*, Dr. Graily Hewitt made the following remarks:—"His own experience was that descent of the uterus was almost universally present in cases of flexion—it formed an almost essential part of the disorder."(b) My opinion, if I may presume to add it to that of Dr. Hewitt, is quite in accord with his as to the almost constant association of descent of the uterus with flexion in the cases in which the displacement gives rise to symptoms. I follow him in believing that in such cases descent is "an essential part of the disorder." But I would

go further, and say that it is the only essential part, and that, as a rule, whether the uterus is bent or not is unimportant. I would also venture to differ from Dr. Hewitt as to the universality of the association of flexion with descent, although accepting his teaching as to the importance of the latter. His conclusions seem to me erroneous, because the data on which they are based are one-sided, consisting only of observations of cases in which flexion was associated with symptoms, and, unfortunately, not also including an investigation into the frequency with which flexion of the uterus occurs in health. Vedeler, who has studied the latter problem upon a larger scale than anyone else, found that in 1504 women free from every kind of uterine symptom, flexion of the uterus, either forward or backward, was present in 977, or 64.3 per cent. These figures include antelexion, which, as I think, is not a morbid condition, but one of the natural shapes which the uterus may have. From the evidence afforded by these and similar figures, as well as from observations of my own, (c) I believe that flexion of the uterus often is present without any descent, and therefore without any symptoms.

Putting aside, however, this controverted question, it may be pointed out that retroversion of the uterus cannot occur without displacement forwards of the upper end of the vagina. When simple prolapse of the uterus takes place, the vagina becomes inverted, its upper part (with the uterus) sinks into the lower, and this inversion increases with the degree of the prolapsus until the vagina becomes turned inside out. If we prevent this inversion of the vagina from taking place, we prevent the uterus from coming down; and if we hinder the upper end of the vagina from moving forwards, we hinder also the cervix uteri from doing so, and thus prevent retroversion. This is the function of Hodge's pessary: to prevent inversion of the vagina, and to prevent the upper end of the vagina from moving forwards. It does this by filling that canal with a relatively rigid frame. This effect a properly fitting Hodge always produces; its effect upon the shape and position of the uterus is not always the same, and is in many cases unimportant.

But the usefulness of Hodge's pessary is not confined to cases of simple prolapse or of retroversion. Retroversion is often combined with retroflexion. In many such cases we are able, by the use of this instrument, to place and keep the uterus in a position of anteversion; and when this is done, the intra-abdominal pressure (which, when the uterus was retroverted, acted on its anterior surface, forced the fundus lower down, and so produced bending of the organ) acts on the posterior surface of the uterus, and opposes the continuance of the flexion. In this way Hodge's pessary will often remove retroflexion.

But this effect upon retroflexion is not invariable. If the uterine tissue be very soft, so as to bend very easily, then the effect of the pessary, in pushing the posterior vaginal *cul-de-sac* upwards and backwards, may only be to pull the cervix upwards and backwards without altering the position of the body. If this be the effect, the cervix will be drawn closer to the body, the bend will be made sharper, and the end of the pessary will enter the angle on the concavity of the flexed uterus.

There are also cases of retroversion in which Hodge's pessary fails to antevert the uterus. In some women the uterus is found lying in, or nearly in, the axis of the pelvic outlet, its position appearing to be due to, or at least associated with, unusual shortness of the vagina. In such cases the instrument will somewhat raise the posterior *cul-de-sac*, but will not antevert the uterus. Its posterior end will press on the upper part of the cervix uteri, sometimes even on the lower part of the body, slightly raising the uterus, but not otherwise altering its position.

The pessary under consideration was called by Dr. Hodge a "lever" pessary. The only lever action that I believe it exerts is that pointed out by Schultze, and to which attention has been drawn in this country by Dr. John Williams.(d) The uterus itself is the lever, the body of it is the weight, the fulcrum is the attachment of the uterus near the internal os, and the power is applied through the vagina to the cervix. It has been said to act as a lever in another way—viz., that the pessary is the lever, "the fulcrum a transverse axis, nearly through its centre, upon which it is

(a) Read before the East London and South Essex district of the Metropolitan Counties branch of the British Medical Association.

(b) Page 210.

(c) *Obstetrical Transactions*, vol. xxiii.

(d) *Ibid.*, vol. xviii.



capable of oscillating as it is grasped by the vaginal walls; the power is the pressure of the anterior vaginal wall upon its anterior limb, greatly increased during expulsive efforts; the weight, or resistance, is the fundus uteri, which is pushed up by the posterior limb." (e) Another writer says, still more definitely, "the lower limb of the instrument being carried down as the anterior vaginal wall descends during the act of inspiration, the upper limb ascends in the posterior *cul-de-sac*, raising the fundus uteri and also pushing it forwards." (f) This kind of lever action I have not succeeded in observing. Usually I have found that during expulsive efforts the pessary descends with the vagina without any other appreciable alteration in its position. But often the anterior end descends more than the posterior, and sometimes the instrument, besides descending, does alter its inclination, the lower end moving slightly backwards, and the upper end slightly forwards; but this change in the position of the pessary is accompanied with descent, and does not, so far as my observations go, at all tend to press up the body of the uterus. Hodge's own account of it is the following: The instrument "operates as a lever in elevating the fundus from its malposition against the sacrum to its normal position behind the bladder; that portion of the pessary which is posterior to the neck of the organ being the 'short arm,' while all anterior to the neck is the 'long arm'; and the 'fulcrum' or support is the posterior surface of the vagina. As the long arm or horn is depressed by the finger of the practitioner, the short arm rises and carries with it the body and fundus of the uterus." (g) I have no doubt that Dr. Hodge in this passage describes correctly the change in the position of the pessary which followed the manipulation mentioned; but before accepting it as representative of the effect of expulsive abdominal effort, we need be certain that the pressure of the finger was applied in exactly the same direction as that communicated by the anterior vaginal wall during effort.

Whatever view be taken of the lever action of the instrument, it is certain that it cannot by direct pressure upon the body push a retroverted or a retroflexed uterus into the axis of the pelvic inlet. It can only do this by the mechanism described by Schultze. When the pessary does press upon the body of the uterus, the displacement is not completely removed. The effect of such pressure upon the patient's condition depends upon the state of the uterus. If the uterus be congested, and therefore tender, the pressure of a pessary upon it will generally make the patient's suffering worse. If it be not tender, then it is unimportant whether the instrument presses upon the uterus or not. Although Dr. Hodge did not describe the mechanical action of his pessary in the same way as Schultze has done, he was quite aware that it ought not to press directly upon the uterus; and that if it presses upon a tender uterus it does harm. In the quotation just given, the expression he uses is that the pessary "carries with it" the uterus. In describing the adjustment of the instrument, he says, "care must be taken that it does not press against the uterus behind." (h) At another place he says, "in retroversion it may turn up against the body of the uterus too suddenly; indeed, will generally do so, to the discouragement of all, if care be not taken to elongate the vagina and press the instrument steadily between the uterus and rectum, so as not to impinge anteriorly against the uterus." (i)

(To be continued.)

## REMARKS ON THE PROPOSALS FOR AMENDMENT OF THE LAW OF CORONERS' INQUESTS.

By E. L. HUSSEY,  
Coroner of the City of Oxford.

MANY suggestions have been made for amending the law of coroners' inquests—not the only part of the judicial system in need of amendment, may be said, after the Mackonochie case, the Tichborne case, and the Belt libel case, . . . to say nothing of the proceedings, or want of proceeding, at the fountain-head.

(e) Galabin, "Diseases of Women," first edition, page 68.

(f) Edis, "Diseases of Women," first edition, page 90.

(g) "Diseases Peculiar to Women," second edition, 1868, page 417.

(h) *Op. cit.*, page 422.

(i) *Op. cit.*, page 429.

Among the changes proposed, one is, that the inquisition *super visum corporis* shall be abolished, and that, instead of it, an inquiry into the cause of death, without a view of the body, shall be held by a justice of the peace.

It has been proposed that the view of the body shall not be a necessary part of the proceedings before the coroner, or that the view shall be taken only at the discretion of the coroner, or at the expressed wish of the jury; that the number of the jurors shall be less than is now required, and that the jury shall be taken from the jurors' book in a county, and from the burgess-roll in a borough; that the power of the jury to put questions to the witnesses shall be abolished, and that no testimony but what is legal evidence shall be admitted during the inquiry; that no accused person shall be tried upon an inquisition found against him; that a qualification or evidence of professional fitness shall be required of all coroners; and that they shall not be elected by the freeholders in a county, nor by the town council in a borough.

We have not been told that the justices of the peace, generally, are willing to undertake the duty of making the inquiry, or that the friends of a deceased person will find the attendance at a police-court or at petty sessions less unpleasant than at an inquiry before a coroner. The attendance, it can hardly be doubted, will be more burdensome to the family of the deceased, the time given to the proceedings will in most cases be longer, and the costs of the inquiry will be greater.

It would be but a slight alteration of the present mode of procedure if the coroner—who is already a conservator of the peace—should be declared to have the powers of a justice of the peace, for the purposes of the inquiry. The view, it must be borne in mind, is for the discovery and for the identity of the body. This ought to be the duty of a recognised officer. The coroner is the officer to whom the duty is committed; the jury are the witnesses of the judicial act, and neither they nor the coroner can be excused from the proper and orderly performance of the duty. It is not thought necessary that all the jurors should join in the view; but the body is present, and without it the inquiry, as a judicial proceeding, becomes worthless. In cases of suspicion, unless the cause of death is found by judicial inquiry, a man ought not to be put on his trial for homicide; nor, if correct registration of the causes of death is desirable, ought the death to be registered without it. If the identity of the body and the cause of death are not found before burial of the remains, the evidence can hardly be found satisfactorily afterwards.

There is a general concurrence of opinion that the coroners for a county should not be elected by the freeholders at large. But there is not the same agreement on the question how they ought to be elected. It has been proposed that the appointment should be made by the court of quarter sessions, on the principle that the local authority, which makes the payment for the work done, is the proper body for appointing the officer who does the work.

In boroughs, where the town council have the right to elect their more important officer, the mayor, there is no visible reason why they should not also continue to elect the coroner.

Upon the question of qualification, it should be observed that no test of professional fitness is required of a mayor, or a justice of the peace, nor of a sheriff, or under-sheriff; that the greater number of the existing coroners are either professional lawyers or medical practitioners; that the deputy appointed by a coroner for a county must be approved by the Lord Chancellor; and that successive Chancellors have laid down a rule that the deputy must be a lawyer or a medical practitioner.

It would be well, perhaps, if the same control over the appointment of a deputy by the coroner of a borough was given to the Lord Chancellor; and also that the coroner of a borough should have as full power of acting by deputy as the coroner for a county has.

It was proposed by a Committee of the House of Commons that the number of jurors to agree in a verdict should be nine. In some of the colonies, seven is the number required. In the United States of America, six is sufficient. It follows, of course, that if less than twelve are required to find a verdict, the inquisition cannot be taken as a bill of indictment, on which an accused person should be put on his trial.



No objection has been raised to the proposal that the jurors should be taken from the recognised lists of qualified persons; provided the power is continued of taking *tales de circumstantibus*, if necessary. When the time comes that women are admitted to what some people tell us are their full rights of citizenship, and their names are put on the burgess-roll, they can be taken in their turn as jurors.

The suggestions made by the jury are sometimes useful, as leading to the discovery of matters important to the inquiry; and, under due regulation by the coroner, are not found to be objectionable in practice. It may be easy to exclude what is irrelevant from the written depositions; but it will not be so easy in the course of the inquiry to hinder statements that are extraneous or irrelevant from being made by persons called to give evidence, when their knowledge of the facts and the testimony they can give have not been previously sifted by a solicitor.

The coroner should have the power, when he receives information of a death, to summon a medical practitioner for his opinion or for information, and for making a post-mortem examination, if necessary; and he should have power to take the testimony of the practitioner, on oath or otherwise, as he may think best, before he decides upon further proceedings. In many cases the necessity for summoning a jury would be avoided if the coroner could thus obtain information in an authoritative form from a medical practitioner.

These are some of the questions which will receive public attention whenever a Bill for the amendment of the law of inquests shall be again submitted to Parliament.

Oxford.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### ST. THOMAS'S HOSPITAL.

#### THREE CASES OF CLUBFOOT.

(Under the care of Mr. CROFT.)

##### Case 1.—*Talipes Calcaneo-Varus (from a Burn)*—Plastic Operations—Cure.

E. O., a little girl aged two years and three months, was admitted under Mr. Croft's care in St. Thomas's Hospital on April 1, 1880, and kept under treatment for about one year. She was admitted for a deformity of the right foot and toes, caused by the effects of the burning of her stocking about eleven months previously. The deformity might be called acquired calcaneo-varus. The foot had become drawn up towards the shin and inverted, and the great toe had been dragged inwards alongside the inner border of the foot until its tip was directed to the heel. The foot was, in other words, flexed upon the leg so far as it could go, and the great toe was dislocated on its metatarsal bone with extreme adduction and flexion. The cicatrix extended down the middle of the front of the leg and ankle, and down the inner side of the foot to the sole. In front of the ankle the scar had contracted into a firm band about five-eighths of an inch in diameter. From the inner side of the knee a long narrow branch of the scar reached upwards to the thigh. In front of the knee the scar began opposite the upper edge of the patella. The cuticle of the scar was sound, though thin and shining. The back of the leg and the outer side of the leg and ankle were free from scar. Extension of the foot on the leg was impossible in any degree, and it was equally impracticable to overcome the inversion of the foot. The foot formed with the leg an angle of  $40^\circ$  instead of  $90^\circ$ . In its improved condition it forms an angle of  $95^\circ$ . The woodcuts (Figs. 1 and 2) show the state of parts very nicely. They were drawn by Mr. Burgess from a plaster cast.

The treatment consisted mainly of division of the contracted cicatrix in front of the ankle, and of transplantation of skin into the gap. This operation was intentionally divided into two stages; but the course of events necessitated two operations, each divided into two stages.

On May 8, Mr. Croft raised a bridge or longitudinal strap of skin from the back and inner side of the calf. It measured three inches and a half in length and one inch and a half in breadth, and included all the subcutaneous fat with the skin.

Its lower end remained attached to the skin about the inner side of the foot, and its upper end sprang from just below the level of the knee. This strap was prevented from reuniting to the skin and fascia by a layer of lint charged with carbolised oil.

Mr. Croft had hoped that in a fortnight or three weeks, when healing by granulation and suppuration had been well begun, he might have been able to complete the operation; but little illnesses, local or general, caused him to put off the next step until the expiration of about seven weeks (until June 26). Then the bridge of skin was thick and strong and well nourished, and the sore beneath it had to a great extent healed. The great toe, being in the way and useless, was dissected out, and its integument preserved. Next, the contracted scar-tissue in front of the ankle-joint was cut across by a transverse incision, commencing on the inner side close to the origin of the strap about to be transplanted, and ending an inch in front of the external malleolus. The tendons were exposed. The foot was extended. The edges of the incision in the scar were dissected up, towards the leg particularly, and allowed to shrink. A wide breach remained to be filled in. The upper end of the bridge was cut across, the edges and under surface freshened, and the strap brought into the breach; its free end was attached by sutures to the outer corner of the breach, and a few more sutures inserted to keep it in place. This transplant was originally long enough to extend fully and without stretching; but, being swollen and bulky from plastic matter, it could not be fitted accurately into the breach. Of course, it was twisted on itself somewhat at its attached end. The wound was dressed with lint charged with warm carbolised oil, and the whole limb wrapped in wool. The progress was satisfactory except in one respect—about half an inch of the free end failed to unite.



FIG. 1.



FIG. 2.

By August 6, or forty days later, the wounds had all healed, and the foot was in better position. The transplanted skin had not stretched much, but remained prominent and ugly across the instep. Partly owing to the failure on the part of the end of the strap to unite and take root at its outer end, the scar continued contracted in this part, and the inversion of the foot continued. Mr. Croft therefore determined to raise a similar bridge of skin from the outer side of the leg, and add another transplant across the front of the foot, inserting its free end on the inner side of the foot. The parents' consent to this was obtained after some delay.

On October 9—more than five months after the first step of the first operation—this second strap of skin was raised. It was of about the same dimensions as the first.

November 1, or about three weeks later, the recontracted part of the scar on inner side of the foot was cut across, and some of the tissue dissected away. A bed was made for the new piece of skin, and the transplantation was accomplished. The good progress after this was marred by an attack of erysipelas. The new transplant was allowed to contract towards its attached end, and the free end retracted from the spot at which it was most wanted—that is, the inner border of the foot.



A month afterwards, when the child was convalescent from the erysipelas, she suffered from an attack of jaundice. By the first week of December the wounds had healed. A splint was now applied as for talipes varus, and, by manipulation regularly employed, the position of the foot was very much improved. The foot became extended to a right angle, but the inversion continued obstinate.

There was great difficulty in persuading the parents, who lived at Epsom, to leave the child under treatment, but, by promising that no further operation would be performed, she was allowed to remain until April 15, 1881, when she was discharged, and then lost sight of until May 31, 1883, or nearly two years later, when she was found in the very improved condition which is expressed in the accompanying drawing, made from a cast secured at the time. The limb had



FIG. 3.

FIG. 4.

grown in good proportion with the opposite limb, and the child could walk and run well in an ordinary boot. The inversion of the foot was still considerable, but the parents declined to have anything done for it, as the child could run and walk so well. The first strap of skin was fully three inches long, and nearly two inches wide. It had become drawn up across the lower end of the leg. The second transplant measured two inches and a half in length and a full inch in width, and that also had become drawn up on to the leg. Only the ends of these transplants remained in front of the ankle-joint. The upper edge of the incision across the scar had retreated up the leg a distance of more than two inches. The ankle-joint was somewhat stiff, only allowing very slight extension and flexion. When the child walked she applied the sole of the foot to the ground, and the outer edge of the foot was free from corns or bursæ.

*Remarks.*—Although the leg and foot are ugly to look at, the limb is now a very serviceable one—so useful that the parents would not consent to any further treatment of the inversion or varus. The practice of transplanting skin by the method described in this case is so seldom referred to in print, and it is so valuable in its principle, that it seems worthy of notice. Mr. Croft has recently carried out this principle of transplanting in a very bad case of contracted neck. The result has been in every respect highly satisfactory. By adopting this method the surgeon may rely upon the vitality of the flap so long as he does not make the strap too narrow in proportion to its length. Mr. Croft thinks the length should not be much, if any, more than three times the width. The third week seems to be the suitable time for transplanting. Nothing is gained for the flap by procrastinating the transplantation; probably the change of place might be safely effected earlier.

#### Case 2.—Talipes Equino-Varus—Antiseptic Tarsotomy—Cure.

J. B., a girl, aged eight years, was admitted under Mr. Croft's care on June 22, 1882, and discharged August 12 of the same year.

The child suffered from congenital talipes varus on the right side. She had been under treatment in various hospitals, and undergone several operations. It may be presumed that she had originally presented the condition of equino-varus, and that the tendo Achillis and several other tendons had been cut, as the case on admission showed little

of the equinus variety, though the varus was of an intractable character. There were scars about the internal malleolus where tenotomies had been performed. The ankle-joint was nearly stiff, though some movement was perceptible amongst the tarsal joints, and the foot was rigidly inverted—the rigidity not being the result of contracted tendons. She walked with a limp on the outer side of the foot, which was thick and callous. The sole looked inwards; the heel looked inwards also. The fibula was directed backwards. The leg was two inches and a half shorter than its fellow, and the muscles of the whole limb were much wasted. When the sole of the foot was applied to the floor it was done at the expense of considerable abduction (or spurious genu valgum) at the knee and by advancing the leg. She was found to have only four toes, the normal fourth being absent. (See Fig. 5.) Under the circumstances, Mr. Croft decided that he would not waste time in trying splints or tenotomies, but proceed to excise a wedge-shaped piece from the tarsus after Mr. Davies-Colley's plan.

The operation was performed on July 1 by the bloodless method, and antiseptically. No tendons were divided. The immediate improvement was very marked. The progress was perfectly aseptic; extensive primary union took place. In three weeks the wound was soundly healed, and in four weeks she was able to apply the sole of the foot flatly to the floor. (See Fig. 6.) The improvement has since increased, and she has a firm, useful foot, though a short one. She is able to walk in an inexpensive high-soled boot.



FIG. 5.

FIG. 6.

The piece removed consisted of parts of the scaphoid and internal and middle cuneiform bones, and the cuboid bone. It measured at the cuboidal edge one inch and an eighth, and on its opposite edge a trifle over half an inch, whilst from side to side it measured a full inch and a half. The drawings by Burgess, from plaster casts, give faithful representations of the foot before and after operation.

#### Case 3.—Congenital Talipes Equino-Varus—Antiseptic Tarsotomy—Cure.

J. W., a boy of twelve years of age, was admitted under Mr. Croft's care on May 28, 1883, and discharged August 1.

He was the subject of severe congenital talipes equino-varus. He had been under treatment by other surgeons more or less for five years, but was still a great cripple. The foot was rigidly inverted and the heel raised. He walked on the outer side of the foot, where were three callous spots and bursæ—one over the external malleolus, another over the peroneal tubercle, and a third over the base of the metatarsal bone of the little toe. He lived in the country, belonged to very poor parents, wore a very clumsy, ill-fitting boot, and had experienced difficulty in obtaining that.

In every particular this was a worse case than the preceding, but the boy was submitted to a similar operation. A wedge-shaped piece was excised from the tarsus. This was performed by the help of the bloodless method and antiseptics. Immediately after the operation the foot could be brought into a fairly good position.

The after-progress was highly gratifying. The wound was practically well in three weeks. A boot with iron support was supplied to him, that he might have the benefit of such an appliance for about six months. Then, or sooner,



he would be able to wear a boot which any bootmaker would be capable of making. In both cases, in the short space of a month, the wound was absolutely healed, without pain or fever. The position of the foot was so improved that the sole could be placed almost flat on the floor, and the boot-making had been brought within the capabilities of an ordinary country bootmaker.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 17, 1883.

THE COLLEGE OF SURGEONS AND NON-  
PERSONAL VOTING.

ALL the younger members of the profession, and many of the older ones, will have heard with gratification that the Council of the Royal College of Surgeons has practically adopted the principle of non-personal voting at elections to the Council. One may feel fairly confident that this acceptance of a principle hitherto so persistently opposed will not be allowed to remain the expression of a mere "pious opinion," but that steps will at once be taken to obtain a revision of the College Charter, whereby it may be carried into practical effect. Some such alteration in the mode of election to the Council of the Royal College of Surgeons has long been urgently demanded by certain of the Fellows, and supported by considerations of justice and expediency. That a change was desired by a large number of the Fellows is evinced by the presentation to the Council of a petition in favour of non-personal voting, with close upon four hundred signatures. That fairness itself demanded a change, may be gathered from the fact that personal voting absolutely disfranchises many, and practically disfranchises about half the constituency. That this is no exaggeration will be seen by comparing the number of Fellows of the College with the number who register their votes at any election. The College of Surgeons has in times past greatly influenced the surgical curriculum and the surgical examinations, and its influence will doubtless continue to be felt in the future. While London was the only, or even the chief, centre of surgical knowledge and of surgical thought, it was not unbecoming, perhaps, that a mode of

election of its Council should be employed which secured to the Fellows resident in London the whole management of the College. But at the present time the metropolis neither possesses nor claims to possess a monopoly of surgical skill or surgical enthusiasm, while the existence of many flourishing provincial schools proves that it has no monopoly in surgical education; and we therefore congratulate the Council in that it has gracefully acceded to a proposal which the changed circumstances of the time must necessarily have otherwise sooner or later forced it to accept. The Fellows of the College of Surgeons scattered through the country are in some respects representative men—often leaders of professional feeling and professional action in their several districts; and, under any circumstances, but especially at the present critical epoch in the history of the College, it would be inexpedient to estrange the large and important class of provincial Fellows. We trust that any such feeling of estrangement that may have existed will disappear, and that the Fellows, metropolitan and provincial, will again work harmoniously together for the interests of the College and of the profession.

Should, however, non-personal voting at the election of the Council become an accomplished fact, we trust its adoption will not be universal. We have always felt that the annual gathering at the College was productive of much good—old ties renewed, old friendships cemented, old haunts revisited,—and we firmly believe that all who can will attend and register their votes in person. The important step in reform about to be taken by the Council of the College will not, we trust, be at once initial and final. Besides the question of non-personal voting, there are many others that claim consideration. The presence on the Court of Examiners of others than members of the Council—of surgeons and teachers from the smaller London and the chief provincial schools; the occasional election of some eminent non-metropolitan surgeon to a professorship or lectureship in the College; the consideration of some plan by which the constituents can obtain information as to the views on important points of policy of candidates soliciting their suffrages, without exposing themselves to insult or at the least unmannerly badinage,—are all points which, in the interests of the College, no less than in the interests of the Fellows, may well claim early and complete investigation.

## EXPERIMENTAL MEDICATION.

It is almost a truism that the decision between right and wrong in practice is a very simple matter in comparison with the difficult task of formulating an exhaustive theory of ethics. As a man may talk prose all his life without knowing it, so he may be true and just in all his dealings though moral philosophy be to him as a sealed book. The simpler the material and the conditions in which we work, the easier it is to act rightly without hesitation, and the nearer does good practice come to perfect theory. Looked at from this point of view, the doctor's work may be expected to occasionally present some difficulty, though the difficulty is speculative rather than practical. For the medical profession stands indeed apart from all others in the complexity of its relations, scientific, moral, and commercial. It is easy and common enough for a physician to be at once scientific, upright, and at least fairly successful; and it is quite possible for him to show all these qualities in an eminent degree. It may be less easy, however, to set forth accurately where right demands that some of these tendencies should give way to others. The reason of this difficulty is simply that the material of the doctor's operations is the bodies of his fellow-creatures. Were it not for the moral duty implied in this fact, the scientific physician might justifiably follow the spirit of research wherever it led



him, and experiment to the top of his bent; while the more worldly-minded might be as rigid in his business transactions with every possible patient, with as full a moral sanction as is commonly extended to the lawyer or the tradesman. It is perhaps the medical art alone which must of moral necessity be often exercised without reward, nor need we labour to prove that innumerable instances arise where the neglect so to exercise it would be clearly culpable. In other lines of business a man may always expect his definite *quid pro quo*, or at least it is not fair to blame him if he does not freely give away his stock-in-trade. What to others may be a work of supererogation is often to the doctor a moral duty as a social being. It is therefore good feeling alone which so often and, we believe, so generally prevents the man and the tradesman from clashing in the doctor's complex being. Although the moral and the practical may seem at first sight to be slightly at cross purposes here, the public knows full well that there are those in the profession, not few nor far between, who fail not one jot in their sacred duty towards their fellow-men.

Now, with regard to the relation of the strictly scientific and the personally humane element in the practice of our many-sided profession, may not the same be said in other words? The difficulty of carrying out our double duty of at the same time doing the best for our patients and of endeavouring, for the good of humanity at large, to advance medical knowledge, is almost *nil* in actual practice. It is scarcely ever that the physician who is mindful alike of science and humanity finds it necessary to pause and consider his line of action. But, nevertheless, though this difficulty is so small, though it is even less than that offered by the occasional antagonism of the patient's interest and the doctor's pocket, it is not quite so simple a matter rightly to define in words the respective fields of our bounden duty towards our individual patients and that towards the advancement of medical art for the benefit of all. A little consideration, however, will sufficiently clear up the theoretical aspect of that right position which it is never difficult to practically take up at once. Medicine is essentially an advancing study, and as such its practice cannot always rest on completely established knowledge. The physician who works in the most complicated field of all (the human body) is never ashamed to confess that much of his work is carried out by a very glimmering light; and he can well afford to scorn the often and blunderingly quoted gibe that "doctors differ." He knows it must be so. All treatment of disease must be largely experimental, and this element is often not lacking even in the giving of the most time-honoured drugs to various individuals. The exact result cannot always be predicted; sometimes it is widely different from what we have good reason to expect. In every case of treatment of disease the best that the best of us can do is to act up to our highest lights as students of medicine and social beings, never forgetting that by the very force of circumstances the patient (for the time at least) trusts, and trusts implicitly, in our knowledge and good faith. Obviously justifiable experiment of this kind plays no small part in medical treatment; and till medicine is an exact science—which it may never be—advance must largely depend on such-like grounds. It is not only in drug-giving that the necessity of this method is apparent. No one, for instance, would blame the doctors who first experimentally, and with the best intentions, sent their consumptive patients to winter among Alpine snows. Such experiments as this, for the most probable good of the patient and the community at large, is not only allowed to, but actually required of, the medical man. Not less valuable, clearly—though here the question takes a fresh departure,—would experiments be which were made mainly for the advancement

of medical knowledge without immediate regard to the individual patient. If we wished to properly use, for instance, a new and probably efficacious drug, it might occasionally be necessary to administer it experimentally to human beings. No written rule of conduct seems to be wanted here as to on whom we may and on whom we may not experiment; the line which divides the duty of the advancement of the art from that of the faithful treatment of the individual must surely be clearly seen in practice, and a man must never suffer for the race at the doctor's hands, whatever sacrifices may be required of him at the hands of nature.

By a process of exclusion it is easy to see the application of this, and how the field of legitimate experiments on the human body for objects other than that body's immediate welfare must be defined. It is needless to say that all so-called experiments involving suffering for the purpose of demonstrating what is already known are unjustifiable, and especially so in the case of hospital patients. In this condemnation we would not include the postponement for a few days of giving a supposed specific medicine in a case of skin disease, in order to bring its action vividly before the eyes of students,—a proceeding for which, not long ago, Mr. Hutchinson was so absurdly attacked, and which, while doing no harm whatever to the patient, might have been of obvious and far-reaching usefulness; but to inject an active drug (pilocarpine, for instance) into a hospital patient for the purpose of exhibiting its action to students would at once be condemned by the moral sense of the most ardent of experimental physiologists. It is equally clear that we must never withhold in any case of suffering the course of treatment which the best experience has proved to be for the good of the patient in order to try a new or doubtful method. No consideration of possible advantage to the public at large should be allowed to weigh in a case like this. Again, we are never justified in causing pain or inconvenience to anyone, whoever it may be, in trying a new remedy for the sake of knowledge alone, unless the object of the experiment be made a full party to the transaction, and have fully explained to him the object in view. Still less, it need hardly be said, is such treatment justifiable when danger, however small, may be involved in such a trial. The philanthropic therapist will doubtless confine an investigation like this to his own person, or that of an equally enthusiastic or enlightened friend. All experiments in treatment such as this, of whatever moment they may appear to be, should be limited by the conditions indicated; and such conditions it is by no means impossible or difficult to obtain. In the case of the trial of remedies which, though in some sense new, are yet demonstrably harmless, such stringent precautions perhaps need not be observed. A new preparation, for instance, of a well-known drug, or other modifications of treatment, may be tested with respect to their alleged greater efficacy, in cases where it is obvious that no harm or discomfort can arise. In such a case proper feeling alone must be the guide; and it may not be any more necessary to enter into details here, than it is advisable to tell every individual patient who is prescribed a purgative or a narcotic that the drug may possibly fail in its effect. This, however, is the only exception, if exception indeed it be, to the golden and literal rule of always and everywhere doing our immediate best for the person under our care, and keeping strictly to the sacred moral contract implied in the relation of doctor and patient.

According to the limitations thus laid down, we cannot but decide that the administration of sodium nitrite to certain hospital patients, as reported in the *Lancet* for November 3, if looked upon in the light of experimentation with the drug, must be pronounced unjustifiable, and as



deeply to be deplored, unless it can be shown that in every case the patient was a consenting party to the transaction, and was prepared for possible or even probable unpleasant effects. In justice to Drs. Ringer and Murrell, it must be remembered that this drug had been supposed to have already been given in far larger doses by others without the production of toxic effects, and with alleged benefit in certain cases. The tentative administration of it, therefore, in smaller doses, when found to be unexpectedly active,—provided always the cases were such as might reasonably be expected to benefit therefrom,—might thus be justified on the ground of its not being merely experimental. Such justification, however, cannot be extracted from the words of the *Lancet* report, however charitably they may be construed; and though we may fully believe that one object of the publication of what the authors admit to be “experiments” was to warn others of the newly discovered danger of the drug, we cannot acquit these gentlemen of a grave failure in professional duty in thus prescribing wholesale, in such circumstances as they themselves detail, a drug they well knew to be most powerful. As a matter of practical ethics, it must for safety’s sake be insisted on in no uncertain tone that it is not for one man, from any motive whatever, to cause another to suffer without his consent for the good of the greatest number. A doctor who thus acts, especially in the case of hospital patients, is really false to his unwritten but no less sacred contract with all, and, by publishing his indiscretions, both indirectly lowers the credit of his professional brethren, and helps to retard the course of legitimate scientific inquiry.

### CHRONICLE OF THE WEEK.

THE past week has been an unfortunate one for the medical profession, and in the case of the smaller hospitals, with their very sensitive subscription-lists, may prove to have been disastrous. It was not to be expected that the sodium nitrite paper, once published, would escape the hawks’ eyes of the anti-vivisectionists, and before long it will obtain a publicity on which its authors scarcely counted. A few days will see the profession pilloried on every hoarding; for in a case like this no trouble will be taken by our opponents to discriminate between the offenders and their innocent brother practitioners, but a facile generalisation will be made from this particular instance, and the whole medical profession will be denounced as inhuman because some have forgotten their humanity. Irreparable harm has been done, and the only hope of counteracting it lies in giving as wide a publicity to the “defence” of the profession as has been given to the “indictment.” No one can doubt what line that defence will take, but it ought to have been made publicly known days ago.

THE heads of the medical staff of the two hospitals which might be considered to be incriminated have shown no hesitation in repudiating the experiments; but if such repudiation was necessary for the reputation of the hospitals, it is equally, if not more, necessary for the reputation of the profession, lest it should be cast in our teeth that our ethics are merely a matter of pounds, shillings, and pence, and are put on to hoodwink the charitable. Instead of keeping silence on the matter, the leading organs of medical opinion ought, in our opinion, to have taken up a courageous position, and spoken out the mind of the profession. The medical staffs of all the London hospitals should have met together days ago, and issued such a combined declaration as would have cleared them of all suspicion, of imitating, or even of sympathising

with, the experiments. And it would not have been a superfluous utterance of the President of the College of Physicians had he come forward to give, on the part of the profession, an authoritative expression to that opinion which, we are convinced, he shares with all of us who are sensitive to the honour and reputation of our calling. It is not yet too late for any of these measures.

At the Clinical Society’s meeting on Friday, November 9, a large number of members attended to hear two interesting papers on important questions of surgery, by Mr. G. R. Turner. On their conclusion, the President paid a well-deserved compliment to the author, and predicted an interesting debate upon the subjects referred to, viz., the treatment of wounds of the plantar and palmar arches, and the operative treatment of fracture of the patella. A reference to our report will show that this prediction was fully borne out in a debate prolonged for half an hour beyond the customary limit. An interesting living specimen of subcutaneous nodules of uncertain origin was shown by Dr. J. K. Fowler.

Two debates in one week upon the same subject, eliciting the opinions of many of the leading surgeons of the day, should result in some definite conclusion as to the merits of the subject debated. Although such conclusions can only be deduced from the pervading tone of opinion, it must be evident that the discussions upon the operative treatment of fracture of the patella, at the Medical and the Clinical Societies respectively, have led to the conclusion that the operation is only justifiable and safe when it can be undertaken as Prof. Lister himself undertakes it, viz., with every appliance of antiseptic surgery at hand, and with skilled assistants to superintend every detail of the after-treatment. The large experience of hospital surgeons of successful cases treated without external wound, and the apparently small number of failures that they are able to record, cannot be overlooked, more especially when the results obtainable by the new method are, at best, only as good as the best results of the less severe measures. Everyone must admit that the successful osseous union of the two fragments of a broken patella within the space of six weeks is a consummation devoutly to be wished by surgeon and patient alike, and to obtain it there are many who would eagerly place themselves in Mr. Lister’s hands in preference to those of the advocates of the older method; but, in the face of Mr. Lister’s strongly expressed views as to the absolute necessity of employing the most rigid antiseptic precautions, intending operators with restricted means of using such precautions will probably decide in favour of the safer, if more tedious, mode of treatment.

At the meeting of the Royal Medical and Chirurgical Society, on Tuesday, a discussion on the pathology of spontaneous aneurysm in young subjects followed the reading of a paper on a spontaneous aneurysm in a boy twelve years old. Mr. Holmes, while unable to explain the actual mode of production, could not but feel that there must be some causal connexion between embolism and aneurysm on account of the great frequency with which these diseases are associated; and he related a case which occurred in St. George’s Hospital some years ago, illustrating this fact. Other points supporting the view, such as the occasional dilatation which is found in arteries above the seat of a ligature, were mentioned. Mr. Barwell thought there was no necessary connexion between aneurysm and embolism, because in none of the recorded cases could an embolus actually be found. Something more than plugging would be required to explain an aneurysm, for aneurysms never



occurred after temporary obstruction. Dr. Goodhart thought the embolisms which gave rise to this disease were not vegetations from simple endocarditis, but rather vegetations from a form of fungating (ulcerative) endocarditis, which contained septic material. Deposited in any artery, this septic material caused local softening, and thus predisposed the arterial coat to yield to the pressure of the blood-current. Mr. Barker referred to the relative merits of silk and catgut as a ligature for arteries in their continuity; and advocated the former as being thoroughly efficient, if applied with antiseptic precautions, and easy to procure at all times and in all places. Mr. Berkeley Hill mentioned a case in which cell-proliferation, as demonstrated by the microscope, seemed to indicate that silk was not quite so innocuous as Mr. Barker imagined. The President inquired as to a possible rheumatic or syphilitic origin, but the author was unable to give any confirmatory evidence. The discussion is reported at length elsewhere. Preparations from Guy's, St. George's, and St. Bartholomew's Museums, and from the College of Surgeons, were shown, illustrating aneurysms in young subjects.

ON Tuesday last the Duke of Edinburgh laid the foundation of a new wing to the Croydon Hospital, and was afterwards entertained at luncheon by the first Mayor of the new borough, Mr. Spencer Balfour, M.P. The Croydon Hospital has had a short but successful history, and it is to be hoped that its future progress will be as favourable as its past. Started only some sixteen years ago, in a building of the old Croydon Workhouse, it was transferred a few years ago to a roomy old-fashioned house near West Croydon station, till then occupied by a well-known Quaker family. Some of the wards, for light and airiness, were everything that could be desired, and the position was eminently favourable; but the accommodation for the out-patients and for the resident officer was very unsatisfactory, and it was widely regretted at the time that an entirely new hospital was not built. The construction of the new wing will remove many of the old inconveniences, as well-arranged out-patient rooms and casual wards, apartments for the House-Surgeon, and a spacious operating-room will find a place in the present addition. The authorities have wisely extended their Hospital in such a direction that it will not encroach on the beautiful old garden, which is one of the chief advantages of the Hospital. It is no doubt a very great boon to patients to be able to step out of their wards into the sunlit quiet of a garden; and the surgeons show that they fully appreciate the curative influences of pure air by erecting a tent in the summer-time for the treatment of suitable cases. The ground around the Hospital has of late been rapidly covered by houses, and it is difficult to believe that so recently as ten years ago a herd of deer nibbled the herbage where now rows of modern villas stand. Croydon is evidently alive to the wants of modern civilisation.

THE "mystery-mongers" have enjoyed a real treat this week, in the "extraordinary occurrences" which have happened in connexion with a certain young woman aged thirteen, and living near Shrewsbury. The Psychical Research Society certainly failed in their duty both to themselves, to their journal, and to the community in not at once sending a deputation to report on the case, and in leaving it to be unravelled by an unscientific newspaper reporter. How was it to be known that the phenomena were not extraordinary and exceptional manifestations of psychic force? Nothing seemed to escape it. The bucket in which the girl was washing jumped about the house, throwing water and clothes in all directions. The family Bible and other books placed on a side table did the

same, narrowly escaping the flames. On attempting to pick them up, a boot flew over the girl's head, striking the mantelpiece. Later on, the clothes she placed on a hedge for drying, jumped over into the road. On arriving at her home, her presence induced a lump of coal to leap from the fire across the room to a table; and the flowerpots in the window also behaved in an extraordinary manner. The girl shortly afterwards went out to fetch her father, but before proceeding far she became very ill, and fell down in the road. She was conveyed back to her home, and a physician called in. The next day there were similar occurrences, and during the night six panes of glass were broken in the room, and outside the house were strewn broken bricks, crockery, glass, stones, etc., which could not be accounted for in any way. One woman was struck with a stone 150 yards off; another, who was in the house, received a wound on the arm from a knife passing her; and an ulster belonging to the girl had every button torn from it in the room. *A number of the Shropshire constabulary visited the premises on Saturday to investigate the extraordinary circumstances, but were unable to solve the mystery. The girl was made to do some household work, but nothing unusual was observable.* Dr. Corke, of Baschurch, was called in on Saturday, and made a close examination of the girl, but was unable to obtain much information from her. He stated that she was in a very excitable and nervous state, but was not a designing girl. Since then the patient has been taken away from her home, and has confessed, what every sensible person knew, that she was herself the author of all the disturbances.

THE whole account is an interesting illustration of how hysteria and imposture subtly combined can form the basis of a sensational story, when helped out by a large element of hearsay and superstition in the report of the alleged "facts." It is instructive to read, in connexion with the case, the remark of Dr. Wilks, that "the strangest vagaries of human nature are those which occur in young females in the early stages of womanhood. The behaviour is often like that of one 'possessed of a devil,' for the acts are not those of an ordinary criminal who has an object in his wicked deeds, but are often purposeless, or for the simple love of mischief. When you see a paragraph in the news papers headed "extraordinary occurrence," and you read how every night loud rapping is heard in some part of the house, or how the rooms are being constantly set on fire, or how all the sheets in the house are torn by rats, you may be quite sure that there is a young girl on the premises."

TINNED foods are so great a boon to the poorer classes that it would be a very great pity if the case of poisoning by tinned lobster, reported last week, should prejudice the public against them. The introduction of these preserved foods has brought to the table of all but the very poorest, foods with whose flavour they would otherwise never have a chance of making an acquaintance. It is hardly too much to say that every day the tinned lobster and the tinned salmon are relished in thousands of artisans' households, and to stop their use would be as great a deprivation to the artisan as the prohibition of game would be to his master. It seems fairly conclusively proved by the evidence given in the case reported that the tinned salmon was really the cause of death. The alimentary tract showed signs of severe irritant poisoning, and the contents of the tin proved fatal to guinea-pigs. The exceptional effect in this case was traced to the fact that the tin had been opened some time, the salmon had decomposed, and the tin coating had been largely dissolved. But the danger is to be avoided with common



care. It was recently shown in our pages that the amount of tin found dissolved in tinned foods freshly opened is comparatively small, and though there may be some risk of chronic tin-poisoning from the continued use of such foods, there is no danger of acute poisoning if the food is either eaten directly the tin is opened, or is at once transferred to a glass or earthenware vessel. It would be well if directions to this effect were placed on every tin, but the enforced substitution of glass for tin vessels would probably double the cost, and so place the enjoyment of these foods beyond the reach of the classes to whom they are now so great a boon.

NOTHING can be more reasonable than the contention put forward by the Anti-Beer-Adulteration Society, at the meeting at Canterbury on Saturday last, that brewers who brew from other materials than malt and hops should be compelled to inform their customers of the fact. It is quite possible that a safe and palatable drink may be made from beetroot and gentian; and it is not desirable, or indeed desired by any enlightened person, that attempts to introduce beverages of that sort should be suppressed. But at present the public favours beer brewed from materials that ripen in the full light of the sun, in preference to the concoction made from such substances as mature their sweet and bitter principles in the dark laboratory of the earth. The very word "beer" implies the use of malt and hops, and until the definition of the term has been widened by public consent to include any alcoholic beverage containing a bitter principle, the use of anything except malt and hops in the brewing of beer may legitimately be denounced as an adulteration. The whole question ought to be argued and decided purely with regard to the general public weal. Of course, the growers of hops and barley and the manufacturers of malt have a direct personal interest in the matter, but they will injure a very excellent cause if they let their hand be too plainly seen in the agitation.

THE *Progrès Médical* this week is entirely given up to the students' number, the medical year in France, as our readers are probably aware, commencing much later than our own. The *Gazette Hebdomadaire* gives the conclusion of M. Marboux's paper "Étude critique sur la Tuberculose articulaire." The *Gazette Médicale de Paris* contains an important paper by M. Dejernie (whose researches on diseases of the spinal cord are so well known), headed "Sur la Nervo-tabes périphérique." The *Gazette des Hôpitaux* has an article entitled "Névrite sciatique des Phthisiques," and the *Concours Médical* a paper by M. Carrière, "Réflexions au sujet d'un cas de Tétanos."

THE *Centralblatt für Klinische Medizin* contains an original paper by Prof. Ehrlich on Sulphodiabenzol, a Reagent on Bilirubin; abstracts of several papers on Tubercle-Bacilli; and of two dissertations, by Fischer and Brecht of Berlin, respectively, on the Diago Reaction. Dr. Ogneff, of Moscow, contributes to the *Centralblatt für die Medicinischen Wissenschaften* an original paper on the Histology of the Retina. Amongst the numerous abstracts the following are of interest:—Düsing on the Factors for the Determination of Sex; Pfützner on the Structure of Nuclei; Kiesselbach on the Galvanic Stimulation of the Acoustic Nerve; Wahl on Suture of Fractured Patella; François Franck and A. Pitres on Epileptiform Convulsions of Cortical Origin. In the *Centralblatt für Chirurgie*, Dr. Kocher, of Berne, gives close details of the method of applying Sutures in the Resections of the Stomach and Intestines. Dr. Walzberg, of Minden, contributes a paper on the Differential Diagnosis of Tic-douloureux and Toothache. Abstracts

of papers by Petrone on the Miasmatic Origin of Purpura are also of interest. Dr. Mermann, of Mannheim, contributes to the *Centralblatt für Gynäkologie* some Aphorisms on the Management of Midwives. An abstract of a paper by Dr. May, of Munich, on the Infectiousness of Milk from Cows with Bovine Tuberculosis, may also be noted. The *Berliner Klinische Wochenschrift* publishes in extenso Prof. Virchow's recent address on Congenital Encephalitis, and the first part of a paper by Dr. Felix Semon, of London, on the Paralysis of Individual Strands of the Inferior Laryngeal Nerve. In the *Wiener Medizinische Wochenschrift*, Dr. K. Braun von Fernwald discusses twelve cases of Cæsarian Section with Hysterectomy; Dr. Herz contributes a critical sketch of the Modern Medication of Diphtheria; and Dr. Schmucker, a case of Puncture of the Pericardium.

#### ANTISEPTICS AND HOUSE-SURGEONS.

WHILE an increased faith in the efficacy of strict antiseptic precautions must of necessity follow the brilliant results obtained by Prof. Lister in his treatment of fractured patella, the remarks made by him at the last meeting of the Clinical Society on the subject of attention to the details of dressing should be seriously taken to heart when dangerous operations are undertaken. The suggestions thrown out—by one surgeon, that the septic condition of a wound hitherto aseptic *might* have been due to the absence of the regular house-surgeon upon his holiday; and by another, that similar want of success *might* have been the result of a little assistance rendered during the operation by a colleague with unwashed hands—are instructive. Much of the opprobrium of failure of antiseptic precautions in hospital cases must of necessity fall upon the house-surgeon or dresser, if, as in some large hospitals, the latter is placed in responsible charge of his cases. If a house-surgeon is to be thoroughly versed in all the details of antiseptic dressing, so as to be equal to the emergency-practice of a large hospital, he must have been brought up, as it were, in an antiseptic or Listerian atmosphere, and his mind must be imbued with a persistent enmity towards all sorts and conditions of germs, and accustomed to regard the homely poultice as a barbaric contrivance of a bygone age. But house-surgeons and dressers must in their turn enter upon the general practice of surgery and be prepared to treat cases and to operate under circumstances where antiseptics cannot be applied. Here their knowledge of the manners and customs of disease-germs and their contempt for the efficacy of the poultice will avail them but little, and patients may suffer in order that their medical attendants may theorise. Until the day, predicted by Prof. Lister, arrives when rigid antiseptic rules shall be universally applied, the custom of restricting the student to the practice of one surgeon only will be followed, as it frequently is at present, by the unsatisfactory consequence that the general experience of surgical practice has to be learnt at last instead of at first. But Mr. Lister insists that the success of antiseptic treatment depends largely upon the antiseptic training of those who have to carry it out. Perhaps the best way out of the difficulty is that suggested by himself, viz., that surgeons should attend daily and see to their dressings themselves.

#### A GLIMPSE INTO THE FUTURE.

It is a great practical advantage to us English people to have constantly before our eyes a nation so far in advance of us in every way as the Americans. We can take warning by their example, following or breaking away from them according as their pioneering is successful or the reverse. They are to us as the Beryl-stone in Rossetti's ballad, in



which we can see our future accurately depicted if we only look at it with a faithful heart. Here is one of its pictures!

“‘A BLOODLESS OPERATION’: A YOUNG LADY’S LEG AMPUTATED AT THE BUFFALO GENERAL HOSPITAL.—The clinic of Dr. Roswell Park last week consisted of a very interesting surgical operation. The new professor of surgery is fast winning friends among physicians and students by his genial ways and thorough understanding of his special branch of medical science. He is a man conversant with the latest surgical literature, and consequently performs operations according to Lester’s (*sic*) or the aseptic or antiseptic methods. The first case at the clinic Wednesday, etc.”

Then follows a full description of the case. The extract is from a paper published at Buffalo, a city of some two hundred thousand inhabitants. The following is from an editorial in another Buffalo paper, curiously enough an admirer of the same practitioner:—

“During the early part of the summer a little boy named Stricker was run over, on an East-side street, by a heavily loaded beer-waggon. The wheels passed over his right leg, fracturing it terribly. The child was removed to the General Hospital, and for a time it looked as though the leg would have to be amputated. But the attending physicians worked hard and the limb was saved. As is usual in such severe cases, the surface became ulcerated, and were (*sic*) healing slowly. On Saturday, before the clinic class of the University of Buffalo, Dr. Park performed the operation of skin-grafting, which consisted in removing a small particle of healthy skin from the boy’s leg, and after cutting this into very minute pieces, scattered it on the surface of the ulcerated surface (*sic*). In a short time these little grafts will begin to spread out, and a new and healthy skin will be formed.”

What Beryl-stone could tell us more accurately whither we are tending and where we shall be landed if the “medical bulletin” is allowed to develop itself in the way that newspaper reporters wish?

#### CIVILISATION THE RESULT OF INTELLECTUAL PROGRESS.

THIS was the subject chosen by Dr. Bell Pettigrew, the Professor of Physiology at St. Andrews University, for his introductory lecture to his class on the 6th inst. The history of civilisation, said the lecturer, was virtually that of intellectual progress, and intellectual progress, within the historical period, might be said to have kept pace with brain-changes in the human race as a whole. It was therefore necessary, in dealing with the subject of civilisation, to refer preliminarily to the nervous system not only in man but in the lower animals, and especially to the great centre of the nervous system, the brain. Prof. Pettigrew then proceeded to trace the nervous system from man downwards to the lowest animal forms in which it is recognisable, referring also to the great race of sensitive plants, certain of which had been shown by Darwin to display an amount of sensitiveness unknown even amongst the highest animals. For every fresh increment of brain-substance there was an increment of brain-power and intelligence, and that increased brain-substance was brought about by cultivation. The integrity of the cerebral hemispheres was, however, necessary to the production of intelligence and will. When these are defective or diseased, there follows inability to discriminate between what is important and unimportant in matters of daily life. Semi-civilised nations have smaller brains than Europeans, and thus the advance of the arts in Europe. The lecturer proceeded to prove his case by referring to the progressive development of nations and races. Progress in man, he said, proceeds in two directions—physically and mentally. For the last four thousand years at least, however, the body of man has remained to all intents and purposes stationary. It is the mind which during the period in question has made gigantic strides. The body of the modern savage is as perfect as that of the most civilised modern man, but the mind of civilised modern man is as much in advance of the mind of savage man as the mind of savage man is in advance of that of the gorilla. All modern improvements and discoveries are traceable to

the sedulously cultivated and enormously developed intellect of man.

#### CONGENITAL ENCEPHALITIS.

THE valuable address of Prof. Rudolf Virchow, of which we publish an abstract in another column, will be read with much interest in this country, where the conditions of the brain, of which it treats, have received but scanty attention, although probably familiar to most pathologists. Occurring, as they appear to do, with such great frequency, they have been, perhaps, too readily accepted as normal conditions. The strongly expressed opinion of Prof. Virchow to the contrary will turn attention to the subject and lead to the reconsideration of the former beliefs, with the aid of the increased facilities for studying the pathology of the brain which have of late years been introduced.

#### THE PARTNERSHIP OF THE FUTURE.

“GREAT wits jump together,” says the old proverb, and though probably no “great wit” has been allotted to the anonymous author of the “Medical Idyll,” “Dr. Edith Romney,” yet we may remark that one of the leading ideas upon which the tale turns is one which has been present also, almost simultaneously, to an undoubtedly great mind. It is that of the intermarriage of medical men and medical women; and we had scarcely recovered from the painful effort involved in the perusal of the novel, before we found the same point touched upon by Dr. Wendell Holmes in his Harvard address. “I have often wished,” says the versatile author, introducing, as is his wont, a lighter passage among his graver thoughts, “that disease could be hunted by its professional antagonists in couples—a doctor and a doctor’s wife.” May we think that we see the future foreshadowed in these lines, and again in the history of Dr. Romney aforesaid? Will it hereafter be the aim of the idle Adonis of the hospital (we all know the type) to devote his cumbersome energies to the captivation of a fair partner who may help him—after the agonies of examinations are over—to the enjoyment of that restful life for which he is best fitted? And may we wonder, with all respect, to whose share in this the latest form of “sleeping” partnership will fall the harassing labour of the nightwork in the joint practice? We should imagine that in this a more fruitful source of conjugal differences than any yet revealed may be looming in the future.

#### A PREPARATORY SCHOOL OF MEDICINE AND NATURAL SCIENCE.

THE authorities of the West London Hospital, being anxious to utilise it as a place for medical education, have drawn up, and are about to carry into execution, a scheme for the foundation of a preparatory school for medicine and for natural science. The Hospital contains 101 beds, and is conveniently near to South Kensington Museum—*i.e.*, ten minutes journey by the District Railway. The objects aimed at are stated as follows in the prospectus which lies before us:—

1. To give, in a more complete and systematic manner than has heretofore ever been attempted, all the advantages of a year’s pupilage at a first-class provincial infirmary or county hospital.
2. To give thorough and practical instruction in natural science, such to be carried up to the standard of the Preliminary Scientific (M.B.) Examination of the London University.
3. To give intending medical students an early insight into medical work, so that they may, without needless loss of time or money, be able to judge whether or not they have chosen the right profession. To attain these ends, courses of lectures are arranged for, which, as regards advanced subjects, such as medicine and surgery, will be, the prospectus states, “purely elementary, being, in fact,



adapted to excite an intelligent interest in, and to give a general idea of, hospital practice." But the instruction in materia medica, osteology, and the subjects of the Science School will be more complete, it being intended to prepare the student for the First Professional Examination for the L.R.C.P. Lond., and, if he should wish it, for the Preliminary Scientific (M.B.) of the London University. The "School of Science," while located at the Hospital and worked in alliance with the Preparatory School of Medicine, appears to be in a sense distinct from it, for the former is "in connexion with the Science and Art Department of the Committee of Council on Education, South Kensington," and under the management of a distinct committee. The subjects taught are mechanical philosophy, physics, chemistry, botany, zoology, and, we are glad to see, drawing—one of the most useful accomplishments a medical student can possess. The fees are apparently reasonable enough, and, for further information, applicants are referred to "the Secretary of the Medical School, West London Hospital, Hammersmith-broadway," or Mr. C. B. Keetley, 20, Princes-street, Hanover-square, W.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-fourth week of 1883, terminating October 30, was 932, and of these there were from typhoid fever 30, small-pox 5, measles 7, scarlatina none, pertussis 10, diphtheria and croup 27, dysentery 1, erysipelas 4, and puerperal infection 5. There were also 53 deaths from acute and tubercular meningitis, 202 from phthisis, 30 from acute bronchitis, 50 from pneumonia, 69 from infantile athrepsia (22 of the infants having been wholly or partially suckled), and 28 violent deaths. The mortality continues at the same low level which it has exhibited since September. Typhoid fever has diminished from the 45 deaths of last week to 30, while the other epidemic diseases have also diminished or are stationary. Pertussis, which had prevailed epidemically during six months, has much diminished during the last four weeks. Scarlatina has caused no deaths in Paris during two successive weeks. During the week there were 1203 births (608 males and 595 females), 881 legitimate and 322 illegitimate.

#### RESEARCHES ON YELLOW FEVER.

THE recently published volume of reports of Her Majesty's Diplomatic and Consular Officers contain a summary of the results of an inquiry conducted under the authority of the Brazilian Government by Dr. Domingos Freire into the causes of yellow fever and the best means of combating its ravages. Dr. Freire, after a long series of experiments, has arrived at the conclusion that the disease is due to the rapid development and increase of a special microbe, which he calls *Cryptococcus xanthogenicus*. He finds that all the symptoms of yellow fever can be produced by inoculation; that where the special micro-organisms are present the fever certainly follows; and that, on the other hand, when they have been exposed to high temperatures, inoculation with the substance containing them fails to produce fever. Inoculation with a drop of blood from a person dead of yellow fever caused the death of a rabbit in a short space of time. A drop of the rabbit's blood brought about the death of an inoculated guinea-pig; and a second guinea-pig inoculated from the first, died of the fever, and presented symptoms exactly like those of yellow fever in man, whilst the autopsy after death revealed a perfectly similar alteration of the tissues and internal organs. The organisms showed no sign of losing their virulence by continuous transmissions, for nine transmissions of blood, even when diluted with water, had unfailingly caused death in the animals inoculated.

This persistence of virulence evidently goes to prove that the agent of disease is a living agent, and careful microscopic examination actually revealed the presence of minute living organisms in different stages of development. "But," continues Dr. Freire, "if the microbes or animalcules are really the cause of yellow fever, their destruction should render harmless the introduction of the organic liquid into the circulation. This test was successfully obtained. A piece of the arm of a person who had died of yellow fever was triturated and mixed with water quite free from organisms, and filtered. Microscopic examination proved that a drop of filtered liquid showed swarms of microbes. Steps were taken to subject a portion of the infusion to intense heat, and the resulting sediment was introduced into the circulation of a guinea-pig without producing any injurious effects, while another portion of the infusion, not sterilised by heating, produced death within two days." Other experiments showed that the infection could be communicated by means both of the air and the soil, the earth from a cemetery in which yellow-fever patients had been buried having been found to convey the disease to a guinea-pig when introduced by suitable means into its circulation. This is one of the strongest arguments in favour of cremation that we have yet heard. But perhaps the most extraordinary result of the Brazilian Government inquiry is that Dr. Freire professes to have discovered other organisms which, being inoculated into the system of men and animals, prevent the subsequent development of the yellow-fever parasite; and he mentions cases in which guinea-pigs so fortified withstood the inoculation of the most deadly infusions of the yellow-fever germ. On this point, however, it will be well to keep an open mind until Dr. Freire's results have been repeated and revised by other workers in the same field.

#### A MEDICAL VICTORY AT LIVERPOOL.

At a meeting of the Liverpool City Council on November 9, it was moved that the Insanitary Property and Artisans' Dwelling Committee should consist of twelve members, only one of whom was a medical man. There are three other medical men on the Council, and Mr. Stephens at once moved as an amendment that the Committee should consist of fifteen members through the addition of these three councillors. Mr. Forwood, the leading advocate of compulsory notification of infectious disease, objected to Dr. Hamilton, especially on the ground that he was antagonistic to notification, and therefore would not work harmoniously with himself and the other members of the Committee. On a vote being taken, Dr. Hamilton was added to the Committee by a majority of two to one. Drs. Cross and Bligh were afterwards appointed members of the same Committee. The medical men on the Liverpool Council have therefore asserted their right to be heard on sanitary matters, and we hope their example will be followed by the medical profession everywhere. Hitherto in Liverpool the medical profession has had no voice in these matters. Even the Medical Officer of Health was restrained from reporting insanitary property except at such times and in such localities as the Health Committee thought fit. By such a course the responsibility was kept from falling directly on the Committee, and was left on the shoulders of the Medical Officer of Health, who occupied much the same position to the Health Committee as the "whipping boy" did to youthful but erring princes. The Liverpool Medical Officer of Health has been allowed to emerge from this condition of restraint, and at the last meeting of the Council he reported on fifty-five houses as unfit for human habitation. A councillor said he was certain the medical officer had allowed



his reputation to suffer at the hands of the medical men of the city in consequence of his adherence to the wishes of the Health Committee. May the events here described inaugurate a course of action that will soon reduce the number of uninhabitable houses that now abound in squalid Liverpool.

#### AN UNUSUAL FORERUNNER OF RHEUMATIC FEVER.

Most of us are familiar with ear-troubles as an after-result of acute illness, and especially of the exanthemata in childhood, but these have not often been observed, or perhaps, to speak more accurately, have not often been recorded, as occurring amongst the prodromata of an acute illness. Such a connexion, however, between rheumatic fever and inflammation of the tympanic membrane has recently been described by M. Ménière, in the *Revue Mensuelle de Laryngologie* for November. His patient was a man aged thirty, who, in consequence of a chill, complained of severe lancinating pain, with remissions and exacerbations, in the ear, and who presented those changes in the form and colour of his tympanic membrane which commonly are the precursors of an attack of otitis interna. On the fourth day, however, rheumatic fever declared itself, and the ear-trouble rapidly disappeared. M. Ménière considers that this was not a true otitis media resulting from the chill, but a peculiar congestive attack without any exudation, and closely associated with the rheumatic attack. He considers that its occurrence may be regarded as evidence in support of the view (which is not, however, confirmed by histology) that the tympanic membrane is partly a serous membrane and partly a mucous membrane. Surely this is very feeble reasoning. Rheumatism attacks fibrous structures as well as serous. If we are to base our minute anatomy on pathological theories, we shall arrive at a good many strange conclusions. For instance, not to leave the present subject, tonsillar inflammations are exceedingly common in association with rheumatism, but we have yet to learn that the tonsils are lined with a serous membrane.

#### DEATH OF DR. MARION SIMS.

WE regret to hear of the death of the distinguished American gynaecologist, Dr. Marion Sims, which occurred suddenly, from heart disease, at New York, on the 13th inst. Dr. Sims was born in South Carolina on January 25, 1813. He graduated at the South Carolina College in 1832, and studied medicine in Charleston and at the Jefferson Medical College, Philadelphia. He settled at Montgomery, Alabama, in 1836, and soon became widely known for his general surgical skill. It was not, however, until some years later that he turned his attention to the operation now associated with his name. In the year 1845 he also established a private hospital for the diseases of women, which he maintained for some years at his own expense. He was successful, after a protracted series of experiments, in substituting sutures of silver-wire for silken and other sutures in the treatment of vesico-vaginal fistula, and he afterwards extended the use of metallic sutures into every department of general surgery. In 1853, Dr. Marion Sims removed to New York, where, through his efforts, a large temporary, and subsequently a permanent, women's hospital was established under his charge. In 1861 and 1864 he visited Europe, and during the war of 1870 he organised in Paris the Anglo-American Ambulance. Dr. Sims was remarkable as an operator of wonderful dexterity and ingenuity; and these qualities, combined with faultless tact and a most fascinating manner, gained him a large and lucrative *clientèle*. Whether the operative procedures that he devised will do all that he expected from them, time and experience will show; at

present it is well known that they are viewed by many with very qualified admiration. But, be this as it may, there can be but one opinion as to the excellence of Dr. Sims' directions as to the details of manipulation and the other, collectively most important although individually insignificant, matters upon which the satisfactory performance of such operations depends.

#### A NEW THEORY OF SHOCK.

IN traumatic shock, stupor, collapse, apoplexy, syncope, etc., there is, according to Brown-Séquard, a nervous inhibition of the normal gaseous interchange of the tissues, so that venous blood becomes like arterial—deep red, rich in oxygen, and poor in carbonic acid. Any kind of injury to the nervous system, stimulation of the skin and mucous membranes, poisons (especially if sudden in their action), etc., produce this nervous inhibition. Asphyxia differs from this not only in the condition of the blood, but in the absence of convulsion, the blood-filling of the left heart, and the greater duration of the irritability of the nervous and muscular systems.

#### "SCARLATINOID."

IN his tenth annual report on the sanitary condition of the Combined Gloucestershire District for the year 1882, Dr. Francis Bond, the Medical Officer of Health for the district, explains at some length his reasons for classing the mortality from scarlatina, diphtheria, and croup under the head of scarlatinoid disease. It is not, he observes, that typical scarlatina and typical diphtheria are diseases which can be compounded with one another by any person who has once seen examples of them, but that there is so much practical confusion in the intermediate links by which these separable types are connected with one another, and in the tendency both of the profession and the public to call cases of severe sorethroat "diphtheria," though the scarlatinoid nature of such cases is often not difficult to recognise when searched for, that he sees no alternative but to group them under one head, believing them all to have a more or less intimate family relationship to one another in origin, pathology, and sanitary importance. In illustration, Dr. Bond quotes the case of an outbreak which took place at the close of last year, in the parish of Westbury-on-Severn, where upwards of forty children were suddenly smitten by an attack, the precise nature of which it was by no means easy to identify. The only invariable symptom was a more or less congested condition of the throat and tonsils, accompanied in several cases with localised ulcerations, and very rarely with anything like true diphtheritic exudation, though with occasional croupy tone of voice. Had he seen the latter samples of the affection alone, Dr. Bond would have classified them as croup; had he seen those only in which there was a tendency to exudative deposit on the tongue and fauces, he would have been inclined to admit the diagnosis of a medical friend who saw them with him, and who pronounced them diphtheritic. But the absence in the majority of the cases of the characteristic symptoms of specific diphtheria, the presence in the district of unquestionable scarlatina, the want of any conditions to explain an outbreak of specific diphtheria, and the existence about the same time of similar ambiguous cases of the same kind in other parts of the district, all pointed to the conclusion that this was an aberrant and ill-developed form of scarlatina, modified to some extent by obscure local or personal influences. Enlarged experience tends, Dr. Bond says, to confirm in his mind the belief that, though scarlatina generally originates from direct personal infection, and though typical diphtheria often has a purely local origin, these diseases are due to an



infection which in all cases attacks the throat, propagates itself mainly from the throat, and which may, in passing from one person to another, undergo such modifications as will give rise in one case to a characteristic outbreak of scarlatina, in another to an equally characteristic attack of diphtheria, and in a third to a mongrel type of affection which it is difficult to refer dogmatically to either of these diseases, or identify by any other name than bad sorethroat, and which is, in fact, a connecting link between them. Practically, the outcome of this view is, he thinks, to observe with the greatest suspicion any case of sorethroat, more especially in young persons, and to assume that it is scarlatinoid in nature unless good reason can be shown for regarding it otherwise.

THE Academy of Sciences of Paris have elected M. Charcot to the seat left vacant by the death of Baron Cloquet.

DR. QUAIN has been appointed, for a further term of five years, one of the Crown Members of the General Medical Council.

THE Autumn Congress and Sanitary Exhibition of the Sanitary Institute of Great Britain will be held in Dublin in the year 1884.

It has been finally resolved that the celebration of the tercentenary of the Edinburgh University shall take place on April 16, 17, and 18 next.

THE Library of the Royal College of Surgeons will be closed on Friday, the 16th, and Friday, the 23rd inst., for the purposes of the examinations.

A GERMAN translation of Dr. G. Harley's book on "Diseases of the Liver" has been published by Abel, of Leipzig, and has been well received by the German medical press.

THE General Board of Studies at Cambridge has recommended that a Professor of Pathology, with a stipend of £800 a year, should be appointed within the course of the next six months.

THE Professors of the Faculty of Medicine in Paris have submitted for the approval of the Minister of Public Instruction the name of M. Pajot to succeed M. Depaul in the Chair of Midwifery.

SURGEON-GENERAL HUNTER's third report on the recent epidemic of cholera in Egypt, which is looked forward to with so much interest, will in all probability be published in the course of next week.

THERE were 2497 births and 1556 deaths registered in London last week. Allowing for increase of population, the births were 290, and the deaths 175, below the average numbers in the corresponding week of the last ten years. The annual rate of mortality from all causes, which had been 19.1 and 19.0 per 1000 in the two preceding weeks, rose to 20.5.

A MOVEMENT has been on foot amongst his late pupils to present Dr. Alexander Macalister, late Professor of Anatomy at Trinity College, Dublin, with some slight evidence of their respect and esteem, and to take an early opportunity of expressing their sincere regret at the loss of his instruction. The movement originated spontaneously amongst the students, and so far a hearty enthusiasm has been shown in forwarding its purpose.

THE Council of the Royal Society have awarded a Royal Medal to Prof. J. S. Burdon-Sanderson, M.D., F.R.S., for the eminent services which he has rendered to physiology and pathology, especially for his investigation of the relations of micro-organisms to disease, and for his researches on the electric phenomena of plants.

FOOTBALL often contributes to the material of our hospitals. In Ireland apparently they make it contribute to their support. At the annual football match played at Dublin on Saturday last, sufficient gate-money was received to render possible an addition of over fifty guineas to the Hospital Sunday Fund after all expenses had been paid.

THE question of tubercular disease of the lung (especially with regard to heredity, contagiousness, and curability), and also of the relation of pneumonia to phthisis, is about to be presented to the Committee for Collective Investigation of Disease in Berlin. Two-and-twenty medical societies have put themselves in communication with the Committee, and a still greater number are expected to join with the numerous clinical teachers and hospital physicians who have already combined for the purpose.

OVER £400 has been collected for the Hutchinson Testimonial Fund. The subscribers (310 in number) are all, with the exception of six or seven, past or present London Hospital students, the testimonial being essentially a local one. A portion of the amount collected will be invested in the names of trustees for the foundation of a "Hutchinson Prize" for an essay on clinical surgery, to be awarded every three years to members of the Hospital of not more than ten years' standing. The surplus will be devoted to the purchase of a personal testimonial, which will be presented at the dinner on the 29th inst.

THE new Anatomical Department in connexion with the University of Würzburg was formally opened on the 3rd inst. Prof. Kölliker, the head of the Department, delivered an address in which he sketched the history of anatomical instruction in Würzburg. Dating originally from 1719, the Department was reorganised in 1788, when the famous surgeon von Siebold delivered the opening oration. The building in which instruction was given remained unaltered until within quite recent times, and many well-known men have been connected with it, of whom Virchow and Kölliker are the most famous. The increase in the number both of the students and of the branches of science taught therein had long rendered the construction of a new anatomical school a necessity, and at length a building has been obtained which answers in all respects to the increased demands of modern science.

THE *Athenæum* gives a list of the names, from Bee to Bes, to be inserted in the "Dictionary of National Biography." The list contains several names which are as household words to the medical profession. If any omission or error is noticed, the editor of the Dictionary will be glad if a notice to that effect is sent addressed to him at Messrs. Smith and Elder's, 15, Waterloo-place, S.W. The following selection from the full list includes all the names associated with medicine:—Begbie, James Warburton, M.D., physician, 1823-76; Belchier, John, F.R.S., surgeon, 1706-85; Bell, Benjamin, surgeon, 1749-1806; Bell, Sir Charles, anatomist, 1774-1842; Bell, James, physician, 1801; Bell, John, surgeon, of Edinburgh, 1762-1820; Bell, Lady, widow of Sir Charles Bell, 1786-1876; Bell, Sir Thomas, M.D., physician, of Dublin, 1789; Bell, Thomas, F.R.S., naturalist,



1792-1880; Bellinger, Francis, medical writer, 1721; Bellot, Thomas, M.R.C.S., philologist, 1857; Bennet, Christopher, M.D., physician, 1617-55; Bennett, John Hughes, M.D., medical writer, 1812-75; Bermingham, Michel, medical writer, fl. 1750; Bernard, Francis, M.D., physician to James II., 1697.

BEDSTONE HILL, on the Cheshire side of the Mersey, directly opposite Liverpool, is the only elevated spot crowned with heather, and not with houses, within many miles of Liverpool and Birkenhead. It has been a delightful and much frequented recreation-ground for the inhabitants of both these large cities; and great was the consternation when it was announced that Bedstone Hill was in the market, and likely soon to be in the hands of jerry builders. Every association in Liverpool and Birkenhead petitioned the Birkenhead Town Council to retain the hill as an open space, and at the last meeting of the Medical Institution the following resolution was carried, and forwarded to the Birkenhead authorities:—"That in the opinion of this meeting it is of primary importance to retain Bedstone Hill as an open space, . . . and the Corporation of Birkenhead is begged not to neglect the present opportunity of obtaining possession of that property."

## THE REPORT OF THE ARMY MEDICAL DEPARTMENT FOR 1881.

### [FIRST ARTICLE.]

THE Blue-book, generally known as the Army Medical Department Report, for the year 1881 has just been made public, and upon the present occasion will be found to possess rather more than the average amount of interest. Although the statistical portion is nearly two years old, the Appendix bound up with it contains, among other matter, the Medical History of last year's Egyptian War, by Sir John Hanbury, K.C.B., the Principal Medical Officer of the expedition; the Sanitary Report on the campaign, by Deputy Surgeon-General J. A. Marston, M.D.; and other interesting papers. The Report proper commences with the information that the average annual strength of the troops serving at home and abroad in 1881, as computed from the returns received by the Army Medical Department, was 173,331 non-commissioned officers and men, exclusive of colonial corps, which are not recruited at home. The admissions into hospital in this force were 198,274, and the deaths 2269. The rates represented by these numbers are, for admissions into hospital 1115.0, and for deaths 12.85 per 1000 of the average annual strength, the latter being calculated on a strength of 176,581, which includes detached men. Briefly glancing at the records tabulated for the different stations at home and abroad, it will be seen that during this year, in the United Kingdom, the returns of sickness and mortality amongst the troops were but slightly different from those for 1880; in fact, the Report says that, though the admission-rate was greater than the average of the ten preceding years by 71.5, the death-rate was less by 0.55 per 1000. The highest admission-rate occurred in the Eastern District, attributable, according to the report of Deputy Surgeon-General Holloway, to the fact that in the early months of the year there was a large proportion of admissions for chest affections, consequent upon the prolonged winter; the lowest rate was in the Chatham District. The highest death-rate was recorded in the Southern District, and the lowest in the Chatham District; whilst the rate of constantly sick was highest in the Southern District, and lowest in the Cork District. Amongst causes of sickness it had to be noted that scarlet fever showed an increase upon previous years, the number of cases having been 198 with 8 deaths; Aldershot alone had 69 admissions with 1 death: and the Principal Medical Officer there remarks that although this number exceeded the admissions for any

previous year since the camp was established, it cannot be accounted for on insanitary grounds, as the cases were of a sporadic nature, and no epidemic of the disease occurred among the civil population. The total number of admissions from primary syphilis was 8593, and for the secondary form 2603, equal to annual admission-rates of 101.4 and 30.7 per 1000 respectively, the former being 5.6 and the latter fractionally higher than these rates in the year 1880. It is certainly not satisfactory to have to note any increase of disease in this direction, but this practically unimportant rise in the rates during 1881 will be utterly forgotten when the history of the present year has to be written, and when the solid testimony of statistics will be found to have confirmed all that has been written and said against the folly of rendering nugatory the Contagious Diseases Acts. With respect to the returns received from the Mediterranean Stations, the Report remarks that the health of the troops stationed there during 1881 may be said to have been normal. Mediterranean fever prevailed more or less throughout the year, but more especially during the summer months, principally attacking young soldiers recently arrived at the stations. At Malta the admission-, death-, and invaliding-rates were all higher than in the previous year, and, in comparison with the average of ten years, the admission- and death-rates are in excess, but the invaliding-rate almost the same. During the autumn, dengue made its appearance in an epidemic form over the island, the naval and civil population suffering more severely than the military. It is presumed that the disease was imported from Egypt, where it had been prevalent over the whole country in the month of August. The returns from the West Indies show that yellow fever occurred in an epidemic form in the island of Barbadoes; sixty-six admissions and forty-one deaths are returned from it, giving admission- and death-rates per 1000 of 73.6 and 45.71 respectively. The disease appears to have been hanging about the island for some time, but it did not develop itself among the troops until the month of July; finally it was decided to remove all the European troops, and they were therefore embarked for England. A special report on this outbreak by Surgeon-Major Edmond Hoile, will be found in the Appendix at the end of the volume. The returns from other foreign stations are of the ordinary kind, and do not call for special notice. In conclusion it may be stated that this Report for the year 1881 fully maintains the character of its twenty-two predecessors; it contains an immense amount of information, which, if not of great interest to the general reader, will nevertheless be found invaluable for statistical purposes.

It is to the Appendix, however, that the medical reader will turn with most interest. This contains in all thirteen papers of various degrees of excellence. In three, Enteric Fever is discussed, particularly with regard to the existence of two types of the disease—notably in India, where one form is seen in young soldiers, which is not to be distinguished from the European enteric fever, while the other type is complicated with malaria, and observed in those who have been long resident in India. The doubtful question is also considered as to the identity of the Egyptian enteric fever with the Indian malarial form. Another paper which will attract attention is a report on the Pneumonia of the Punjab Frontier, which is described as a specific disease, quite different from the acute pneumonia of Europe, and easily capable of being communicated by infection. The paper is illustrated by no less than six plates and two temperature-charts, and deserves careful study. There is a report also on the outbreak of Yellow Fever at Barbadoes, which will repay perusal. In the Sanitary Report of the Egyptian Campaign the remarks upon ophthalmia are of great value, and we shall have a word to say about them in due time. At the present time, however, the most interesting paper in the Appendix is the Medical History of the War in Egypt in 1882, by Sir J. A. Hanbury, the Principal Medical Officer; but we must defer consideration of this till next week.

THE BRAIN OF TURGENIEFF.—The brain of the great Russian novelist is said to have weighed 2012 grammes. The average weight of the human brain is 1390 grammes. Turgénieff's is said to be the heaviest which has yet been weighed.



## VIRCHOW ON ENCEPHALITIS CONGENITA.

AN address on the subject of Congenital Encephalitis was delivered before a recent meeting of the Berliner Medizinische Gesellschaft by Prof. Rudolf Virchow, in which, recalling certain observations made by himself in the year 1865, he undertook to prove the inflammatory nature of certain changes in the brains of newly born children, which some subsequent observers have regarded as physiological, and not abnormal. These changes, as he at first observed them, consisted in the appearance of very numerous granular cells and granular globules, scattered chiefly in the white substance of the cerebral hemispheres, for the most part in very regular order throughout the whole area, while there was absolutely no change in the appearance of the grey matter. These observations were published eighteen years ago, and it was then suggested that the changes were inflammatory; they have been again and again observed by other pathologists, and their frequent occurrence has led to the opinion that they are normally produced in the development of the brain. The extent to which such changes are congenital, however, cannot be proved in every case. In the brain of a child born dead, no doubt can exist; but in the case of a child which may have lived only a few hours, doubts may very reasonably be entertained. With each day of life it becomes more and more uncertain how far the appearances may be regarded as congenital.

The elements thus found in the brain are quite unmistakable granular cells and granular globules. As long ago as 1846, Prof. Virchow drew out a classification of the various modes in which fatty changes may occur in cells. Three different forms were distinguished, and they have not since been added to. In the first the fat within the cell belongs properly to the character of the tissue of which it forms a part; in the second the appearance of fat-granules is always the forerunner of disintegration of the cell in which it appears; in the third the appearance of the fat is only transitory. From the form of fatty change alone, however, it cannot be determined whether the change is to be classed as physiological or pathological: other considerations must determine that point.

To which of these three classes of fatty change must the appearance in the newly born brain be attributed? To assume the first would be to allow the possibility of the occurrence of normal fatty tissue in the brain. Putting this aside, we must look either to the possibility of transitory absorption of fatty matter or to a process of fatty degeneration. As against the former must be placed the truly fatty nature of the change—the absorbed particles are not myelin—and the absence of any disintegrating points in the affected brains from which granular material could be taken up.

"I am convinced," says Prof. Virchow, "that this condition is a fatty metamorphosis in the strictest sense of the word, and for this reason: because all the transition stages, from the intact cell to the granular, from the granular to the globular, and at length to the simple masses of fat, are here present, just as we recognise them when occurring in the fatty metamorphosis of other organs. Besides the diffuse form, however, of which I have spoken, there is a second form appearing in a more or less nodular manner."

The latter is easily to be seen with the naked eye. "One notices in the midst of the white matter dull spots, which become more and more opaque, and after a time take on a faint yellowish-white appearance, and finally commence to soften at individual points, and to become true centres of disintegration. These centres are distinguished by a peculiar change of the axis-cylinder which they present, in addition to the excessive formation of granular cells and globules, which consists in a varicose swelling and subsequent falling apart of the divisions thus formed, so that one can demonstrate long, varicose, often spindle-shaped bodies between the fatty particles. If one now compares a sufficient number of these two categories of cases, the diffuse and the circumscribed, it becomes apparent that there is by no means an essential difference between them, but that the circumscribed form represents an exaggerated condition of the same process which is found diffused. In order to determine the relative frequency of the occur-

rence of these changes—the one point upon which the theory of their physiological nature has been based—Prof. Virchow has lately instituted a series of investigations of the brains of stillborn and newly born children, extending to 44 cases in all. Of these 22 were born dead, 5 died during birth, 17 lived for various periods up to five weeks; but of these most died during the first day. Twenty-seven were congenital in the strictest sense, and of these only 11 showed the appearances described, abundantly in 8 cases, and sparingly in 3. Of 9 immature embryos examined, only 3 failed to show the changes; of those born dead at full term, 9 showed no changes, and in only 3 were they present. From these purely objective investigations it follows that the appearances in the brain do not occur with such constancy as to warrant the belief that they can be of normal origin. Turning, now, to the examination of those cases in which death took place at varying periods after birth, only 3 cases out of 17 were found to be free from the condition. These three cases with normal brains were each distinguished by all the signs of inherent weakness; whilst at least eight of those with affected brains showed no predominant symptoms of feebleness whatever. From a careful consideration of all the cases, it appears clear that there is no ground for the supposition that this change in the brain is but a part of a general disturbance of nutrition.

"I should certainly be the last to deny that such a fatty metamorphosis may be the result of a bad state of nutrition, and if such a connexion could be established I should have nothing to urge against it in this case; but, nevertheless, I must always consider that it would be a disastrous state of affairs if general atrophy or want of proper nutrition were always to lead to this condition of brain. In all those cases in which, as far as I am aware, fat occurs as a consequence of bad conditions of nutrition, it appears to be universally attracted to the walls of the vessels in which at any period of age, as a result of impaired nutrition, such changes may occur in a very marked manner even to the smallest capillaries." The granular cells previously described, however, could be clearly demonstrated to have no connexion with vessels.

A challenge is thrown down to any workers in the same field of investigation to prove the association of these fatty metamorphoses with general conditions of impaired nutrition. Regarding these changes as indicative of encephalitis due to a condition of irritation, Prof. Virchow directs attention to an analogous change which is recognised in the tissues of the optic nerve in retinitis, in which granular globules appear in the interstitial tissue, and in which a varicose and gangliform alteration of the nerve-fibres is induced. Although the process in the brain cannot be said to be an inflammation in the strictest sense of the word, it is, nevertheless, an irritative process—i.e., a process in which the fatty metamorphosis is not immediately apparent, but in which a definite series of irritative changes lead to that result.

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EXTRAORDINARY SECRETION OF MILK.—Prof. C. Remy, in the *Archives Générales*, tells of a young woman seen by him in Japan, who gave over twelve pints and a half of milk daily; and the new *Journal of the American Medical Association* quotes the following case by Dr. Gomez Pamo, of Barcelona, in the *Anales de Cirurgia*:—"A woman married at sixteen years of age, and her menses (established at fourteen) continued without interruption until the first month of marriage, when she became pregnant. After delivery, lactation continued for twelve months without any appearance of the menses. Becoming again pregnant, she weaned her child; and this recurred fourteen times without any complication. She nursed each of her fourteen children up to the time that she found herself again pregnant. During her pregnancies the flow of milk diminished somewhat, but never disappeared entirely. Immediately after delivery she gave the breast to the infant. The milk was of good quality and abundant; and during all this time—that is, from the first month after marriage to the present time, seven years after the birth of the last child—the menses have not reappeared. She weaned her last child five years since, but the flow of milk has not diminished, in spite of all treatment. It is abundant and of good quality, and the breasts have to be drawn frequently to relieve the pain caused by tension.—*Louisville Med. News*, August 4.



## ABSTRACTS AND EXTRACTS.

**LOCAL APPLICATION OF VASELINE IN SCARLET FEVER.**—Dr. J. B. Johnson, of Washington, writing to the *Phil. Med. Reporter*, August 11, states:—"I have found nothing so efficient in relieving the burning and itching sensation of the eruption of scarlet fever as the inunction of the whole body with vaseline. It is well rubbed upon the surface of the body with the hand, once or twice a day, and continued as long as the patient complains of the burning and itching. These inunctions soothe and calm the patient in an astonishing manner, and are rarely required beyond two or three days."

**HYDRATED OXIDE OF IRON.**—Dr. Squibb recommends the following as a simple method of preparing hydrated oxide of iron, the antidote for arsenic, one of its chief advantages being that its ingredients are always easily obtained:—*R.* Tr. ferri chlor.  $\zeta$ iv., aquæ  $\zeta$ iv.; mix in a vessel of twelve-ounce capacity, and add aquæ ammon.  $\zeta$ ij. Shake well, pour on a large wet muslin drainer, wring out the water and alcohol, and wash with fresh water. The stomach having been evacuated by emetics while the antidote was preparing, give four fluid ounces at once, to be followed by an emetic. Then give two ounces every ten minutes.—*Louisville Med. News*, September 1.

**PHYSIOLOGICAL PRODUCTION OF PEPSIN.**—It is said that a prominent manufacturer of pepsin has applied to good advantage the well-known physiological fact that the emotions awakened by the contemplation of appetising food not only cause the saliva to flow, but also stimulate a secretion of gastric juice. Taking advantage of this fact, fasting pigs are turned into a pen, where a trough filled with hot mash is covered with a wire screen to prevent them from eating it, and thus absorbing the pepsin contained in their peptic glands. They are then in due time killed, and the yield of pepsin is said to be greater than when no such physiological procedure is resorted to.—*Boston Med. Jour.*, August 16.

**GLYCERINE IN FEVERS.**—Dr. Semnola recommends the following mixture as a good remedy in the denutrition of fever patients:—Pure glycerine thirty, citric acid two, and distilled water five hundred grammes; one or two table-spoonfuls every hour. Glycerine, which is an economising agent (*agent d'épargne*), and a succedaneum of cod-liver oil, may, according to Dr. Semnola, be employed with great advantage in the treatment of fevers of prolonged duration, such as typhoid, in order to diminish febrile consumption. Its employment is especially indicated when there is reason to fear that alcohol, used so much at the present time, may cause excitement of the nervous centres capable of aggravating the disease.—*Gazette Méd.*, September 16.

**LUPUS ERYTHEMATOSUS.**—At the meeting of the American Dermatological Association, Dr. Duhring recommended, in obstinate cases of this disease, a lotion of sulphate of zinc as very efficacious (zinc. sulphat., pot. sulphuret,  $\text{aa}$   $\zeta$ j., aquæ  $\zeta$ iv.).—Dr. Piffard, however, believed that a cure cannot be effected without destroying the lupus either by the curette or scarification.—Dr. Sherwell had used this remedy with advantage in a case; and Dr. Van Harlingen bore witness to its complete success in one of Dr. Duhring's cases.—Dr. Fox stated that he had used a combination of salicylic acid and chrysarobin with some success, but that he regarded as the best means the painting of the part with pure carbolic acid.

**SURGICAL CASES IN VIENNA.**—The surgery of Vienna differs widely from that of America. There is not nearly so much acute surgery, if I may be allowed the expression—that is, fractures, dislocations, and general mash-ups are not common. This is due partly to the fact that the railroads are better managed than with us; the staging and scaffolding around buildings much more securely erected; the buildings themselves more substantially built; and partly, perhaps, to the fact that the people themselves are naturally cautious, and that, as they are punished for being run over, they take pains to keep out of the way of vehicles. Tumours of all kinds, cancer and tuberculous disease of the bones, deformities, joint-diseases, and hernia are very common—Correspondent of *Maryland Med. Jour.*

**MAXIMUM DOSES.**—M. Pierre Vigier, the able pharmaceutical contributor to the *Gazette Hebdomadaire* (September 21), in reference to the question whether a table of maximum doses should be inserted in the French Codex, in imitation of most foreign pharmacopœias, states that this is highly objectionable, and he succeeded in persuading the ministerial committee, which was appointed to consider the matter, that it should not be carried out in the forthcoming edition. "Would it not," he asks, "be a dangerous arm in the hands of magistrates to supply them with a legal formulary in which a quantity is inscribed which can only be surpassed at our risk and peril? These doses may, moreover, undergo change with the progress of physiological discovery, and the tolerance of individuals. What is the amount of morphia at which we should stop? It is quite impossible to fix an unalterable basis for the administration of this drug. It is, however, needless to multiply examples in order to prove that while a table of maximum doses is indispensable in an ordinary formula (such as the successful one of Jeannel), it is entirely misplaced, and in certain cases might be dangerous, in an official formulary."

**THE ORIGIN OF VACCINE VIRUS.**—Dr. Warlomont, of Brussels, read, at a recent meeting of the Paris Académie de Médecine, a paper giving a detailed account of numerous experiments on cattle and horses (*Gazette Hebdomadaire*, October 26), and terminating with these conclusions:—1. Neither the equine or bovine species of animals, nor probably any other animal, can be regarded as vaccino-genous. Neither the horse nor the ox can generate originally (*de toutes pièces*) the one the horse-pock, and the other the cow-pock. Both, in order to furnish a crop of vaccinal matter, must first have received its seed. 2. The original seed of the vaccine virus, in its relations to the horse and to the ox, is nothing other than variola. Admitted into the organism of these animals, it undergoes therein an attenuation, whence results what it has been agreed upon to term vaccine virus. This attenuation is less in the horse than in the ox; and horse-pock is therefore less remote from variola than cow-pock. 4. The horse is a bad soil for the culture of the vaccine virus. Animal vaccination requires germs attenuated to a higher degree than those which can be derived from the organism of the horse. 5. The artificial variolic or vaccinal impregnation in the horse by means of inoculation or intracutaneous injection, seems to take place, as in the cow, without any external manifestation; and immunity should be the consequence of such impregnation.

**REFLEX AREA IN THE NOSE.**—Dr. John Mackenzie, of Baltimore, terminates (*American Journal of Medical Science* for July) a paper "On Nasal Cough, and the Existence of a Sensitive Reflex Area in the Nose," with these conclusions:—"1. That in the nose there exists a definite, well-defined sensitive area, whose stimulation, either through a local pathological process or through the action of an irritant introduced from without, is capable of producing an excitation, which finds its expression in a reflex act, or in a series of reflected phenomena. 2. This sensitive area corresponds, in all probability, with that portion of the nasal mucous membrane which covers the turbinated corpora cavernosa. 3. Reflex cough is produced only by stimulation of this area, and is only exceptionally evoked when the irritant is applied to other portions of the nasal mucous membrane. 4. All parts of this area are not equally capable of generating the reflex act, the most sensitive parts being probably represented by that portion of the membrane which clothes the posterior extremities of the inferior turbinated body, and that of the septum immediately opposite. 5. The tendency to reflex action varies in different individuals, and is probably dependent upon the varying degree of excitability of the erectile tissue. In some, the slightest touch is sufficient to excite it; in others, chronic hyperæmia or hypertrophy of the cavernous bodies seems to evoke it by constant irritation of the reflex centres, as occurs in similar conditions of other erectile organs—as, for example, the clitoris. 6. This exaggerated or disordered functional activity of the area may possibly throw some light on the physiological destiny of the erectile bodies. Among other properties which they possess, may they not act as sentinels to guard the lower air-passages and pharynx against the entrance of foreign bodies, noxious exhalations, and other injurious agents?"



## REVIEWS AND NOTICES OF BOOKS.

*Clinical Lectures on the Diseases of Women.* Delivered in St. Bartholomew's Hospital. By J. MATTHEWS DUNCAN, M.D., LL.D., F.R.S.E., President of the Obstetrical Society. Second Edition, much enlarged, with appendices. London: J. and A. Churchill. 1883. Pp. 443.

THE words "second edition," which appear on the title-page of this book, mean much more in this case than they usually do; for at least half of its bulk is entirely fresh matter, consisting of additional lectures which, since the publication of the first edition, have appeared in our columns. We need not, therefore, say much about that which our readers have already had before them. The work is not, and does not claim to be, either a treatise on gynecology, or a series of exhaustive monographs. It is merely a statement of the author's opinions and practice concerning a certain number of the morbid conditions met with in women. From the student's point of view we imagine that, besides its incompleteness, the respect in which the book may fail to exactly supply them with what they think they need, is in its wide divergence from some of the views which at present largely influence current teaching. Much that is presented to students with deliberate assertion and amplitude of detail Dr. Duncan only mentions to condemn as injurious nonsense. An idea of that which is distinctive in the tone and purport of the lectures may be given if they be described as the somewhat contemptuous and indignant protest of a scientific physician against that current pathology which attributes to the uterus the power of causing symptoms of the most diverse kind in the most distant parts, even without itself manifesting any striking change; which traces nearly all symptoms of pelvic disease to local changes which to the morbid anatomist seem unimportant, or the very existence of which is doubtful—such, for instance, as a patch of redness on the cervix, an assumed excess of cervical mucus, an imagined (but not demonstrated) stricture, or a trifling alteration in the shape or position of the uterus,—and which, in estimating the advantages of treatment, quite forgets the first maxim of caution to be observed: *post hoc non ergo propter hoc*. Dr. Duncan's writings are well known to be models of scientific precision in the use of language, and this work does not differ in this respect from his former ones. One aspect of Dr. Duncan's teaching, which will be quite novel to those whose conceptions of the subject are based only on the popular text-books, is the importance which he attaches to the variations of pressure within the abdomen; phenomena, such as the retention of mucus, clots, etc., or the sudden expulsion of similar matters, commonly described as the consequence of supposed strictures, or the effect of powerful uterine contraction, Dr. Duncan conceives to be dependent upon the state of the intra-abdominal pressure. Beyond, however, pointing out the existence of this force and its unquestionable effects, he does not instruct us concerning it; we are left still in the dark as to the conditions which regulate its action. Another subject, little mentioned in the gynecological literature of the present day, but to which Dr. Duncan frequently refers, is the polarity of the uterus, a property of that organ long ago described by Reil, and to which the attention of the profession has, within the last few years, been recalled by a paper from the pen of Dr. Champneys, published in the *Obstetrical Journal*. Dysmenorrhœa and vaginismus may be further instanced as subjects upon which Dr. Duncan's view is widely different from that commonly accepted, for in each of these conditions he regards local morbid conditions as playing a quite minor part, the disorder being essentially neurotic. His views upon displacements are well known, and they find emphatic expression in the work before us. "I dismiss," he says, "without discussion those extreme views, which, though prevalent, are not the less untenable and highly injurious. . . . Were such doctrines well founded, life for woman would not be worth having, for the position of no womb satisfies those who entertain them, and treatment has, as its ordinary consequences, failure and disappointment, and sometimes grave disaster. . . . Thousands of blooming, happy, fertile women have displacements. . . . Simple uncomplicated displacement is not disease." The lecture on pessaries is one of the least satisfactory in the book, for it deals almost entirely in nega-

tives. Everyone will agree that there are disadvantages which always attend pessaries, and that there are cases in which pessary treatment is undesirable. What the beginner wants to know is how and when pessaries ought to be used. Dr. Duncan only helps him here by describing one or two typical cases, but gives him no rules for guidance, either in identifying the case or selecting the pessary. The chief thing, indeed, that seems to us to be desired in these lectures, is some concession to the weaker readers; some explanation of the author's reasons for dissenting so strongly from many current opinions; some instruction in the practical application of the broad pathological generalisations and therapeutical precepts which the author so epigrammatically lays down. For the specialist they are of the greatest value—full of concentrated experience, and fertile in suggestion. But the student, or the less highly educated general practitioner, may fail to gain as much benefit as he would receive from a work written down to a lower level.

*De la Rachialgia.* Par ERNEST LEMOINE, Docteur en Médecine de la Faculté de Paris. 1883. Pp. 154.

IN preparing this book, Dr. Lemoine has evidently taken the trouble to read all that has been recently written on Backache, and to incorporate in it the results of his reading. He dwells on the frequency of the symptom as the reason for its being regarded commonly as of slight diagnostic value, and draws attention to the necessity of noting in all cases both the region and the area affected. While defining "backache" as including all cases in which pains are referred to the spinal column, or are to be regarded as having their seat in the dorsal region, he gives a very wide area for the origin of the pain, saying that it may arise from morbid conditions of the skin, muscles, bones, articulations, ligaments, as well as the meninges, the cord itself, or the nerves.

A book beginning in this way is obviously meant to be most exhaustive, but it has the disadvantage of being necessarily very discursive. Any and every disease in which there is the remotest suspicion of pain in the lumbar or dorsal region is sure to be dragged in.

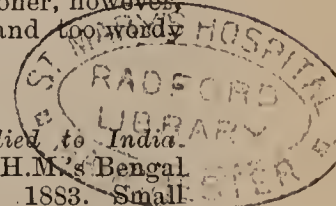
Dr. Lemoine's division of backache into sympathetic, symptomatic, idiopathic, rheumatic, and traumatic is sufficiently useful, but somewhat obvious. Examples of these various forms are then treated in detail, and go to make up the greater part of the book.

Although, as a whole, very pleasant reading on a somewhat neglected symptom, it appears to be made unnecessarily lengthy by the adoption of the historical method. For example, we find six whole pages devoted to the occurrence of this symptom in typhoid fever, and yet the whole might have been summed up, as in Murchison's classic on Continued Fevers, in four lines or even less, since, when all is said, it amounts only to this: "Pain in the back is usually slight, but in rare instances there is true rachialgia, cervical or dorsal" (Murchison). For most readers the two pages of conclusions at the end of the book will give all required for practical purposes. Here we find a table by means of which this symptom may be converted into one of true diagnostic value by careful attention to the precise seat of the pain.

Regarded purely as a general store of hitherto somewhat scattered literature, this book will no doubt prove of some use to future authors. For the busy practitioner, however, or for the medical student, it is too lengthy and too wordy to be of much service.

*Sanitary Principles, more especially as applied to India.* By Surgeon S. J. THOMSON, S.Sc. Camb., H.M.'s Bengal Medical Service. Calcutta: Brown and Co. 1883. Small 8vo, pp. 140.

THIS little book is addressed to non-scientific readers—i.e., to Europeans, other than medical officers—resident in India; and we can safely say that if every civilian, missionary, and planter were to use his influence in his own immediate vicinity in inculcating and carrying out its suggestions, the sanitary conditions of the native towns and villages would be improved to an extent that no legislation alone could achieve. It treats in a thoroughly practical way of the conservancy of native towns and villages, the disposal of sewage, the maintenance of the purity of water-sources, the burial of the dead, etc.—showing in the discussion of these





subjects a thorough acquaintance with the habits and prejudices of the natives, as well as with the *practicable* means for remedying the evils indicated. Purely scientific and medical questions are wisely avoided. We have been able to detect only one real error—the reliance placed by the author in the indications of the lactometer; but the accuracy of the opinions and statements generally is due to the fact that, with the exception of matters of an exclusively local character, they are copied, often *verbatim*, though without any acknowledgment, from the classical work of Dr. Parkes, which the compiler must have had open before him as he wrote. This is sufficient guarantee of the value of the matter, and evidence of the good sense, though not good taste, of Surgeon S. J. Thomson.

## GENERAL CORRESPONDENCE.

### CHOREIC COUGH.

[To the Editor of the Medical Times and Gazette.]

SIR,—Attention has recently been directed to what is called “laryngeal chorea.” The laryngeal muscles are commonly implicated in the disorderly movements of chorea which has attained any degree of development; and there is a well-known form of cough which is analogous in its nature and causation with the cough of this new, or rather newly described, disease—“laryngeal chorea.”

It is, however, with regard to another form of the same nerve-trouble that I ask your permission to offer a few remarks and suggestions. Young persons of either sex, but particularly the female, are very commonly affected between the ages of fifteen and twenty with a cough which is laryngeal, and characterised by a peculiarly metallic ring, either “cracked” or “whistling,” during the indraught, and often producing in the intervals of the paroxysm “hoarseness,” “squeaking,” or “loss” of voice. The fault is irritation of the recurrent laryngeal nerve, and it very often happens that the pneumogastric is also irritated to such an extent as to give rise sometimes to gastric disturbance, at others to faintness from slowing of the heart-beat, or “palpitation” from temporary suspension of the inhibitory control of the vagus. If the trouble ended with this it would be of minor importance; but the gastric or cardiac irritation set up, and the cough, together, besides giving rise to mistake as to the general condition of health, actually, as I believe, favour the occurrence of nutritive changes in the bronchial membrane and sub-mucous tissue, which induce a low inflammatory action, and issue in the exudation and deposit of tuberculous lymph. Hence we get the class of cases which are thought to have “nothing wrong with the lung” except bronchial irritation, but which too often end in rapid tuberculisation, phthisis, and death. They are, in truth, cases of “bronchial irritation”; but the irritated structure is the nerve, and consequently there is no natural limit to the disorder which may ensue. Practitioners who have much to do with the younger members of families will recognise the affection of which I speak.

Now, I believe there is only one method of treatment which is quickly and completely successful in putting an end to the morbid state of irritability whence arise all the phenomena that go to make up the misleading and mischievous affection of “pulmonary weakness” or “throat cough” as it occurs in the adolescent. It is not a pleasant remedy, nor, on the other hand, is it a very formidable one. It is briefly this: to paint over the course of the pneumogastric nerve, or (which is sufficiently near for the purpose) along the anterior margin of the sterno-cleido-mastoid muscle, a space extending from the level of the lowest margin of the lobe of the ear to the sterno-clavicular articulation, and about one-sixth of an inch in breadth, with liquor vesicatorius or glacial acetic acid. This should be done first on one side, and, when the blister has healed, on the other side, commencing with the side on which there may possibly be found some indications of what is fashionably called “lung weakness.” If the first application does not put an end to the cough, another should be made about a fortnight afterwards—the sides being blistered alternately, and the treatment continued until the symptoms entirely disappear, which will generally be within two, or at most three, months. No medicine need be given except, perhaps, small doses of cod-liver oil if there be any loss of flesh. In

this case the dose ought not to exceed one teaspoonful twice or thrice daily, being taken about two hours after a meal. I would strongly urge those who have to treat cases of the class to which I refer—namely, of choreic or “nervous” cough—to try the method described, which I believe to be in a signal degree effective. I am, &c.,

J. MORTIMER GRANVILLE.

16, Welbeck-street, Cavendish-square, W.

## REPORTS OF SOCIETIES.

### THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 9.

Sir ANDREW CLARK, Bart., President, in the Chair.

#### CASE OF WOUND OF THE PLANTAR ARCH—SECONDARY HÆMORRHAGE ON THE THIRTEENTH AND SIXTEENTH DAYS FOLLOWING THE INJURY.

MR. G. R. TURNER read the following case:—E. S., aged ten, a schoolboy, was admitted into the Seamen's Hospital, Greenwich, under the care of Mr. Turner, on April 16, 1883, with a punctured wound of the sole of the left foot, received from a glass cut two days previously. The patient was a healthy boy and had no hæmorrhagic diathesis. Bleeding from the wound was arrested by pressure for ten days. On the thirteenth day after the accident, hæmorrhage recurred; ether was administered, the wound enlarged and explored, but no wounded vessel could be found. The parts around by this time were sodden and rotten, so it was decided to ligate the posterior tibial artery, and, if necessary, the dorsalis pedis. On ligaturing the first vessel behind the inner malleolus, the hæmorrhage ceased only momentarily, so the dorsalis pedis was also secured. Chromic acid catgut was used as a ligature in both cases. Hæmorrhage returned on the sixteenth day, three days after the proceeding, and was finally arrested by sponge-pressure after the application of the actual cautery. Mr. Turner thought the case of interest as bearing on the question of treatment of these injuries. Should the vessel be secured at once, without taking heed of the injury done to the tendons of the foot and other structures of the sole, or was it right to first try the effect of pressure? Had the actual cautery failed eventually to arrest the bleeding, ligature of the femoral would perhaps have been indicated.

Mr. H. LEE, referring to a discussion at Liverpool on the same subject, pointed out that hitherto no positive guide to the treatment of wounds of the palmar or plantar arches was recognised. He related a case where ligature of the smaller, and then of the larger arterial trunks, had been unsuccessfully practised, rendering amputation necessary. This necessity he regarded as an opprobrium to the surgery of the present day. The employment of the actual cautery he considered a rational and simple procedure, provided that it were undertaken with due regard to the temperature of the iron employed. This should always be below that of boiling water. With such cauteries no eschar was formed, union by first intention was not interfered with, and the blood within the artery was usually coagulated for a space of two inches at least. Where the cautery had been thus properly applied he had never met with secondary hæmorrhage.

Mr. CHRISTOPHER HEATH asked for further details as to the dressing of the wound, the dates of the changes of the dressing, and the relation of the hæmorrhage to those changes.

At the request of the President,

Mr. TURNER stated that the wound two days after its infliction had been dressed with a pad of lint. This had been removed after a week in consequence of the state of the tissues beneath, and the hæmorrhage had followed its removal.

Mr. HEATH considered that the established faith in the efficacy of pressure could not be held to be shaken by this case. He advocated strongly the use of a graduated compress with firm bandaging, and elevation of the limb. He had never seen it fail if properly persevered with until commencing suppuration rendered a change of dressing necessary. Although not an enthusiast for the employment of the actual cautery, he agreed that the heat of the instrument



used must be moderate. For controlling large arteries he would be unwilling to trust to it, owing to the risk that must attend the earlier or later separation of the eschar. Ligature of the femoral artery for wound of the plantar arch he considered an unjustifiable proceeding.

Mr. HARRISON CRIPPS, while agreeing with Mr. Heath as to the efficacy of the ordinary treatment, pointed out that it must of necessity be modified according to the position of the wound. The preliminary enlargement of the wound would, in some situations, be undesirable. In such cases, pressure exercised upon the arteries where they become superficial about the ankle-joint might be successful in checking hæmorrhage. This treatment might be carried out by bandaging over small plugs of cork, etc. But in all the cases bandaging of the limb on a splint should be considered essential. He related cases where, after more heroic measures had been adopted, simple bandaging had ultimately checked the hæmorrhage.

Mr. BARKER inquired whether the wound had been kept thoroughly clean and aseptic.

Dr. GLOVER advocated the simple treatment, and related a successful case.

Mr. TURNER, in reply, stated that the tissues having become sodden and swollen, removal of the compress of lint had been necessary at the end of a week. His experience of cases of gangrene and tetanus as results of bandaging led him to regard the treatment with distrust. He explained that he had used the cautery in this case in the way recommended by Mr. Lee. The wound had at first been septic, but all subsequent treatment had been carried out under antiseptic precautions. Ligature of the femoral artery would only be undertaken as the very last resource.

#### CASE OF UNUNITED FRACTURE OF THE PATELLA TREATED BY SUTURE OF THE FRAGMENTS.

Mr. G. R. TURNER then read the following case:—H. St. C., aged thirty-nine, seaman, admitted into the Seamen's Hospital, Greenwich, in August, 1881, with an ununited fracture of the left patella of six months' standing. He had broken the bone first in 1859, and the fracture had been treated in the ordinary way. The uniting medium gradually stretched, and early in 1881 he fell on to the left knee, and felt the knee-cap give way between the pieces of bone. The fragments, on admission six months later at Greenwich, were two and a half to three inches apart. He was helpless, and could just hobble about with the aid of a stick. On October 26 ether was given, and the fragments exposed by a vertical incision. The lower one was small and comminuted. To drill it obliquely would not have been possible. Two wires were passed through the upper fragment and the larger of the two lower ones, the joint drained posteriorly on each side, after the manner described by Prof. Lister, and the limb placed on a posterior splint. Strict antiseptic precautions. The case at first did very well, the temperature on the 27th and 28th being normal; between 99.2° and 100.2° for the next three days. On November 1 the patient shivered, and his temperature rose to 102.8°—the highest point it attained. Freer exit was given to the discharges, and some pus evacuated. His temperature for the next fortnight ranged between 100° and 102° at night, falling to normal in the morning. There was some burrowing of matter in the ham. After November 21 the discharge lessened, and the wounds gradually healed. Stout wire removed on February 7; spray discontinued on February 20. No attempt at passive movement was made; the patient refused it, saying, "all he wanted was a stiff knee." He is now doing work as porter to the hospital. The patella, enlarged by new osseous deposit, can be moved laterally on the femoral condyles to a slight extent. The man is very active, though the knee is stiff. Although the case did not pursue an aseptic course, the antiseptic precautions largely influenced it for good. It seems to be a mistake to discard them if by any chance the wound becomes septic. The fever in this case was more like slightly exaggerated hectic fever as seen in a negro than anything else. The patient, once a helpless cripple, is now earning his livelihood as hospital porter, and is more than satisfied with the result himself. A *resumé* of fifty cases, the majority of them unpublished, was then read, and an analysis of them given, as follows:—

Hector Cameron: Old case, 1.—Thoroughly useful joint.

Lister: Recent cases, 5; old cases, 2.—All excellent

results. Six cases shown at the Medical Society, October 29, 1883.

Rose: Recent cases, 2; old case, 1.—The recent cases did well (published). Old case suppurated, and ankylosis ensued (not yet published).

Royes Bell: Recent case, 1; old cases, 3.—In the recent case suppuration and sloughing occurred; slight movement eventually. In one old case wire passed to inner side of patella. Good results, old cases (one case as yet published).

Pye: Old case, 1.—Suppuration and burrowing of matter in the thigh followed, with considerable constitutional disturbance; ankylosis ensued.

Jessop: Recent cases, 2.—Good movement in both cases. One case, a compound fracture, suppurated, and for a time there was considerable constitutional disturbance (for nine days). Eventually, after the exercise of passive motion for eight months, the patient recovered with a nearly perfect joint. In the simple case, which did well, no provision for the drainage of the joint was made. (Both cases published.)

Amphlett: Recent case, 1.—Ankylosis. It is doubtful whether suppuration occurred. The patient subsequently sustained a compound fracture of the united patella; and excision of the joint was performed by Mr. W. Thomson, of Dublin. (Published.)

Wheelhouse: Recent cases, 2.—Good movement in both. One a compound fracture. No provision for drainage of any kind in this case. Did perfectly well. (Published.)

Johnson Smith: Old cases, 3.—Suppuration and ankylosis ensued. In one case broncho-pneumonia caused by prolonged etherisation followed the operation. (Not yet published.)

Mansell-Moullin: Old case, 1.—In this case the operation was abandoned. After the fragments were wired it was found impossible to get them together. The patient did well, and was no better and no worse eventually.

Jordan Lloyd: Old case, 1.—Partial movement. The fragments could not be brought nearer than one inch from each other, even after the division of the quadriceps, ligamentum patellæ, and lateral incisions into the aponeuroses of the vasti. The wound for removing the wire suppurated without affecting the joint. (Published.)

Holmes: Old case, 1.—Suppuration and ankylosis. "A colleague who helped me in manipulating the wires had not previously washed his hands in the antiseptic fluid" (Mr. Holmes, *St. George's Hospital Reports*, vol. x., page 496).

Henry Smith: Old case, 1.—Use of lint. Recovering rapidly. (Published.)

Teale: Recent case, 1.—Good result. Slight impairment of the power of complete flexion. The lower fragment small; so it was found necessary to pass the sutures through the ligamentum patellæ into the cavity of the joint. (Published.)

Holderness: Old case, 1. Rushton Parker: Old case, 1.—Good results mentioned by Mr. Jordan Lloyd, in his paper in the *Birmingham Medical Review*, vol. xiii.

Howse: Old case, 4.—One patient operated on during the incubative period of syphilis. Ankylosis, without any previous suppuration, ensued. Perfect recovery in another case. A third case had but little movement, and the patella broke again whilst passive motion was being employed. Eventually the patient recovered, with "increased but not perfect movement." The fourth case is still under treatment, doing well. (Not yet published.)

Golding Bird: Recent case, 1.—Still under treatment; doing well. Silk used.

Oliver Pemberton: Old case, 1.—Fibrous union. Firmer at the end of three months. The patient was then going about with the knee in a case. (Not published.)

Sydney Jones: Old case, 1.—Partial movement. Returned to work before passive movement was employed. Suppuration occurred.

Turner: Old case, 1.—Suppuration and ankylosis. Lower fragment comminuted and small. Wires passed right through fragments. No passive movement.

Davies-Colley: Recent cases, 2.—One case a compound fracture; one wire passed right through both fragments. Fibrous ankylosis ensued, allowing slight movement of the joint. Passive movement not yet attempted. The other case resulted in fibrous union of the fragments with good movement. One wire was passed through the ligamentum patellæ. (Not published.)

Bloxam: Recent cases, 3.—Good movement. In one case there was a slight purulent discharge. No rise of temperature, however. (Not published.)



Wood: Old cases, 3.—In one, good movement (not published). In another, partial movement (not published). The third case died of pyæmia (not published). The risks of the operation were explained to the patient, who asked for it to be performed. The skin between the patellar fragments adherent to the femur. Operation tedious. Quadriceps and vasti divided before the fragments could be approximated. Did well for ten days or so. Was then attacked with a rigor, the joint suppurated, and the patient died about the third week. Metastatic abscesses present.

Bryant: Old case, 1.—Fragments separated by one inch and three-quarters; uniting medium thin. Operation performed January 20, 1882. The wound well washed with iodine water and dressed with terebene and oil; Leiter's metallic coil applied. Second day: Wound dressed, free from discharge; temperature 98.4°. Sixth day: Slight purulent discharge; temperature 100.4°. Ninth day: Wound healthy; temperature normal. February 15: Some burrowing about lines of suture; otherwise doing well. March 26: Sutures removed. April 29: Bavarian splint; very little movement of joint; good union of patella. November 2, 1883: Joint stiff, but very useful.

Muler, of Utrecht: Recent case, 1.—Good result. (*Lancet*, 1880.)

Sir W. Mac Cormac: Old case, 1.—The patient, a hard drinker, was the subject of an old ununited fracture of the patella, which rendered his limb useless and his life a burden to him. The fragments were separated by about three inches and three-quarters. It was at his own urgent request an operation was performed. Quadriceps had to be divided to approximate the fragments. The wound never did well, taking on an unhealthy action at once; the joint suppurated. Amputation of the thigh became necessary, after which the patient rapidly sank with acute septicæmia; liver and kidneys fatty. Previous to the operation all sorts of mechanical contrivances had been found useless.

The cases of Prof. Cooper, of San Francisco, are not included in the above.

The PRESIDENT congratulated Mr. Turner on his paper in very complimentary terms. He called attention to what seemed to him an omission, viz., the absence of any statistical comparison between the various methods of treating fracture of the patella.

Mr. TURNER explained that time had not allowed him to discuss that part of his subject.

In response to a call from the President,

Mr. LISTER observed that, having come to the meeting in trepidation, lest he should find that his teaching had, in other hands than his own, been attended with disastrous results, he was relieved to find that it was only in the cases of old ununited fracture that other than successful issues had resulted. The paper well illustrated the difficulties which these cases of long standing presented. Believing thoroughly that a time would come when recent fractures of the patella would be universally treated by suture, it must be no less clearly recognised that whatever form of antiseptic treatment is adopted, it must be carried through in an absolutely trustworthy manner, and entrusted to competent hands only. He considered that no man was justified in undertaking the operation unless he was either able to superintend the subsequent dressings himself, or to depute the superintendence to thoroughly competent men. Hence the importance of educating the younger men to observe the details of antiseptic surgery. He deprecated strongly the custom prevailing in some hospitals of employing only one house-surgeon to carry out the views and wishes of several surgeons. Owing to the far greater importance of the after-treatment of cases now than formerly, he suggested that London surgeons might advantageously follow the example of some foreign operators, and visit their hospitals every day. He related a case operated on a few hours previously, in which great difficulty had been met with, owing to the case having been neglected, and pathological changes having commenced in the fragments.

Mr. T. HOLMES drew attention to three important points with respect to the operation—first, its safety; second, its application to old and recent fractures respectively; third, its necessity. With respect to its safety, he quoted Prof. Lister's words that the operation is not justifiable unless the dressing be in competent hands. He himself operated in such cases with a considerable sense of risk, and doubted whether the procedure of opening the knee-joint and hand-

ling the structures exposed could ever be undertaken without risk. While the operation might be necessary in the old cases, completely crippled, it was clearly more difficult in itself, and attended with less satisfactory results. But in recent cases he did not consider it necessary. Was it so very desirable to obtain osseous union? Were the cases of fibrous union so very unsatisfactory? He had lately held a consultation with his colleagues as to the operative treatment of a recent case, and his own disinclination to operate had been fully endorsed by the patient, who exhibited on his other leg a fractured patella, healed with perfect success by the ordinary means, some years previously. Many cases thus treated were just as well after the fracture as before, and until such cases could be shown to be in a minority he did not consider the risk of operation justifiable.

Mr. CHRISTOPHER HEATH thought that if cases were more skilfully treated by the older methods there would be fewer cases available for the new operation. The notion that the quadriceps extensor caused the separation of the fragments by tension upon the upper was an altogether false one. The effusion of blood into the joint was the real cause, and he advocated the use of the aspirator to empty the joint when necessary. A plaster-of-Paris bandage applied at once, and worn for six weeks, followed by the use of a leather case for at least a twelvemonth, was almost always successful. He feared that the world-wide celebrity of Prof. Lister's cases, lately published, would lead to the loss of many knees, if not of many lives. In the ordinary practice of the country such precautions as Mr. Lister himself held to be essential could rarely be observed, even by the most carefully trained surgeons.

Mr. BRYANT communicated a series of old cases collected by Mr. J. Poland at Guy's Hospital, all of which had at some previous time been the subjects of fractured patella. From the details of these cases it appeared that in a large majority the patients had been as well able to follow their employment after as before the injury. He considered that with such experience as that, the risk attending the operation was not warranted.

Mr. BOWLBY referred to the treatment by division of the quadriceps tendon, and asked for information as to the result of such cases. He referred to a case in which, after division of the tendon, the muscle had wasted, and, although the patella had united by bony adhesion, the patient remained as lame as before.

Mr. ROYES BELL referred to some of the cases operated on by him, and gave details of some of the difficulties attending them.

Mr. NUNN believed that the cause of retraction of the upper fragment was to be found in the impaired nutrition of the quadriceps muscle during the period of complete rest, the muscle being slightly shortened. To obviate this he would advocate the frequent shampooing of the muscle as soon as the inflammatory mischief in the joint had subsided.

Mr. H. MORRIS referred to the good results obtained by Hawksley's apparatus, which, while maintaining support to the young cicatricial tissue, allowed of gradually increasing movement of the limb. Referring to some of Mr. Lister's results, he maintained that these would not have been considered satisfactory if they had been obtained by the ordinary methods of treatment.

Mr. LISTER explained that the cases referred to were none of them recent cases.

Mr. TURNER, in reply, expressed his agreement with Prof. Lister's views as to the treatment of recent cases.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 13.

JOHN MARSHALL, F.R.S., President, in the Chair.

### SPONTANEOUS INGUINAL ANEURYSM IN A BOY.

MR. R. W. PARKER read a paper on a case of spontaneous inguinal aneurysm in a boy aged twelve years and eight months, for which the external artery was tied; with notes of the other recorded cases of external aneurysm in young persons. Frederick L., aged twelve years and eight months, was admitted into the East London Hospital for Children with an



aneurysm in the left inguinal region, about the size of a pullet's egg. The boy first experienced a pain, while asleep in bed, three weeks before he came under the author's observation, after which the aneurysm gradually developed. He continued to attend school until within two weeks of his admission into hospital. There was extensive aortic disease. After ten days' rest in bed, the external iliac artery was tied under strict Listerian precautions: a carbolised silk ligature was used. The wound healed within about a week, and the aneurysm was cured. Thirty-four days after the operation, severe epistaxis occurred, and recurred, and the boy died of anæmia and exhaustion rather suddenly. At the autopsy, vegetations were found on the aortic valves, and the aortic orifice was narrowed. The heart was hypertrophied. The author then gave a summary of all the hitherto recorded cases of spontaneous external aneurysm in persons under twenty years. The table contained fifteen cases, including his own. It was shown that in no less than eight of the fifteen cases there was disease of the valves, in two cases only was the heart found healthy, while in the remaining five cases its condition was not stated. The association of vegetations on the valves and aneurysm has also been noticed in internal aneurysms. The views of various authors on the relation of embolism and aneurysm were quoted; the author, while agreeing that this must be more than mere coincidence, felt that the exact mode in which the aneurysm was brought about had not yet been satisfactorily demonstrated, and he invited discussion thereon. The object of the criticisms was to show that much remained to be made out even if the embolic doctrine were accepted.

The PRESIDENT, in inviting discussion, thought that the value of the paper was enhanced by being supplemented with a table and abstract of all the other recorded cases. The subject was one which required careful consideration. He would ask whether any history of rheumatism or of syphilis had been obtained, and what was the condition of the hip-joint, which was stated to be ankylosed. The mode of causation of aneurysm in these cases was obscure. He doubted whether there was any sufficient evidence on which to form an opinion.

Mr. HOLMES agreed in the main with the author's conclusions. He thought there must be some causal connexion between aneurysm and embolism in the case related. The purring sensation which was reported as present in the arteries of the limbs seemed confirmatory of this, although no embolic clot was actually found. One of the preparations on the table, borrowed from St. George's Hospital, showed an aneurysm of the ulnar artery. Mr. Pollock was called in consultation to see the case, and pronounced in favour of aneurysm. On account of the youth of the patient this opinion was overruled by his colleagues, who thought it was probably of a cancerous nature. In course of time the patient died, and then the true nature of the lesion—an aneurysm—was made out. There could be no doubt that in early youth aneurysms were connected with heart disease, and hence only two explanations seemed possible. Either they were the result of general disturbance of the circulation, in which case there would be a general fusiform dilatation of the vessels, which practically did not occur; or they must be caused by plugging of the vessels. The artery, being plugged, gave way a few hours or days later; this seemed in keeping with the dilatation above the seat of ligature which was found in a few cases. Such plugging could seldom be as sudden or as complete as that which followed a ligature; partial obstruction occurred first, and then became complete. Of course, when complete it more adequately explained the mode of formation of the dilatation. In individuals where the heart was diseased and hypertrophied the arteries also probably were more brittle than normal, even though changes could not be detected by the microscope; and this would explain the mode of production. He (Mr. Holmes) was profoundly convinced of the causal connexion, and he thought that anyone reading Mr. Tufnell's case would arrive at a similar conclusion. The fact that the boy had an ankylosed hip-joint, and was obliged to use a crutch, was an additional point of interest. It was possible that the force and weight of the body, being largely borne on the same limb as the aneurysm, had some causal connexion in its production. He agreed as to the necessity of defining what is, and what is not, a traumatic aneurysm, for it was probable that mechanical causes might sometimes be concerned

in spontaneous aneurysm, though vital causes were the initial changes on which the aneurysm depended. As regards the use of silk for purposes of ligature, if used with antiseptic precautions, it was no doubt a good material for the purpose, for it allowed an artery to be occluded without division of its external coat, thus reaching John Hunter's ideal. A drawback had, however, been pointed out either by Mr. MacCarthy or Mr. Treves, that the resulting obliteration was less complete than that obtained by older methods. He himself had recently shown a case of aneurysm, for which he had performed the distal operation. The operation had not run quite an aseptic course, and the result of the ligature was the production of a diaphragm across the lumen of the vessel; hence the circulation was not obstructed. This method was much less dangerous by the ligature not cutting its way out, but it was also less efficacious in arresting the circulation.

Mr. BARWELL said the paper contained many matters of great interest, which might all be made the subject of discussion, but, since the time of the Society was valuable, he would confine his remarks to one point only, viz., the relation of juvenile aneurysm to embolism. There was evidently some connexion between that form of endocarditis which is commonly called "wart" and aneurysm; and, indeed, he would concede without comment at the present moment that embolism of the thin-walled and unsupported cerebral arteries, and occasionally of some visceral arteries, was directly traceable to embolism, but he could not accept the theory that systemic aneurysms—those, for instance, of the limbs—were due to such a cause. The view which would attribute the arterial dilatation to the mechanical effect of a more or less suddenly arrested blood-current did not appear to him tenable. Large vessels were frequently occluded more completely and suddenly than an embolus could do; for instance, the aorta, the iliacs, femoral, or brachial. This was done either for the prevention of hæmorrhage during amputation, or for the cure of an aneurysm below the point of pressure. He was not aware that aneurysm ever followed such procedure, unless in a few cases when proximal compression of a diseased artery had been so injudiciously prolonged as to injure the coats of the vessel. Nor did deligation of an artery—an even more perfect occlusion—produce aneurysm save in a very few cases, and in them only because the internal and middle coats of the vessel had been divided by the ligature. The case of Mr. Tufnell, already quoted, did not prove that an embolism could produce an aneurysm—indeed, to his mind, it went rather to show the difficulty of any such event. In that case a man suffering from acute rheumatism suddenly developed a pulsating tumour in the popliteal space. This very rapidly subsided as the collaterals enlarged, and after death no aneurysm, but only a very slightly dilated artery plugged with fibrine, was found. A theory—due, he believed, to Dr. Goodhart—that the embolus detached from inflamed heart-valves may at its point of arrest in a systemic vessel induce softening of the valvular walls, rested, so far as he (Mr. Barwell) knew, only on the case published by him in the *Pathological Transactions*. The radial pulse of a rheumatic patient suddenly stopped, and after death the brachial artery was found considerably dilated and filled with a puruloid fluid; but this was not an aneurysm, and it was probable that, had the patient lived, this vessel would either have become completely occluded, or that when collateral circulation had relieved the blood-pressure it would have resumed its normal size and function. Neither in this case nor in the preparation of an ulnar aneurysm now on the table was there any proof that the condition was due to the impaction of an embolus; nor, as far as he knew, was there any reason to suppose that an embolus, or a wart concretion detached from a valve, could produce softening of the parts against which it came to lie. In the table of juvenile aneurysm, which contained fifteen cases, the condition of the heart was not noted in five; in two it was stated to be normal. Thus, in very nearly half the cases the aneurysm was not deducible from embolism, and in two was evidently independent of them; moreover, in a large proportion of the eight remaining cases, the cardiac affection was not noted as being wart. He thought that the malady, rheumatic or otherwise, which produced the heart disease, produced a condition of the arterial coats such as facilitated the production of aneurysm. In the case brought before the Society by Mr. Parker, the boy had a weak arterial system, as was evidenced by the epistaxis and



hæmatemesis; he also had a greatly hypertrophied heart—two conditions extremely apt to produce aneurysm. The particular place of its occurrence was, perhaps, determined by the fact that the right hip being ankylosed in a bent position, excessive work was thrown on the left limb, and at the moment of any effort the over-powerful heart would throw into the exerted limb a strong wave, quite sufficient to dilate, or perhaps rupture, some of the coats of a weakened vessel.

Dr. GOODHART said that, before taking up the question in the main, he would like to say a word upon a remark by Mr. Barwell, that as one reason against the embolic theory of these aneurysms, though infarctions occurred in the viscera, yet no aneurysms were found. This was of course explained by the fact that aneurysms did not occur in the solid viscera. It was from the necessity of our arterial system running unsupported that we were liable to aneurysm; and one of the best examples that could be given of this was the fact of pulmonary aneurysm, which was not liable to occur unless there was a cavity in the lung, when the wall of the artery, weakened on the side next the cavity, yielded, and an aneurysm resulted. As to the relation between aneurysm and embolism, he thought there could be no doubt that, as Mr. Holmes said, there must be some causal connexion between the two; and from what Mr. Parker said he gathered, not the same impression as Mr. Barwell, but that the result of his investigations was to lead him to the same conclusion. He really did not see that there was any room for doubt, and the strongest argument to be found in its favour lay in the disease as it occurred in the brain. Mr. Barwell objected that in Mr. Parker's case no embolism could be seen; but that seemed to him, with all deference to Mr. Barwell, to be no argument at all. Over and over again we met with conditions in the brain and elsewhere which were certainly due to embolism, but in which the actual plug could not be found. The other facts were all in favour. The aneurysms were more frequent in the brain than elsewhere, explicable naturally by the anatomical fact that the arteries were more of a size to catch emboli than the external vessels, which come under the surgeon's eye; and further, that most of those in the brain did occur on the branches of the middle cerebral artery, just where an embolus would be expected to lodge. The external aneurysms, however, did not support the same view. There were three or four cases of femoral or inguinal aneurysm, the fibres sticking on the fork, or rather the aneurysms being situated at the fork. He had himself elsewhere recorded a case of aneurysm situated at the bifurcation of the brachial; while seated near the patient, with his finger on the pulse, at the time, he had felt the pulse stop, and had demonstrated, after death, the plugging of the artery and the presence of the aneurysm. But as to the actual incidence of the embolism, how it caused aneurysm, Mr. Parker and Mr. Holmes agreed that there was still very much to be made out. He (Dr. Goodhart) had started a hypothesis for these cases, and was on that account, perhaps, biased in its favour. All that he had seen since making the suggestion some years ago, had but tended to confirm him in the notion that he was not far off a correct solution of the difficulties. The remarks that had been made to-night afforded him material for a very strong argument in favour of the view. In case after case, almost without an exception, these aneurysms occurred in the disease which has been called ulcerative endocarditis—but which he should prefer to call *fungating* endocarditis, for the disease was not always ulcerative. Very large vegetations seemed to be the most important element; but they were all of one class of cases, viz., excessive and severe endocarditis, such as was not met with in ordinary rheumatic disease. The aneurysms always occurred in these cases, and were not liable to result from simple embolism. If Mr. Parker could show him that any case had resulted from what he would call simple embolism, then he admitted a difficulty, because simple plugging was nearly parallel to ligature. Mr. Holmes's suggestion of the occurrence was that the aneurysm formed behind the clot because of this obstruction, under some circumstances; yet aneurysm was not a risk that the surgeon apprehended when he placed a ligature on the artery. Mr. Holmes said that aneurysm did occur occasionally under these circumstances; but he (the speaker) was disposed to think that this rare occurrence would, if investigated, support his view. He doubted whether this occurred much in late years, since suppuration was less extensive than formerly, and he believed that if such cases could be examined

they would be found to be cases of inflammatory softening of the coats at or above the ligature, and thus really evidence in favour of the process which he believed took place in these aneurysms from embolism. He thought that the clot in these cases was a virulent one, setting up much disturbance in the place in which it lodged, and thus an active inflammatory softening of the arterial coat resulted; and this, no doubt helped on by the other existing conditions of a large heart and bad kidneys, which were often co-existent with the fungating endocarditis, determined the formation of aneurysm. There were many other points he would wish to have taken up as adding to the strength of his position. When aneurysm occurred in a young person, or whenever it occurred in association with heart disease, we knew of a surety that we were dealing with the worst form of disease of the valves, and that a fatal result was only too likely to ensue before long. It was not every case of fungating endocarditis that died, but many did. Each case must, of course, be treated on its merits; but he asked whether in any case it would be worth while to attempt to cure an aneurysm by subjecting the patient to an operation when death was within a three or four weeks' view.

Mr. ARTHUR BARKER remarked that one point connected with the case just recorded seemed to have fallen into the background during the interesting discussion as to the causation of spontaneous aneurysms, which nevertheless seemed to be one of some importance, and that was, the material used for ligature of the vessel. It was worthy of note that this was one of the few cases recorded in which carbolised silk, employed with the completest antiseptic precautions, had been applied to an artery in its continuity, cut short, and left in the tissues. Another case had been reported by Mr. Heath in the *Transactions* of the Society, and those who examined the preparations exhibited would, the speaker thought, be able to convince themselves of the satisfactory condition of parts at the point of ligation. In neither of these cases was there the mere thin diaphragm either perfect or still pervious at the point of occlusion, alluded to by Mr. Holmes as having been found in those cases in which carbolised catgut had been used, but the vessel was soundly closed, and surrounded by a firm material in which the silk was embedded, itself too producing an extra barrier. As one who employed catgut largely—of course operating always with all antiseptic precautions,—but who had also used carbolised silk with the same precautions in almost every part of the body, it appeared to him that, as the latter substance showed itself perfectly innocuous in the tissues when introduced in this way, it might turn out to be the most desirable material for ligature of arteries in their continuity, if not for general use. The speaker had watched cases for years where it had been employed, and as the wounds had been absolutely aseptic to begin with, the silk had never made its appearance. Ovariologists were offering an accumulating mass of evidence upon this point every day, and as long as there was any uncertainty about the preparation of carbolised catgut (and who was there who would not admit this uncertainty?), silk might be employed with the greatest confidence not only that its knot would hold, but that, introduced in a state of perfect asepticity into a wound, it would remain quiescent. It was easier to tie, and more easily procurable all the world over than catgut, although the latter was undoubtedly valuable in many ways. Mr. Barker had tied the femoral artery some months ago with carbolised silk under Listerian treatment for the cure of popliteal aneurysm, and there had been no sign of the ligature since.

Mr. BERKELEY HILL reminded Mr. Barker that a considerable amount of exudation had been found around the ligature in Mr. Heath's case; and Mr. Horseley, who had made the microscopic preparation, was inclined to regard it as of an inflammatory and irritative nature. It would seem, therefore, that carbolised silk was not quite so innocuous as was generally believed.

Mr. BARKER, in reply, said he was quite familiar with these appearances just described by Mr. Hill; but thought that they only showed the remains of exudation undergoing organisation into fibrous tissue, but not such degenerative changes as would justify one in speaking either of a trace of pus-formation or even caseation. The part, in fact, was firmly and safely consolidated.

The PRESIDENT remarked that we were rather too apt to



think that there was only one cause for any given lesion. It was probable, however, that there was more than one. In some cases an embolism might be present; in others it might be absent. The discussion seemed to show that in the case related there was probably a combination of causes. In physical science, phenomena were brought about by definite causes; but in dealing with organic bodies we found that similar effects could result from many different causes.

Mr. PARKER briefly replied. In answer to the President's question, he stated that he had failed to get any history of rheumatism or of syphilis. On examining the diseased hip-joint after death, there was some inspissated caseous pus, which suggested a strumous form of disease rather than a rheumatic one. He thanked Mr. Holmes for his remarks, and acknowledged his indebtedness to his (Mr. Holmes's) essay on aneurysm, from which he had several times quoted. In Mr. Tufnell's case, alluded to both by Mr. Holmes and Mr. Barwell, at the time of death there was no actual aneurysm, only dilatation of the artery, while lower down there was obliterative arteritis.

Specimens from the museums of Guy's, St. Bartholomew's, and St. George's Hospitals, and the author's case (now in the College of Surgeons), were exhibited.

The Society then adjourned.

## MEDICAL NEWS.

**UNIVERSITY OF EDINBURGH.—FIRST PROFESSIONAL MEDICAL EXAMINATION.**—The following gentlemen have passed their First Professional Examination:—

John S. Bell, C. N. Bensley, E. G. Blanc, A. E. Booth, Alfred Bourdaile, N. L. Boxill, Daniel Brown, T. H. Bryce, F. J. Butt, C. L. Williams, E. W. W. Carlier, E. C. Carter, J. T. Chamberlain, F. H. Clarke, Arthur Clarkson, J. H. Conyers, R. J. Copeland, A. J. W. Dalzell, E. C. S. Daniel, E. N. Darwent, D. N. P. Datta, Walter Denby, W. C. Drew, E. W. Skinner, J. C. Dunlop, Alexander Edington, W. J. Fairlie, J. Edmondson, M. Farquharson, Oliver Field, J. G. Fletcher, N. S. Fraser, A. H. Frere, Thomas Galbraith, John Galletly, and L. D. Gamble.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.**—The following gentlemen passed their First Professional Examination during the October sittings of the examiners:—

Richard Basil Morley, Leeds; Joseph George Garibaldi Corkhill, Liverpool; William Ketson Clayton, Leeds; Allen Adair Dighton, Gloucester; Alexander McKerlie, Glasgow; Percy Henry Septimus Mellish, Sandgate; Michael Henry Taylor, Dublin; Thaddeus Cachick Avetoom, Calcutta; William Haines, County Cork; Charles William Reilly, Nenagh; William Henry Roberts, Dublin; Thomas Weir, Lanarkshire; Henry Patrick Garvey, County Mayo; James Knight Coutts, London; William James Van der Vyver, South Africa; Plomer William Young, County Cork.

The following gentlemen passed their Final Examination and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

John Williams, Anglesea; Asutosh Mitra, Calcutta; Thomas Evans Franklin, Carlou; Robert Martin Fleming, Suffolk; George James Waters Garnham, Derbyshire; John Charles Harris, Plymouth; Alfred Bourne, County Durham; Benjamin Marshall, County Tyrone; Edmond Walsh, Castleterry; John Francis Ryan, County Galway; Evans Jones, Cardiganshire; George Brown, County Tipperary; John Albert Maddox, Madras; Richard Basil Morley, Leeds; John Hardman Cropper, Lancashire; Edmund Kemp Bourne, Lichfield; Robert Ambrose, Newcastle West; William Francis Miller, Sydney, N.S.W.; Thomas Joseph Patrick Hartigan, Aldershot; John Mullin, Clarinbridge; Ralph Bennett Sidebottom, Mottram; Ernest William Haydon, Dorsetshire; James Edward Sinclair, Edinburgh; James Malcolm McKee, India; Arthur John Clayton, Leeds; James Hogg, Lanarkshire; Mudalitamby Eleyatamby, Ceylon; John William Pedroza, Madras.

**ROYAL COLLEGE OF SURGEONS, EDINBURGH.**—During the October sittings of the examiners the following gentlemen passed their First Professional Examination:—

James Angus Haggart, Malta; Robert Napier Buist, India.

The following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

William Arthur Shufelt, Knowlton; Edwin Charles Warren, Hampshire; Thomas Decimus Richards, Cornwall; Harry Graham Smith, Edinburgh; Donald MacGregor, Inverness.

At the examination in Dental Surgery, the following gentleman passed his First Professional Examination:—

Ernest Frank Cox, Gloucestershire.

The following gentlemen passed their Final Examination, and were admitted Licentiates in Dental Surgery:—

Edward Percy May, London; John Wood, Dalbeattie; Ernest Frank Cox, Gloucestershire.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed their Primary Examinations in

Anatomy and Physiology at a meeting of the Board of Examiners on the 8th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Adye, W. J. A., student of St. Thomas's Hospital.  
Barr, G. A., of St. George's Hospital.  
Clarke, G. S., of St. George's Hospital.  
Cosens, W. B., of the London Hospital.  
Dwyer, H. de B., of St. George's Hospital.  
Ewens, G. F. W., of King's College Hospital.  
Ford, T. A. V., of St. Thomas's Hospital.  
Owen, A. D., of the London Hospital.  
Potts, F. R. H., of Guy's Hospital.  
Shadwell, B., of St. Bartholomew's Hospital.  
Shopoff, P. I., of St. Mary's Hospital.  
Sparrow, J. E. P., of King's College Hospital.  
Stacey, J. H., of St. Thomas's Hospital.  
Wakeham, C. H., of the London Hospital.  
Ward, S. E., of St. Bartholomew's Hospital.  
Williams, G. R., of St. Bartholomew's Hospital.

Six candidates were referred for three months. Of the ninety-four candidates who presented themselves for the Primary Examination, twenty-eight, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, and three for six months. At the corresponding period last year there were ninety candidates; sixty-seven passed, twenty-two were referred for three months, and one for six months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 12th inst., viz.:—

Alexander, T. G., M.B. Glasg., Glasgow, student of the University of Glasgow.  
Barry, F. D. C., L.K. & Q.C.P. Ire., Liverpool, of the Liverpool School.  
Blower, B., L.R.C.P. Lond., Liverpool, of the Liverpool School.  
Carden, G. S., M.B. Edin., Bath, of the University of Edinburgh.  
Davies, H. A. B., L.R.C.P. Edin., Swansea, of Guy's Hospital.  
Ellis, S., L.S.A., Arundel, of King's College Hospital.  
Faulkner, H., L.R.C.P. Edin., Teddington, of University College Hospital.  
Fenwick, H. M., L.R.C.P. Edin., Newcastle, of the Newcastle-on-Tyne School.  
Giddings, R. R., M.B. Edin., Edinburgh, of the University of Edinburgh.  
Gilbertson, J. H., Hertford, of St. Bartholomew's Hospital.  
Hunt, A. H., L.S.A., Birmingham, of the Birmingham School.  
Hutchinson, J. A., M.B. Durh., Stockton-on-Tees, of the Newcastle-on-Tyne School.  
Johnston, M., L.R.C.P. Edin., Bedford, of St. Bartholomew's Hospital.  
Lawrence, S. E., L.R.C.P. Lond., of the Bournemouth School.  
Lockwood, H., L.S.A., Sheffield, of King's College Hospital.  
Macfadyen, A., M.B. Edin., Portobello, N.B., of the University of Edinburgh.  
Manders, N., L.R.C.P. Lond., Marlborough, of St. Mary's Hospital.  
Ranson, W. E., L.S.A., Stafford, of the Birmingham School.  
Reid, G. M., M.D. Edin., Melbourne, of the University of Edinburgh.  
Stafford, W., M.B. Glasg., Glasgow, of the University of Glasgow.  
Whyte, J. M., M.B. Edin., Nairn, N.B., of the University of Edinburgh.  
Wigmore, F. H., L.S.A., Ecclestone-street, S.W., of St. Bartholomew's Hospital.  
Wilson, J. G., L.S.A., Monmouth, of St. Bartholomew's Hospital.

One gentleman was approved in Surgery, and when qualified in Medicine will be admitted a Member of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, including one who had an additional three months. The following gentlemen passed on the 13th inst., viz.:—

Blaxland, W., L.R.C.P. Lond., Sydney, N.S.W., student of the London Hospital.  
Brown, J. H., M.B. Edin., Whitby, of the Edinburgh School.  
Cotton, J. M., M.B. Toronto, Toronto, of the Toronto School.  
Edmunds, D. P., L.R.C.P. Edin., Cranbrook, Kent, of Guy's Hospital.  
Graham, G. H., L.S.A., Anerley, S.E., of Guy's Hospital.  
Hooper, H. W., L.R.C.P. Lond., Sevenoaks, of St. Bartholomew's Hospital.  
Moor, H. W., L.R.C.P. Edin., Brighton, of Guy's Hospital.  
Mukerji, U. N., M.B. Edin., Calcutta, of the Edinburgh School.  
Rook, A. E., L.R.C.P. Lond., Forest Hill, of the Middlesex Hospital.  
Smith, M., L.R.C.P. Edin., Weston-super-Mare, of St. Bartholomew's Hospital.  
Steedman, J. F., L.S.A., Wellington, Salop, of St. Bartholomew's Hospital.  
Tomson, W. B., M.B. Durh., Luton, Beds, of St. Thomas's Hospital.  
Turner, N. H., Redcliffe-gardens, of King's College Hospital.  
Vassie, R., M.B. Edin., Lanark, of the Edinburgh School.  
Williams, M. H., L.S.A., Tunbridge Wells, of the Middlesex Hospital.  
Wood, J. W. A., L.R.C.P. Edin., Manchester, of the Manchester School.

Seven gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies—seven for six, two for three, and one for nine months. The following gentlemen passed on the 14th inst., viz.:—

Carmichael, W., B.A. Lond., Manchester, student of the Manchester School.  
Crawshaw, S., Wigan, of the Manchester School.  
Edsall, S. B. A., Brixton-road, of Guy's Hospital.



Jefferis, J. E., Sydney, N.S.W., student of University College Hospital.  
 Salvage, J. V., Lower Norwood, of Guy's Hospital.  
 Stevens, P. R., Biggleswade, of St. George's Hospital.  
 Swain, J., Melbourne-square, S.W., of the Westminster Hospital.  
 Syreé, A. H., Canterbury, of King's College Hospital.  
 Townsend, S. A., Burleigh-street, of St. Bartholomew's Hospital.  
 Walker, C. P., Blackheath, of Guy's Hospital.

Eight candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members, viz.:—

Greenwood, C. D., L.S.A., Clapham, student of King's College Hospital.  
 Howard, W., L.R.C.P. Edin., Littlepool, of Guy's Hospital.  
 Irving, D. B., L.R.C.P. Lond., Lockerbie, N.B., of St. Thomas's Hospital.  
 Knaggs, R. L., L.R.C.P. Lond., Putney, of Guy's Hospital.  
 Leaver, C. B., L.R.C.P. Lond., Bayswater, of St. Bartholomew's Hospital.  
 Milner, S. G., L.R.C.P. Edin., Dulwich Wood, of St. Bartholomew's Hospital.  
 Naylor, J. H., L.R.C.P. Edin., Drighlington, of the Leeds School.  
 Nunnerley, P. J., L.R.C.P. Lond., Powis-street, W., of University College Hospital.

Three candidates passed in Surgery; ten were referred for six months, and three for three months.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 8:—

Ellis, Sidney, Brecknock-road, N.W.  
 Hasell, Edward Suter, Spring Grove, Isleworth.  
 Long, John William Francis, Stamford-street, S.E.  
 Mackay, Henry, Normanton-road, Derby.

#### APPOINTMENTS.

BENSON, ARTHUR, M.B., F.R.C.S.I.—Ophthalmologist to the City of Dublin Hospital, *vice* the late Dr. Loftie Stoney.  
 DUNCAN, W. A., M.D., M.R.C.P. Lond., F.R.C.S.—Obstetric Physician to the Royal Hospital for Children and Women, Waterloo-bridge-road, S.E.  
 MACIVER, FRANCIS A., M.B., C.M.—Medical Officer to the Edinburgh Provident Dispensary.  
 MALCOLM, W. A., M.B. Edin.—House-Surgeon to the Ayr County Hospital, *vice* C. C. Scott, M.B. Edin., resigned.  
 POINTON, JAMES, L.R.C.P. Lond., M.R.C.S.—Honorary Medical Officer to the North Dispensary, Liverpool.  
 RICHARDSON, H. E., L.R.C.P., L.R.C.S.—Junior House-Surgeon to the Borough Hospital, Birkenhead, *vice* Charles S. Brewer, L.R.C.P., etc., resigned.  
 TURNER, NATHANIEL HENRY, M.R.C.S.E.—Ophthalmic Clinical Assistant to King's College Hospital.  
 TROUP, FRANCIS, M.D. St. And., L.R.C.S. Edin.—Medical Officer to the Edinburgh Provident Dispensary.

#### MARRIAGES.

TIBBITS—RUSSELL.—BOWMAN—DOWELL.—On November 10, at St. George's, Hanover-square, by the Rev. W. H. L. Gilbert, M.A., assisted by the Rev. E. Capel-Cure, M.A., rector of St. George's, Herbert Tibbits, M.D., F.R.C.P.E., of Wimpole-street and Highgate, to Arabella, widow of the late Aubrey Russell, and eldest daughter of Charles Dowell; and at the same time and place, William Bowman, of Lea-road, Blackheath, and Cullum-street, City, to Florence Louisa, youngest daughter of the above-named Charles Dowell. (Indian and West Indian papers please copy.)

#### DEATHS.

BROWN, CHARLES ROBERT, M.D., at 3, Hartfield-terrace, Eastbourne, on November 10, aged 37.  
 HEWSON, JOHN DALE, M.D., at Coton Hill, Stafford, on November 10, aged 66.  
 KAIN, WILLIAM, M.A., L.R.C.P., at Kingston-on-Thames, on November 4, aged 72.  
 ORME, CAMPBELL, M.R.C.S., of Bedford Park, London, on board Royal Mail ss. *Minho*, off Rio, on October 7, aged 41.  
 SCATLUFF, JOHN PARR, M.D., M.R.C.S., formerly of Sloane-street, at Macaulay House, Clapham, on November 6.  
 SIMS, J. MARION, M.D., at New York, on November 13.

#### VACANCIES.

COMBE HOSPITAL, DUBLIN.—Master. Applications to be forwarded on or before December 13.  
 GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. (For particulars see Advertisement.)  
 GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—House-Surgeon. (For particulars see Advertisement.)  
 HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Surgeon. (For particulars see Advertisement.)  
 LONDON LOCK HOSPITAL AND ASYLUM, WESTBOURNE-GREEN, HARROW-ROAD, W.—House-Surgeon in the Female Department. Salary £100 per annum. Applications, with testimonials, to be sent to the Secretary by November 24.  
 TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary £71 per annum, with board and lodging. Candidates must be registered as possessing both medical and surgical qualifications, and be unmarried. Testimonials of moral character and professional ability to be sent to the Secretary on or before November 20.

QUEEN'S HOSPITAL, BIRMINGHAM.—Honorary Physician. Candidates must be graduates in medicine of a University, and be Fellows or Members of the Royal College of Physicians of London, or Fellows of the King and Queen's College of Physicians, Ireland, or Fellows of the Royal College of Physicians, Edinburgh. The successful candidate is prohibited from engaging in the practice of midwifery, pharmacy, or surgery after his appointment. Applications, testimonials, and certificate of registration to be sent under cover to the Secretary (from whom all further information may be obtained) on or before Nov. 26.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. (For particulars see Advertisement.)

#### UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

##### RESIGNATIONS.

Aysgarth Union.—Dr. James Ross has resigned the Higher District: area 50,064; population 3196; salary £40 per annum.

Chapel-en-le-Frith Union.—Mr. Frederick Stedman has resigned the Castleton District: area 39,231; population 2463; salary £25 per annum.

Redruth Union.—The office of Medical Officer for the Redruth District is vacant by the death of Mr. R. S. Hudson: area 4006; population 9335; salary £40 per annum.

Sedburgh Union.—Mr. Robert Nunan has resigned the Dent District: area 19,603; population 1209; salary £20 per annum.

Wangford Union.—The Bungay District is vacant by the death of Mr. Joshua King Womersley: area 15,334; population 5852; salary £90 per annum.

##### APPOINTMENTS.

Atcham Union.—Thomas C. Lawson, M.R.C.S. Eng., L.S.A., to the Alberbury District.

Bedminster Union.—William R. Edmond, M.R.C.S. Eng., L.R.C.P. Edin., M.B. and M.C. Edin., to the Fourth District.

Bridport Union.—William H. Kerbey, M.R.C.S., L.S.A., to the Fifth District.

Denbigh.—William F. Lowe, F.C.S., as second Analyst for the county.

Ellesmere Union.—Cecil A. Corke, F.F.P. & S. Glasg., L.R.C.P. Edin., L.S.A. Lond., to the Middle District.

Faversham Union.—Charles Donkin, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Third District.

Hemel Hempstead Union.—George F. Phillpot, M.R.C.S. Eng., L.R.C.P. Edin., to the Boxmoor District.

Middlesbrough Union.—Samuel Bateman, M.D. and M.C. Queen's Univ. Ire., to the First District.

**ADMIRALTY APPOINTMENTS.**—The following appointments were made at the Admiralty on Saturday:—Gerald Molloy, Fleet-Surgeon, to Malta Dockyard, *vice* Lawrenson, deceased; Maxwell Rodgers, M.D., Fleet-Surgeon, to the Plymouth Division, Royal Marines; Stephen Sweetnam, Fleet-Surgeon, to the *Monarch*, *vice* Rodgers; George H. Madeley, Staff-Surgeon, to the *Defence*, *vice* Sweetnam.

**A NEW CONJOINT EXAMINATION SCHEME FOR IRELAND.**—At the last meeting of the President and Council of the Royal College of Surgeons in Ireland, the following resolution was adopted, viz.:—"Resolved, that with a view of reopening the negotiations for the giving of a double qualification by the Colleges, a Committee be appointed to confer with the King and Queen's College of Physicians on this subject, and to report to the Council as to the terms upon which this can be carried out. The Committee to consist of the President, Vice-President, Secretary of the College, and Drs. Kidd, Barton, Wharton, and Corley." The College of Physicians were to meet to consider the question this week.

**HOSPITAL MANAGEMENT.**—The third meeting of the Committee appointed at the recent Hospital Conference was held on Wednesday, the 7th inst. The draft constitution of the proposed Hospitals Association was provisionally adopted, and it was ordered that copies should be issued at once for the consideration of the governing bodies, committees of management, medical boards, and honorary medical officers of the principal hospitals. The objects of the proposed Association are to be—first, to facilitate the consideration and discussion of matters connected with hospital management, and, where advisable, to take measures to further the decisions arrived at; and, secondly, to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical. The Association, moreover, proposes to afford facilities for the reading, discussion, and publication of approved papers, for the delivery of lectures, and for the holding of conferences on hospital administration, hospital management, medical relief, medical education in relation to hospitals, free and provident dispensaries and other kindred subjects; and will found a library, consisting of works on hospital administration, finance, and statistics. The Committee will be called together again in December to finally adopt the constitution of the new Association, which has already received wide and influential support.



VITAL STATISTICS OF LONDON.

Week ending Saturday, November 10, 1883.

BIRTHS.

Births of Boys, 1289; Girls, 1228; Total, 2497.  
Corrected weekly average in the 10 years 1873-82, 2787.4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	805	751	1556
Weekly average of the ten years 1873-82, } corrected to increased population ... }	894.5	846.9	1731.4
Deaths of people aged 80 and upwards ...	...	...	60

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	3	10	3	5	...	6	1	5
North ...	905947	1	5	13	4	5	1	9	...	7
Central ...	282238	...	5	6	1	1	...	3	...	...
East ...	692738	...	11	11	4	4	...	5	1	6
South ...	1265927	1	13	20	10	4	1	11	1	9
Total ...	3816483	2	37	60	22	19	2	34	3	27

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	...	29.422 in.
Mean temperature ...	...	...	...	...	...	...	44.1°
Highest point of thermometer ...	...	...	...	...	...	...	56.1°
Lowest point of thermometer ...	...	...	...	...	...	...	33.5°
Mean dew-point temperature ...	...	...	...	...	...	...	40.3°
General direction of wind ...	...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	...	1.00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 10, in the following large Towns:—

Cities and Boroughs	Estimated Population to middle of the year 1883.	Births Registered during the week ending Nov. 10.	Deaths Registered during the week ending Nov. 10.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2497	1556	20.5	53.1	33.5	44.1	6.73	1.00	2.54
Brighton ...	111262	62	38	17.8	58.5	36.0	44.3	6.84	1.11	2.82
Portsmouth ...	131478	95	35	13.9	...	...	...	...	...	...
Norwich ...	89612	48	24	14.0	...	...	...	...	...	...
Plymouth ...	74977	54	22	15.3	56.0	33.8	45.4	7.44	1.02	2.59
Bristol ...	212779	141	82	22.6	55.0	31.8	44.0	6.67	0.97	2.46
Wolverhampton ...	77557	45	27	18.2	50.0	29.5	39.6	4.23	1.58	4.01
Birmingham ...	414946	263	158	19.9	...	...	...	...	...	...
Leicester ...	129483	84	45	18.1	50.0	33.5	41.5	5.28	1.47	3.73
Nottingham ...	199349	131	73	19.1	51.5	30.7	41.2	5.11	1.47	3.73
Derby ...	85574	60	22	13.4	...	...	...	...	...	...
Birkenhead ...	88700	47	32	18.8	...	...	...	...	...	...
Liverpool ...	566753	370	268	24.7	52.5	37.3	43.8	6.56	1.01	2.57
Bolton ...	107862	64	43	20.8	48.6	31.9	40.8	4.89	1.69	4.29
Manchester ...	339252	249	181	27.8	...	...	...	...	...	...
Salford ...	190465	125	81	22.2	...	...	...	...	...	...
Oldham ...	119071	98	56	24.5	...	...	...	...	...	...
Blackburn ...	108460	70	50	24.1	...	...	...	...	...	...
Preston ...	98564	89	48	25.4	52.0	35.0	42.2	5.67	1.61	4.09
Huddersfield ...	84701	60	34	20.9	...	...	...	...	...	...
Halifax ...	75591	38	33	22.8	...	...	...	...	...	...
Bradford ...	204807	99	76	19.4	51.4	32.5	42.2	5.67	1.15	2.92
Leeds ...	321611	220	173	28.1	58.0	34.0	43.2	6.22	0.85	2.16
Sheffield ...	295497	226	114	20.1	50.0	32.0	41.8	5.45	1.31	3.33
Hull ...	176296	125	83	24.6	51.0	31.0	41.3	5.17	0.80	2.03
Sunderland ...	121117	91	52	22.4	...	...	...	...	...	...
Newcastle ...	149464	108	90	31.4	...	...	...	...	...	...
Cardiff ...	90033	71	41	23.8	...	...	...	...	...	...
For 28 towns ...	5620975	5625	3547	21.5	58.5	29.5	42.5	5.84	1.22	3.10
Edinburgh ...	235946	133	100	22.1	52.9	29.4	41.1	5.06	0.60	1.52
Glasgow ...	515589	354	230	23.3	59.5	29.0	46.5	8.06	1.52	3.86
Dublin ...	349385	166	173	25.8	52.5	31.3	41.4	5.22	1.13	2.87

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.42 in.; the highest reading was 29.93 in. at the beginning of the week, and the lowest 28.80 in. on Tuesday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

THE ROOERS TESTIMONIAL.

The following is the third list of subscriptions:—Morell Mackenzie, Esq., M.D., £5 5s.; Septimus Sibley, Esq., F.R.C.S., 7, Harley-street, £1 1s.; G. G. Whitwell, Esq., M.B. Coll. Edin., £1 1s.; Alfred Carpenter, Esq., M.D., Croydon, £1 1s.; Douglas M. Ross, Esq., M.B., 9, Pavilion-parade, Brighton, £1 1s.; Dr. Haward, 9, Harley-street, £1 1s.; J. Grosvenor Mackinlay, Esq., 15, Stratford-place, £1 1s.; J. Murray Lindsay, M.D., Mickleover, Derby, £1 1s.; Thomas Johnston, Esq., Belper, £1 1s.; J. R. White, Esq., Kelvedon Hatch, Brentwood, 10s. 6d.; C. T. Aveling, Esq., M.D., Lower Clapton, £1 1s.

THE BOAST FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Kindly acknowledge the following additional subscriptions to the above fund:—C. E. Winckworth, Esq., Shefford, Bedfordshire, £1 1s.; Bootle H. L. and L. X., 11d.; A. Potts, Esq., Attleborough, £1 1s.; Dr. Bull, Hereford, £1 1s.; Dr. C. Aldridge, Plympton, 10s. 6d.; J. Wylcocks, Esq., Sylch House, Burslem, 10s. 6d.; G., £1; L. Lewis, Esq., Plymouth, 5s. I am, &c.,  
1, St. George's-terrace, Plymouth, Nov. 13. GEORGE JACKSON.

A NOVEL SUGGESTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the course of one's midwifery practice, cases occur in which the relative proportions between the size of the foetal head and the passages of the pelvis are such that, after patient trial with the forceps or attempts to turn, you are obliged to reduce the size of the head before the child can be delivered, i.e., by craniotomy.  
In performing this operation you are advised, after perforation, to pass the instrument up to the base of the brain, that in case the child be living all traces of previously existing life be destroyed, so as not to shock the friends by the birth of a living child with practically a compound fracture of the skull, and usually loss of brain-substance.  
But I would ask, are we always justified in this course? Having properly explained the state of the case to the friends, would it not be possible, in cases of minor disproportion (the first in Barnes's division), to favour the birth of a living child, and subsequently to treat the injury to the skull as you would an ordinary case of surgery? Surely we do not consider a corresponding injury to the living as hopeless, nor do such injuries of necessity lead to permanent impairment of the functions of the brain.  
Never having read of the attempt to save life after craniotomy, I should like to suggest that the trial should be made in a favourable case where the child should be living, and where the friends have previously acquiesced to assist you in your endeavours to save another life, when that of the mother's has been rescued by the delivery by art, which nature could not effect unaided.  
I am, &c.,  
Salisbury, October. W. D. WILKES.

A PLEA FOR MAGNANIMITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As you were so good as to insert my former letter, I will trouble you with another, but on a different subject. It is a subject indeed that must have been in every doctor's mind this last week. I wonder how many of us—hundreds perhaps—were greeted as I was on that unlucky Friday, when the *Standard* lighted on that unfortunate paper in the *Lancet*,—were greeted by their patients with a distrustful look or a mocking laugh, while the index finger of scorn or triumph sought a letter and the leader in the crumpled morning paper. I have long retired from active practice, but am still able to hobble round to a few old patients, who cling to me for old times' sake. Among them are a philanthropical clergyman and his wife, both with hair as white with the snows of age as my own. Often have I discussed with them the vivisection question, and upheld the honour and humanity of my craft stoutly against all their gentle arguments. With a clear conscience I have contended that the pursuit of scientific truth by the method of experiment on living creatures can have no hardening effect on the investigator, but rather that it softens his whole moral being, and suffers it not to be cruel. With a clear conscience I have argued, with Bishop Butler, that the sight and even the causation of suffering for a worthy end, though it may lessen the passive habits of sympathy, lends increase to the active habit of helpfulness. And when my friends have expressed a fear that the experiments on living animals may so harden the investigator's sensibilities that he will transfer his experimental activity from the physiological laboratory to the hospital out-patient-room, I have pointed with a confident pride to the noble, sympathetic, self-sacrificing toil that is daily undertaken by hundreds of hospital doctors, with seldom a word of complaint from the patients. Sir, I can boast no longer, and when my friends point out that what has been admittedly done by two members of my profession may quite likely be daily done by hundreds, I can find no counter-argument but in my own faith in the rectitude of my fellow-practitioners. It is a false and humiliating position to be placed in, and it has fallen to all of us. But my object in writing to you is to warn my brethren against bearing too hardly on those who have brought discredit on us. One of them at least is young, and may be excused on the score of youthful indiscretion and an insufficient appreciation of his responsibilities, which the lapse of time and this terrible lesson will effectually cure. Let us forgive him for the wrong he has done to all of us. When I think of it, the words of Newton rise to my mind, "Diamond! Diamond! thou little knowest the mischief thou hast done."  
I am, &c.,  
November 13. A PRACTITIONER OF FIFTY YEARS' STANDING.

A Double Artesian Well.—Selina has an artesian well from which two separate streams of water of entirely different properties flow. This effect is produced by the insertion of a two-inch pipe within a four-inch tube. The large pipe descends 400 feet; the water has no mineral qualities, and is very cold. The inner pipe descends 700 feet; the water is strongly impregnated with sulphur and iron, and, compared with the temperature of the twin stream, is quite warm.



**Covetousness.**—The almost criminal selfishness of a single individual exemplifies how the attempts at suppression of an epidemic disease, after great expense incurred by the sanitary authority, may be frustrated. At Bradninch, Devonshire, an epidemic of small-pox has prevailed for some time. A man whose daughter died of the disease assured the sanitary inspector that he had destroyed the bedding and his daughter's clothes. It was, however, subsequently discovered that he had sold them to a rag-dealer of Exeter, who resold them to another dealer in a larger way of business. Thus the neighbourhood was endangered with the risk of the disease extending. A magisterial inquiry into the circumstances of the case resulted in a fine of 50s. upon the father of the girl, and a similar penalty on the dealer who purchased from him.

**Dilapidated Water-Fittings.**—The summons taken out by the East London Waterworks Company against the owner of certain property in Salter-street, St. George's-in-the-East, for permitting the fittings on his premises to be out of repair, and thereby causing a waste of water, has been heard by the magistrate. The defendant urged that he was not aware of the condition of the fittings, and that he ordered repairs to be made as soon as possible afterwards. The magistrate, however, reminded him that he had allowed eight days to elapse. A fine of 20s. and the costs of the summons was inflicted. Unlike the usual arbitrary action of water companies, these proceedings seem to have been taken from unselfish, considerate motives; to avert, indeed, cutting off of the water-supply—an alternative which would obviously have caused great inconvenience, suffering, and probably disease, in a crowded neighbourhood. It appeared that in this particular locality the water company had had numerous complaints of waste of water lately, and they deemed it necessary to make an example of the defendant, who is a property-owner, as a warning to others.

**Surgical Examinations.**—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the final examination for the diploma of Member of the Royal College of Surgeons on the 9th inst., when they were required to answer at least four questions, including one of the first two (from 1.30 to 4.30 p.m.), viz.:—1. Give the course, relations, and branches of that part of the radial artery which lies between the styloid process of the radius and the palm of the hand. 2. Mention in order the several parts whose condition may be ascertained by digital examination per rectum in both sexes. 3. A child, aged three, attempted to swallow some boiling water; this proved fatal in five hours. In such a case describe the symptoms and the appearances after death. 4. Mention the several courses which an abscess may pursue, and the circumstances which determine them. 5. What are the disorders of the eye which occur in inherited syphilis? Describe the symptoms of each. 6. State the causes of epistaxis, and describe the appropriate treatment in each case.—The following were the questions on Midwifery and Diseases of Women submitted to the candidates on the following day, when they were required to answer three out of the four questions from 12.30 to 2 o'clock p.m., viz.:—1. Describe the long forceps, and specify its advantage over the short forceps. 2. What are the dangers arising from implantation of the placenta on the lower segment of the uterus, and how would you combat them? 3. What are the conditions especially apt to cause pyrexia during the puerperal state, and how would you distinguish between them? 4. You are consulted by a patient who has a swelling rising out of the pelvis, and reaching halfway between the pubes and umbilicus. What might such a tumour be, and how would you ascertain its nature?—The following were the questions on the Principles and Practice of Medicine on the same day, from 2.30 to 4.30 p.m., when they were required to answer three out of the four questions, including No. 4, viz.:—1. What are the signs, symptoms, causes, prognosis, diagnosis, and treatment of facial neuralgia and sciatica? How do you discover and treat an empyema of the right pleural cavity? 3. What are the signs and treatment of hydatid disease of the liver? 4. Give the composition and doses of the pharmacopœial pills which are aperient. (The names of the successful candidates appear on another page.)

**COMMUNICATIONS** have been received from—  
Messrs. COLLIER, Walthamstow; Mr. E. L. HUSSEY, Oxford; Messrs. D. APPLETON and Co., New York; Mr. EDMUND GURNEY, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE REGISTRAR-GENERAL FOR IRELAND, Dublin; Dr. HEYWOOD SMITH, London; Dr. HERMAN, London; Mr. BECHER, London; Dr. NORRIS WOLFENDEN, London; Dr. ALEXANDER, Liverpool; Dr. C. BROWNE, London; THE SECRETARY OF THE PARKES MUSEUM, London; Dr. W. H. BARLOW, Manchester; THE REGISTRAR-GENERAL FOR QUEENSLAND; Dr. MEYNESTREY, Paris; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; Mr. W. D. WILKES, Salisbury; Mr. J. CHATTO, London; THE SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; Dr. THOMSON, Glasgow; THE EDITOR OF THE "SANITARY ENGINEER," London; Mr. MARK H. JUDGE, London; Dr. J. N. VINEN, London; Dr. J. W. MOORE, Dublin; Dr. J. MORTIMER GRANVILLE, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. T. M. STONE, Wimbledon; Dr. CLIFFORD BEALE, London; Dr. B. KELLY, Bermondsey; Mr. C. B. KEETLEY, London; THE HON. SECRETARY OF THE HUTCHINSON TESTIMONIAL FUND, London; Mr. G. MEADOWS, Hastings; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF CHARING-CROSS HOSPITAL, London; Mr. WICKHAM BARNES, London; Dr. ALTHAUS, London; Mr. G. JACKSON, Plymouth; Mr. J. G. KIERNAD, Chicago.

#### BOOKS, ETC., RECEIVED—

Hints in Sickness, by Henry C. Burdett—Habitual Drunkards Act, by Samuel Knaggs, M.R.C.S.—Annual Report on the Parish of Paddington for 1882—Sabbatsbergs Sjukhus i Stockholm för 1882—Ueber die diagnostische und prognostische Bedeutung der Tuberkelbacillen im Auswurfe, von Dr. M. Heitler—The History of the Year—Materia Medica and Therapeutics, by Roberts Bartholow, M.A., M.D., etc.—Report on the Health, Sanitary Condition, etc., of Kensington, October 7 to November 3—The Employers' Liability Act (1880), by R. Dacre Fox, F.R.C.S.—Statistical Tables of the Patients under Treatment in St. Bartholomew's Hospital during 1882—Abscess, by J. Stuart Nairne, F.R.P.S.—Annual Report on the Health of Salford, 1882—The Teeth, by Thomas Gaddes, L.D.S.—Elements of Practical Medicine, by Alfred H. Carter, M.D.—Note-book for Post-mortem Examinations, by Byrom Bramwell, M.D., F.R.C.P.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Edinburgh Medical Journal—Journal of Cutaneous and Venereal Diseases—Maryland Medical Journal—Australian Medical Journal—Practitioner—Denver Medical Times—Gardeners' Chronicle—Civil Service Candidate—Fairplay—Analyst—Fort Wayne Journal—Popular Science News, etc., Boston—Nordiskt Medicinskt Arkiv—Italian Times, November 10—The Planet—Montreal Weekly Witness—Nottingham Journal, October 26 and November 13—Journal of the Vigilance Association—Medical World—North Carolina Medical Journal—Indian Medical Gazette.

#### APPOINTMENTS FOR THE WEEK.

November 17. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

19. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Warner, "On Posture as expressing the Condition of the Mind." Dr. Milner Fothergill, "On some Nervous Derangements of the Heart."

20. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

**PATHOLOGICAL SOCIETY**, 8½ p.m. Mr. Durham—True Bone developed in Primary Tumours unconnected with the Osseous System: (1) in Epithelioma of Cicatrix; (2) in Adenoma of Breast. Dr. Hale White—Charcot's Joint-Disease. Mr. Eve—1. Pedunculated Adenoma of the Skin; 2. Hydatid Cyst in Muscle of Calf (card); 3. Sarcoma of Lower Jaw of Horse (card). Dr. Money—Necrosis of the Upper Jaw after Typhoid Fever. Dr. Heneage Gibbes and Mr. Sutton—Tuberculosis in Birds. Dr. West—1. Suppurative Pericarditis in Pyæmia; 2. Stomach from a Case of Carbolic-Acid Poisoning (card). Mr. Symonds—Suppurative Arteritis. Mr. Barker—Tongue with Extensive Tuberculous Ulceration. Mr. Lunn—Fracture of Spine (card).

21. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

**BROMPTON HOSPITAL FOR CONSUMPTION, ETC.**, 4 p.m. Dr. John Tatham, "On Broncho or Catarrhal Pneumonia."

22. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

**ABERNETHIAN SOCIETY** (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Mr. Andrews, "On Ferments."

**PARKES MUSEUM OF HYGIENE**, 8 p.m. Mr. George Murray, "On the Potato Disease" (the lecture will be illustrated by Microscopical Preparations and Diagrams).

23. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

**MEDICAL SOCIETY OF CHARING-CROSS HOSPITAL**, 8 p.m. Mr. W. B. C. Treasure, "On Recreation."

**CLINICAL SOCIETY OF LONDON**, 8½ p.m. Dr. Thin, "On Cases of Thickened Epidermis treated by Salicylic Plaster." Dr. Dawtrey Drewitt, "On a Case of Myxœdema." Dr. Cayley, "On a Case of Pneumothorax occurring in the course of Typhoid Fever." Dr. S. West, "On a Case of Complete Recovery from Idiopathic Pneumothorax without Effusion of Fluid." Living Specimen (8 p.m.): Mr. Mansell-Moullin—Thrombosis of the Inferior Vena Cava.



INTRODUCTORY LECTURE  
TO A COURSE OF  
PATHOLOGICAL HISTOLOGY.

*Delivered at St. Thomas's Hospital.*

By SEYMOUR J. SHARKEY, M.A., M.B. Oxon., M.R.C.P.,  
Assistant-Physician and Joint-Lecturer on Pathology at the Hospital.

GENTLEMEN,—Before commencing the course of Pathological Histology which is to extend over this winter session, it will be to our advantage if we try to form a clear idea of the position which this subject holds in relation to other parts of the student's curriculum, and to the final object of all his studies—a sound knowledge of Medicine and Surgery. When a teacher proposes to lecture upon a subject which his pupils are informed is not compulsory, it is incumbent on him to show clearly what advantage they will gain from studying it at all. So extensive and varied is the knowledge which is necessary for the medical man, that he is justified in declining to spend his time on subjects which when mastered will prove merely ornamental accomplishments. A consideration of the matter will, however, convince you that a knowledge of Pathology is essential to an intelligent appreciation of the practical problems with which you will have to deal as medical men; and that it is impossible to gain an insight into Pathology without the study of Pathological Histology.

The early studies of a medical student are intended to make him acquainted with the healthy functions and structures of the human body. Hence he commences with naked-eye anatomy, and tries to learn the forms and relative positions of bones, muscles, and internal organs, and the distribution of nerves and vessels. The importance of this as a foundation both for medicine and surgery fully justifies the time and care which are spent upon it. But even when this subject has been well mastered, it leaves the student with a very limited knowledge of the functions of the various parts. The structure of the heart was known long before the part it plays in the circulation of the blood was understood; and our present knowledge of the anatomy of the brain is far in advance of our knowledge of the action of its various parts. Knowledge of structure, in other words, does not necessarily bring with it knowledge of function. Physiology, then, or the study of function, has to be undertaken. As soon as this is attempted it becomes clear that the knowledge of anatomy attained by dissection is quite inadequate for the purpose. When a train remains motionless before the platform of a station until the engine comes up and hurries it off, it is evident to the least observant person that the function of the engine is to draw the train; but it is far from evident how it does so. No idea can be formed of that without a careful study of the machinery within and of the relation of one part to another. It is equally certain from naked-eye anatomy that the liver secretes bile and the kidneys urine. But how? To ascertain this we have to study histology, or the minute anatomy of the body. This is often wrongly termed physiology. Human physiology is the science of the phenomena which occur in the organs and tissues of the healthy body during life; and as many of the larger organs are only agglomerations of smaller and microscopical parts having the same structure and function, a knowledge of the function of the whole is only ascertained by a study of the minute details of the component parts—that is, by histology. The liver, for example, is a very large organ, and yet the microscope shows that it is nothing more than an aggregation of innumerable similarly constructed lobules, each having a like function; and it is only by studying the individual lobules minutely that we are in a position to arrive at any idea of the physiology of the liver as a whole. Physiology, in fact, can no more be learnt independently of histology, than the way in which steam makes an engine move can be understood without knowing the details of the machinery within the engine.

Physiology being the knowledge of the actions which take place in the various tissues of the body, in what do these

actions consist? They are, so far as we know at present, chemical and physical changes occurring in living organic matter, and for their due appreciation the student must apply himself to chemistry and physics.

Such are the subjects which it is absolutely necessary for the student to learn before he can expect to have any reasonable knowledge of what is meant by the body in a state of health, and without knowing which he can never carry on rationally the medical art. For how shall he appreciate disease—that is departures from health—which it will be his business to cope with, if he does not understand what health is?

The preliminary subjects, then, which a medical student should have studied before he proceeds to the investigation of disease are as follows:—Naked-Eye Anatomy; Histology, or Microscopic Anatomy; Chemistry; Physics; Physiology. And to these should further be added Embryology or the study of development. Quite apart from the great interest of this special branch of Anatomy and Physiology, a knowledge of the various phases which the human embryo goes through up to the time of birth, and subsequently up to the period of complete development, is necessary not only for the detection but also for the treatment of many abnormal conditions. It is only by a knowledge of embryology that we can understand such conditions as hermaphroditism, cleft palate, congenital heart-disease, the presence of diverticula from the intestines, etc.

The series of subjects which I have mentioned, and a knowledge of which I have said to be essential for a right understanding of the normal healthy state in man, has its parallel, which is equally essential for a knowledge of disease. It is as follows:—Morbid Naked-Eye Anatomy, Pathological Histology, Pathology, Embryology, Development of Morbid Conditions.

As you have studied the anatomy of the healthy subject in the dissecting-room, so you should now study in the post-mortem-room, by comparison, the anatomy of the body which disease has destroyed. If you make your observations intelligently, and if you have already gained some knowledge of histology, you will find your curiosity aroused by seeing many conditions of organs, many new growths, which are not present in the healthy body, and which you will find it impossible to understand or often even to distinguish from each other without subjecting them to minute dissection and examination with the microscope. This is the subject—Pathological Histology—which I propose to introduce to your notice this session.

Everything has a beginning and as time goes on is destined to change; and so it is with disease. Each abnormal condition has a commencement and the parts affected alter as the disease develops, some more, some less rapidly. Every tumour or morbid growth has its life-history and undergoes a series of changes. Without gaining a knowledge from the dead subject of the earliest conditions and of the various phases of disease, how can we expect to detect, much less to cure or prevent them in the living? Hence one of the most important parts of pathological histology consists in tracing the gradual development of morbid conditions. This corresponds to embryology in the study of healthy bodies. If you acquire a fair knowledge of morbid anatomy and pathological histology, including the development of diseased conditions, you will be able to follow and understand the more general questions of pathology which are treated of in the lectures of the summer session. And above all you will be in the most advantageous position possible for studying practical medicine and surgery. The latter are the crowning studies of the medical student's education, those which are to be the business of his life, and for the sake of which he has devoted all his previous time and attention to the subjects we have already mentioned. He has a right to demand that when he has arrived at this stage he shall feel that all his previous studies have been necessary for that which is now to monopolise his attention. And this I can promise him he will feel if he has really acquired a knowledge of them. Medicine and surgery consist simply in the detection in the living subject of unhealthy or pathological conditions, and in efforts to prevent, cure, or alleviate them. For this the student must have made himself well acquainted with the facts of pathology, and to do so I have shown you that a study of morbid anatomy, pathological histology, and pathological development is necessary. I have also pointed out that to understand disease



one must be familiar with the phenomena of health. The latter can only be learnt by Naked-Eye Anatomy, Histology, Embryology, Chemistry, Physics, and Physiology.

The medical student's curriculum is in fact framed with the view of leading him on gradually through a well-arranged system of preliminary subjects, until he is in a position to study to the greatest advantage the ills which afflict his fellow-men, and to treat them with the greatest chance of success.

If you have followed what I have said you cannot fail to appreciate the position of pathological histology, and to see how necessary a knowledge of it is for the well-educated medical man. Neither is pathology, nor are any of the subjects to which I have alluded merely ornamental, as students often seem to suppose, and unnecessary for all except those who aspire to leading and public positions in the profession. True it is that medicine and surgery can be and are practised by persons who have but a smattering of all, or indeed of some only, of the subjects which I assert to be essential. But this is merely because the ignorance of the public on medical matters is so great that they frequently cannot appreciate whether a man knows his business or not. His incapacity may escape detection, but without a fair knowledge of most of the subjects which together form the modern doctor's education, the latter can neither duly appreciate the phenomena of disease nor the principles of rational treatment, nor can he hope to add anything to our knowledge, nor even to understand the current literature of his profession.

Granted then that pathology is a necessary and essential factor in a medical man's education, what kind of changes may he expect to find occurring in diseased tissues? They are far more numerous than could possibly be treated of even in the most cursory manner in the course of one lecture. Some of them consist in an increase, some in a decrease of healthy tissues; some in destruction or alteration of them; some in the introduction into the organism of structures which are never present in health. But whatever the process be, whether for evil or for good, the student will usually find what are termed "cells" taking a prominent part in it. Nor should this at all surprise him; for if all tissues are not merely a collection of modified cells, they are at any rate one and all indebted to cells for their existence. The ovum is a cell, and it is by its subdivision and re-subdivision that numberless others are produced which are transformed gradually during development into the organs and tissues of the body. The blastodermic layers are nothing but collections of cells, and the heart may be seen in the embryos of some animals to beat while the individual cells which form it can still be clearly distinguished with the microscope. Such being the importance of cells in healthy bodies, it is no wonder that these structures should play so prominent a part in the changes which constitute disease. What then is a cell? How can one define it? The earliest discovery of cells took place in plants, and consequently the earliest ideas of what was meant by the term were derived from the vegetable world. It was found that here the cell consisted of—(1) an external thick layer or "capsule" of cellulose, that is to say, of a substance which contains no nitrogen and which stains blue on the addition of sulphuric acid and iodine; (2) within this a very fine membrane, which surrounds (3) the "protoplasm," a nitrogenous substance which turns brownish or yellowish on the addition of sulphuric acid and iodine; (4) a nucleus; (5) a nucleolus.

Now when a comparison was made between these vegetable cells and those which are present in the animal organism, it was found that there was a very decided difference between them. The cellulose capsule is absent in the latter. But apart from this, cells are similar in the two kingdoms. The animal cells which approach the complete vegetable cells most nearly are those of cartilage. Here we have a capsule, cell-contents or protoplasm surrounded by a fine membrane, a nucleus, and nucleolus. But even so the two are not identical in structure, for the capsule of the cartilage cell is not non-nitrogenous like that of vegetables; it contains nitrogen. This capsule, however, is not a part of the original cell at all, for young cartilage cells have no such structure. It is a secretion, if one may say so, formed by the cell. Thus setting aside these capsules, we have left as the component parts of a typical cell—(1) the external membrane or cell-wall; (2) protoplasm or cell-contents; (3) nucleus; (4) nucleolus.

Cells present great variety of form—some being round or polygonal, as in the liver; some spindle-shaped, as in unstriped muscles; some multipolar or with many processes, as in the central nervous system; and there are many other shapes. Yet, notwithstanding these variations in the cell, the nucleus changes but little; it remains constantly roundish or oval. The nucleus is probably that part on which depends the growth and life of cells rather than their function. The latter depends upon the protoplasm or cell-contents. Wherever growth is going on, pathologically or physiologically, there will nuclei be found; and where cell-life is becoming extinct, there the nucleus may be absent. Thus, for example, in the cells of the external layers of the epidermis which are constantly being shed there are often no nuclei. Similarly, the cell-membrane may be, and often is, absent—in white blood-cells, for instance. The latter are bodies which are constantly active and in their activity they push forward their protoplasm in processes and withdraw it again, as do the amoebæ amongst unicellular animals. In order to exert these free movements and bring about such rapid changes of form, the cell must be soft and not hemmed in by a firm, unyielding membrane on its periphery. Such cells, in fact, have no cell-wall. Indeed it is probable that in all young cells there are simply protoplasm and nucleus, and that the cell-wall is only a later development: just as the absence of a nucleus, referred to above, is not the original condition of any cells, but only a phase in the life-history of some. In the early stages of all cell-growth, however, one can discern protoplasm and nucleus, and generally nucleolus, though the protoplasm is often present only in very small quantity.

A cell then you may take to mean a nucleus surrounded by protoplasm—always remembering that a cell-wall or membrane may develop, the nucleus may disappear, and the protoplasm may undergo very considerable alterations.

Wherever you find vital changes going on, whether physiological or pathological, there you will meet with cells. They are the laboratories wherein occur the molecular physical and chemical changes which constitute life.

A due appreciation of the universal presence and great importance of cells gave rise in the hands of Virchow to the "Cellular Pathology," which you will constantly be reminded of as we treat of the pathological changes which occur in man, and which is, indeed, the keystone to Modern Pathology.

If the cell comes so prominently to the foreground, and if, as I have given you to understand, you are going to be constantly examining even swarms of them which have no existence in the healthy body, you will naturally ask where they come from. As we study the various diseases occurring in each organ we shall also try and form a conclusion as to the origin of new cell-growth in each particular case. Here I merely want to point out to you the principle which holds good not only in diseased but also in healthy bodies. Formerly it used to be thought that a plastic material, "cytoblastema," was formed in the body, and contained numberless granules embedded in it. These organic but lifeless granules were supposed to aggregate themselves into clumps, which became the living cells and their nuclei. This process corresponds with that which is called "generatio æquivoca," or "abiogenesis" in the animal and vegetable kingdoms—a process by which some people assert that living organisms arise from organic granules, and hold that there is no necessity for supposing that each individual organism must have come from a living parent. They say, in fact, that life can originate *de novo* from lifeless matter. There is but little evidence that such a process ever occurs, and you must accept as your guiding principle, "*Omnis cellula e cellula*"—wherever a new cell is developed there must have been a parent-cell. As a rule this reproduction of cells occurs by a process called "fission," or by some modification of it. First of all a constriction in the nucleus is seen, which gradually grows deeper and deeper until there are formed two nuclei in the place of the originally single one. Then a similar process commences in the cell itself, and its protoplasm gradually divides into two halves, each appropriating one of the new nuclei. The stages of this process you will be able to observe and verify for yourselves, and nowhere is it better seen than in cartilage. The finer changes, however, which have recently been discovered in the nucleus during and previous to its division cannot be seen in sections prepared in the



ordinary way, but I will endeavour to show you specimens of them. The ovum itself is a cell which divides and subdivides as it grows into innumerable others, so that every cell in the adult body may be considered as a direct descendant of that which formed the ovum. So much then for cells, which, together with their modifications, are the truly active vital agents in the body in health as well as in disease.

To form organs cells require to be aggregated into masses; and this is effected by means of connective tissue. The latter generally consists of bundles of wavy fibrils running in various directions, and leaving spaces between them which are occupied by the so-called connective-tissue corpuscles, which assume a great variety of shapes. This connective tissue with its various modifications you will find occupying a place in pathology only second in importance to cells, and I should advise you to become at once familiar with its appearance under the microscope. It is indebted to cells for its existence, either directly or indirectly. There are two views on this subject, each upheld by good observers. One is that these fibrils are produced by a fibrillation in the cells themselves; the other that the cells remain unchanged, but the intercellular matter in which they are embedded fibrillates. Whichever view be the correct one, the presence of connective tissue is of the greatest importance in pathology, and its development always takes place in connexion with cells.

Next to cells and connective tissue the most important structures to get familiar with are vessels. New tissues depend for their existence on the supply of nourishment brought to them by vessels, and although some pathological products are non-vascular and therefore rapidly degenerate, vessels are objects which will be met with at every turn during this course of lectures. When of moderate size they are not at all difficult to recognise, and you should make yourself familiar with the appearance of the various coats of the larger ones in health. New capillaries are far more frequently found in diseased growths than more fully developed vessels, and they are more difficult for the student to recognise. This is due to the extreme delicacy of their walls, which consist simply of flat cells welded together, and when looked at under the microscope one sees little more than two parallel lines of alternately-placed longish nuclei with a space between them forming a tube. I advise you, therefore, to get immediately familiar with the appearances of the various forms of cells, of connective tissue, and of bloodvessels, especially of the smaller ones as seen under the microscope. If you do this, and if you have a fair knowledge of the microscopical anatomy of healthy structures, you will have little difficulty in understanding the diseased. I shall not, however, take for granted your knowledge of normal tissues, but I shall always recall to your memory the structure of the healthy organ before treating of the diseases which affect it, and you will always find under microscopes, for comparison, sections of the tissues we are investigating, as they appear in a normal state.

You need not expect learned discussions from me on abstruse questions in pathology. Simplicity shall be my aim, remembering that you are commencing the study of pathology and that a sound knowledge of the subject depends upon the accuracy with which you learn the elements, and the ease with which you retain the leading facts in your memories, rather than upon the quantity which I might be able to force into a temporary occupation of your brains.

Let me bring these few remarks to a close by giving you a piece of advice about the use of the sections of pathological conditions which you are going to accumulate. I have often noticed what a pride students take in making prettily stained and mounted preparations, and when they are made they treat them simply as studies in artistic colouring. If they are asked what the specimen shows, they often display absolute ignorance, and seem to think a knowledge of such details a matter of secondary importance. The only use, however, of these specimens is to teach you pathology, and the only good of colouring them is to enable you to learn it better. Make, therefore, the best preparations you can, because they will show and teach you most. But rather spend your time in studying a poor specimen than in mounting section after section, endeavouring to make one prettier than the other, and finally hoarding them up in a box, with the idea that having them there is equivalent to having your brains well stocked with pathology.

## HODGE'S PESSARY AND ITS MODIFICATIONS.(a)

By G. ERNEST HERMAN, M.B. Lond., M.R.C.P. Lond.,  
F.R.C.S. Eng.,

Obstetric Physician to, and Lecturer on Midwifery at, the London Hospital; Physician to the Royal Maternity Charity; Examiner in Midwifery to the Royal College of Surgeons of England, etc.

(Concluded from page 568.)

In applying a Hodge's pessary, we want to choose the one which the vagina will retain, which will extend the vagina and carry its posterior *cul-de-sac* as far backwards and upwards as possible, and which, while efficiently doing this, will not exercise any injurious pressure upon any one point. I propose now to compare the different varieties of Hodge's pessary from this point of view.

The simplest and the parent instrument—the one with which Dr. Hodge started, and out of which his pessary arose—is the ring. A rigid ring, large enough to fill the vagina, cannot usually be introduced without difficulty and pain to the patient, and its pressure when *in situ* is likely to be injurious. Therefore an elastic ring, the opposite parts of which can be pressed together for the purpose of introduction, and which does not exert unyielding pressure, is preferable. If the ring be thick, its pressure is more diffused, and therefore less likely to cause pain or ulceration than if it be thin. A thick elastic ring, such as is made of watch-spring, covered with india-rubber, is therefore the best. This form of instrument is stated to have been originally devised by Dr. Meigs, of Philadelphia.(b) The Meigs ring is the simplest and safest of all vaginal pessaries. Assuming that the case is a suitable one, the only disadvantageous mistake that can be made in the application of such a ring is the choice of too large a one. If this error be committed, the unsuitability of the instrument will soon be evident from the pain it will cause the patient. But if the pessary be of proper size—that is, big enough to fill the vagina, without making it tense,—its thickness and elasticity so diffuse the pressure which it exerts, that it is rare for any ulceration of the vagina to be produced. I have used these rings largely, and have never once seen ulceration result from them. The ring pessary, when retained, fulfils the main requirement—it prevents inversion of the vagina, and thus prevents prolapsus. It carries the posterior *cul-de-sac* of the vagina backwards, and thus in the same manner as a Hodge, and in most cases as effectually, prevents retroversion. Even in some cases where the ring did not when first introduced correct retroversion, I have found the uterus in the natural position after the pessary had been worn a few weeks. The thick elastic ring is especially useful where the uterus, besides being displaced backwards, is tender, or where the ovaries are prolapsed and tender; for in these cases the thick elastic pessary presses so much more gently than the rigid bar of a Hodge, that it can be borne where the latter is not tolerated. I would venture to offer this practical advice: whenever the uterus is tender, and you are not sure, after applying a Hodge's pessary, that the uterus is raised into a position of anteversion, or at least into the axis of the pelvic brim, you will do well to substitute a Meigs's ring for a Hodge.

I may say, in passing, that there are three ways of ascertaining whether the uterus is in or near the axis of the pelvic brim. The best and only certain method is by bi-manual palpation. When the uterus is thus grasped between the two hands, its position is made out beyond mistake. But in patients whose abdominal walls are fat or rigid this may be impracticable. Then we are reduced to (2) the use of the sound; which, if the uterus be in the axis of the brim, will, of course, easily pass up with its concavity looking forwards. If the uterus be retroflexed, it will usually not pass more than an inch or an inch and a half until the concavity is turned backwards. This method is not free from error, for I have found the sound passed with the concavity forwards straighten out a retroflexed uterus as it passed on; but this is exceptional. This method may be checked by (3) rectal examination, by which, if the uterus be

(a) Read before the East London and South Essex district of the Metropolitan Counties branch of the British Medical Association.

(b) Hodge, "Diseases Peculiar to Women," second edition, 1868, page 401.



still retroflexed, its body may be felt bent back over the top of the pessary. This is not practicable when the instrument used is a very large one, for then the finger may be unable to reach above it. It is often stated that it is necessary, for the proper adjustment of a Hodge's pessary, to first replace the uterus with the sound. In the cases in which Hodge's or a ring pessary will keep the uterus anteverted, the uterus will usually assume that position as soon as the instrument has been inserted. When the pessary does not at once antevert the uterus, and this is then done with the sound, sometimes the organ will remain in its new position; but generally it falls back again directly the sound is removed. The cases, therefore, in which, according to my experience, replacing the uterus with the sound is advantageous, are very few.

Certain theoretical objections are brought against these rings. Hodge says, "Under the pressure from above, it will, indeed must, remain parallel to the plane of the perineum." (c) To see if this were so, I have carefully measured the distance from the plane of the perineum, of the anterior and posterior parts of the ring pessary, in patients who were wearing them; and I have almost always found that the posterior end was higher up than the anterior, and that therefore the ring was not parallel with the plane of the perineum. On a matter of clinical observation I should only with great caution differ from so faithful an observer as the late Dr. Hodge is shown by his book to have been, and I have sometimes found the ring parallel with the plane of the perineum; but I am sure that it is only exceptionally so.

Another objection made is that the ring enlarges the vagina laterally, and so makes the last state of the patient worse than the first. I think this statement is based on conjecture, and not on observation. I do not think that there is theoretical ground for it, for, according to Hart (whose statements are supported by the evidence of sections, besides being, as it seems to me, in accord with clinical observation), the anterior and posterior vaginal walls, normally in contact with each other, are triangular in shape, the base being above, and the apex below. The introduction of a ring into a loosely walled cavity of this shape, although it may slightly alter its outline, will not greatly distort it. I have seen numerous cases in which patients have worn a Meigs's ring for months, and then have been able to do without it; and therefore I believe that this supposed injurious effect of the ring is one which either only exists in imagination, or results from accidentally coincident morbid changes, or from badly fitting instruments.

The real drawbacks of the Meigs's ring appear to me to be these: first, that it is not so efficient as Hodge's pessary in carrying the posterior vaginal *cul-de-sac* upwards and backwards; next, that its posterior part, being flat, and not curved upwards, presses on the front of the rectum. If the bowels are confined, and scybala have to pass, the ring projecting backwards is apt to obstruct defæcation. This may easily be avoided by keeping the bowels regular; when this is attended to, no trouble of the kind arises. There is also the disadvantage which attends every india-rubber instrument—that when worn long by inattentive patients, they may cause vaginitis, with foetid discharge. This is to be prevented in most cases by telling the patients, while wearing the ring, to syringe the vagina night and morning with hot water. In dealing with patients who are not very intelligent, it is well to be sure that they have a syringe provided with a vaginal nozzle of sufficient length.

Hodge's pessary cannot be more correctly described than in the words of the inventor himself. He says: (d) "The important modification consists in making a ring oblong instead of circular, and curved so as to correspond to the curvatures of the vagina and rectum. Great advantages result from this form: the convexity of the curve, being in contact with the posterior wall of the vagina, corresponds with more or less accuracy to the curve of the rectum, perineum, and sacrum. Hence, when properly arranged, there is no pressure against the rectum. . . . The oblong form and the curvature are the two essential peculiarities of the lever pessary."

Hodge put before the profession two forms—the open and the closed lever. The open lever has never, so far as I know, been much used; and therefore I speak only of the closed lever—the one universally known as Hodge's pessary. Its

peculiar advantages are these—First, by its oblong shape, it carries the posterior vaginal *cul-de-sac* further upwards and backwards than the ring of which it is a modification. In being not a simple oblong, but smaller at the lower end than the upper, and in being slightly sigmoid when looked at from the side, it corresponds to the shape of the vagina; and, through this exact adaptation, it is kept in position by the simple pressure of the anterior vaginal wall against the posterior, no spot being used as a point of support, and therefore unduly pressed on. Further, its oblong shape permits its introduction, when made of a rigid material, without excessive pain to the patient; and this gives us a large range of choice of fabric. Thus, tin, pewter, vulcanite, xylonite, aluminium, have all been used. The respective merits of the different materials I shall not here discuss.

I would now remark on the ordinary modifications of Hodge's pessary. First, a large posterior curve has been recommended by many. The explanation usually given of its utility is that it presses the body of the uterus further up. For reasons already given, I think it cannot both do this and at the same time straighten the uterus. Its real advantage I judge to be this—that, by bulging out behind the posterior vaginal *cul-de-sac*, it gives room for the cervix to move backwards. When the posterior vaginal wall is put on the stretch, it of course becomes as nearly straight as the instrument extending it will permit, and if the portio vaginalis be long, the vaginal wall, as it approaches a straight line, must press the cervix forward. This is an effect directly contrary to that of Hodge's pessary when acting with the maximum of efficiency; for then, as has been pointed out, as the body of the uterus falls forward the cervix moves backward. The advantage of the large posterior curve is, that it makes room for this backward movement of the cervix. Next, certain alterations of the posterior end have been made, upon the theory that the pessary presses directly upon the uterus. They tacitly recognise the fact that when the instrument does so press upon a congested uterus the pressure is painful, for they seek to lessen the pain by distributing or lessening the pressure. On this principle, the posterior end has been made slightly concave, to correspond with the convexity of the body of the uterus, so that this convexity may lie in the concavity of the pessary, instead of touching it at one point only, as would be the case were the end of the instrument convex. With a similar aim, the posterior end has been greatly thickened, in order to diffuse the pressure. It has also been capped with a soft pad. I regard these modifications as suited only for exceptional cases. The pessary should not press on the uterus at all; and if it does not press on the uterus, it matters little what is the shape of its posterior end. But when a Hodge will not straighten the uterus, but presses on it, and the uterus is tender, the soft pad is the one which makes the pressure the least severe. There are also modifications of the lower end. One of them consists in making it pointed, the theory being, that the point shall fit in between the rami of the pubes, and thus the pessary be kept in the antero-posterior diameter of the pelvis, and prevented from shifting its position so as to get across that diameter. This principle seems to me erroneous, because Hodge's pessary ought not to take its support from bony parts, or to press upon bones at all; it should be held in position simply by the vaginal walls. The change is also, I think, disadvantageous in two ways—first, the point serves as a wedge to facilitate its slipping out; and, second, the projection downwards of the point makes it inconvenient for married women. For these reasons I do not regard this modification as an improvement. Another, and most useful, alteration is that which we owe to the ingenuity of Dr. Greenhalgh. In this form the anterior end is square, and formed by connecting the extremities of the lateral limbs by pliable india-rubber. This form differs essentially, in the mechanism by which it is retained, from the original pessary of Hodge. Its especial utility is in cases in which the integrity of the vagina has been so destroyed by parturient injuries, its tone relaxed, and its lower orifice widened, that it will not retain a pessary by the mere coaptation of its walls. The lower end of Greenhalgh's instrument can be made very wide, and yet its sides can be pressed together during its introduction, so that it can be put in without pain; and when in position, the spring makes it regain its shape. It is kept in place by the pressure of its two anterior corners against the sides of the vaginal orifice, supported by the rami of the pubes. Its disadvantages are those common to all india-



rubber pessaries. A variety which is retained by the same mechanism, and which is commonly used for uterine prolapse, is that in which the anterior of the two curves which give Hodge's invention its sigmoid shape is dispensed with, or replaced by a curve in the opposite direction, so that the lateral view of the pessary resembles a C more than an S. The instrument is usually at the same time widened. The effect of the change is that the anterior end is directed more forwards, and impinges on the anterior vaginal wall instead of presenting at the vaginal orifice. Consequently, expulsive pressure is resisted by the sides of the pessary pressing against the sides of the vaginal orifice. Under conditions which make the pressure from above greater than usual, this instrument, like Greenhalgh's, presses on the pubic rami.

### SEQUEL OF A CASE OF FRACTURED PATELLA TREATED BY MALGAIGNE'S HOOKS.

By H. ROYES BELL, F.R.C.S.,  
Surgeon to King's College Hospital.

It will not be out of place at the present moment to draw attention to several cases of fractured patella treated by Malgaigne's hooks, under the care of the late Mr. Partridge, and reported in the *Medical Times and Gazette* as long ago as February 15, 1868. (a)

*Case 1.*—A married woman, aged forty-six, was admitted into King's College Hospital on April 2, 1866, suffering from a transverse fracture of her right patella, about its middle. She was seen immediately after the accident, when there was three-quarters of an inch space between the fragments, and no effusion. The fragments were brought into apposition by Malgaigne's hooks, which were retained until May 15, when the reporter states that the fragments had perfectly united by bone—at least, it then appeared so. Two months after, no trace of fracture could be detected.

"*Case 2* is of more interest, and to it I wish to call special attention. Alfred B., aged thirty-six, was admitted under Mr. Partridge's care on January 4, 1868, suffering from a fracture of the right patella, running transversely, and near to the upper margin of the bone. The fragments were separated about two fingers' breadth. There was little or no effusion into the knee-joint. The left patella, it was also found, had been broken transversely some six years previously; the pieces were just four inches asunder. The left patella had been treated at a neighbouring hospital in the usual way, and not with 'Malgaigne's hooks.' The house-surgeon fastened the hooks into the upper and lower fragments of the right patella, and brought them closely in apposition. The limb was placed on a back-splint, and raised as in the last case, and evaporating lotion applied. There has been no irritation caused by the apparatus, nor has there been much effusion into the joint. The hooks have not yet (February 10) been removed, for it is considered always advisable to keep them in for some six weeks, provided that they do not set up irritation; but, to all appearance, bony union has, even at this short date, been completed."

About the final result of the first case I know nothing, but the second case has come under observation several times during the last year or two. The most efficient way, next to uniting a broken patella by means of a wire suture, is to bring the broken fragments together by the use of Malgaigne's hooks. In the winter session of 1864-65, when House-Surgeon to King's College Hospital, I applied them to the cases admitted for fractured patella, and with very excellent immediate results, with the exception of one case—that of a woman, a playbill-seller at Drury-lane Theatre who was addicted to intemperance. Unfortunately, erysipelas attacked the wounds made by the hooks, extensive cellulitis of the thigh followed, and the woman died. It is advisable to avoid their use when the patient is suspected to be diseased, and if used they might be more safely applied with antiseptic precautions. The man alluded to above has applied to me several times, suffering from effusion into one or other of the knee-joints, owing to injuries from falls.

The right patella (the one treated by the hooks) is in a better condition than the left, and has a strong uniting medium of about two inches of fibrous tissue. The fragments of the left patella are separated for between four and five inches, and the uniting medium is much thinner than that of the right patella. He is now fifty years of age, and can follow his occupation—that of an engineer,—but is liable to fall at times and injure himself. A back-splint and the application of a lotion are all that is found necessary to relieve him of his occasional mishaps. Like the above, many of the cases of so-called bony union eventually turn up with ununited patella and wide separation of the fragments.

Queen Anne-street, W.

### REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

#### ST. THOMAS'S HOSPITAL.

#### HYDATID TUMOUR OF THE LIVER—ANTISEPTIC INCISION INTO CYST—CURE.

(Under the care of Mr. CROFT.)

S. J. B., a young woman twenty-two years of age, came under Mr. Croft's care, from a physician's ward in St. Thomas's Hospital, on May 9, 1881. At this time a movable tumour could be distinguished in the epigastric region. On pressing the left ribs when the patient was recumbent, the tumour was easily passed into the epigastric region, and by further pressure it could be made to glide as far down as the lower part of the umbilical region. When all pressure was removed, the tumour retracted under the left costal cartilages. When she moved on to the right side, the tumour shifted about two inches and a half. In the erect posture, gravitation scarcely altered the position of the swelling. The tumour-dulness measured laterally about five inches, and from above downwards about four inches. To the touch it yielded a sense of elasticity and doubtful fluctuation. Manipulation induced nausea and a feeling of sickness, and she said it was tender. The liver-dulness extended from half an inch below the right nipple to just below the margin of the ribs, and was continuous towards the left with the dulness over the tumour. She complained of throbbing in the tumour, but no real pulsation existed. The abdominal viscera were all functionally healthy, and no physical derangement of any of them could be detected. Exploration of the tumour by a trocar and canula had been made about a month previously, and two or three drops of opalescent fluid were drawn off. These yielded chlorides, but no albumen nor any cell-growth. The puncture caused a little pain and feeling of faintness, which soon passed away. No change followed in the tumour.

*Previous History.*—She had first observed a swelling when lifting a heavy weight about a year back. She felt a something rise in the abdomen, and since then she had never felt well. She had experienced dragging pains in the left side more or less for three years. She became incapable of pursuing her occupation as a servant, being rendered sick and faint by exertion, lifting, standing, or walking for any length of time. The tumour had increased in size notably during the last five months. Catamenia had never been regular. She was a delicate-looking woman. She had been under observation by various physicians since May, 1880, when she first observed the tumour. Her temperature had been normal and the kidneys appeared healthy.

On June 1, 1881, Mr. Croft made an exploratory operation with antiseptic precautions, the patient being under ether. An incision in the median line over the tumour soon discovered a pyriform tumour of the size of a fist projecting from under the front margin of the liver. On the assumption that it was hydatid, Mr. Croft endeavoured to extirpate it, but it was so closely adherent to the liver, and the parenchyma of the organ bled so freely, that he abandoned the attempt. He next brought the fundus of the tumour forward into the wound, attached it by suture to the edges of the skin, then freely incised it and turned out its contents. It was densely packed with hydatids, but contained scarcely any fluid. Having completely emptied it, without having allowed any of its contents to escape into the peritoneal cavity, he care-

(a) Neale's "Medical Digest," page 66, 1763-65.



fully stitched the cut edges of the cyst to the skin, cutting away as much of the cyst-wall as could be spared. The after-progress was perfectly aseptic and satisfactory. When the edges of the cyst had become safely united to the abdominal wall, the full antiseptic dressings were left off, and suppuration favoured. Some small pieces of the cyst-wall necrosed and came away. In September a sinus about one inch and a half in length remained, and she was allowed to go into the country, whence she had come. In a few weeks the sinus had closed.

#### HYDATID CYST IN THE THIGH—ANTISEPTIC EXTIRPATION—CURE.

(Under the care of Mr. CROFT.)

R. B., male, aged forty years, a servant by occupation at Marlow, was admitted under Mr. Croft's care in St. Thomas's Hospital on June 7, 1880, recommended by Dr. Gover, of Bishop's Stortford.

The man presented an obvious tumour in the inner portion of the right thigh, in its middle and upper thirds. It was longer from above downwards than from side to side, the prominent part of it measuring four inches in length and three in width. The skin was not adherent over it, and it was quite movable among the muscles. It was crossed by the sartorius and gracilis muscles. The internal saphena vein was dilated and thickened, and this condition had not been noticed prior to the tumour. The swelling was tense, elastic, and yielded fluctuation; it was free from true pulsation. He had first discovered the swelling about three years previously, when it was nearly as large as on admission. It had not caused him much inconvenience or any pain. The neighbouring glands were unaffected. He had enjoyed good health, led an active life, and had been in the same service for fifteen years.

On the 16th, Mr. Croft cut down upon the tumour after Lister's antiseptic method, and with some difficulty dissected out the cyst. The fundus which presented in the middle of the thigh was prolonged upwards beneath the adductor brevis muscle, and this necessitated a troublesome dissection. The sheath of the femoral vessels was exposed, and some adductor muscular fibres were cut through. The wound was dressed antiseptically, and drainage-tubing inserted. The cyst, which was flask-shaped, was thick-walled below, but very thin above; it contained a large quantity of hydatids and a considerable quantity of fluid. On the five days following the operation the temperature was febrile, varying from 100° to 103° Fahr. The wound was dressed four times (antiseptically) during this period, and on each occasion a tense condition of the parts prevailed. On the sixth day Mr. Croft dressed it, providing for more free drainage, and immediately the temperature fell to normal. The wound afterwards followed a perfectly aseptic course, and at the end of three weeks the patient was able to return to Essex, cured.

*Remarks* (by Mr. Croft).—The source of the hydatids could not be traced in either case. The very small quantity of fluid in the liver-cyst is interesting so far as it affected the exploratory tapping. The minute quantity of fluid obtained did not yield sufficiently positive indications with regard to the nature of the cyst. The special vibratory thrill of hydatid cysts was not obtained in either case.

**RELAPSE OF ZONA.**—Dr. Fabre relates in the *Gazette Médicale*, October 20, a case of relapse of zona, which is stated by all writers on skin diseases to be of rare occurrence, and which he has only observed once before in sixty-four cases that he has had in his own practice. On the first occasion of the zona appearing it occurred on the right leg, and sixteen months afterwards it appeared on the left side of the chest. The man who was the subject of this case had, eight months before the first appearance of the zona, slight cerebral hæmorrhage, which was followed by a certain degree of hemiplegia on the right side; and Drs. Duncan and Payne have each related a case in which zona occurred on the same side as a preceding hemiplegia. Dr. Barthès in 1874 published a case in which the zona was on the same side as the hemiplegia, and Dr. Fabre has also met with a similar instance. In his present case, the first attack of zona occurred on the same side, and the second attack on the opposite side.

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## Medical Times and Gazette.

SATURDAY, NOVEMBER 24, 1883.

#### PURE PRACTICE.

THE question of the rights and wrongs of "general practitioners" and "consultants"—their relations to one another and to their patients—seems to rise ever and anon to the surface, and to be a subject of perennial interest, if we may judge from the discussion which it evokes, to many members of our profession. Quite recently, a paper read by Dr. Newth before a branch of the British Medical Association has drawn forth comments and letters from various quarters. The question considered by Dr. Newth—that of the possibility of establishing in the profession a class of "pure consultants"—is one which appears to us even now to come scarcely within the field of practical possibilities. It would be well, no doubt, for us all—for the profession and for the public—if a separate class of consulting physicians and surgeons could exist, whose work should be found exclusively in what is known as "pure practice" in their respective branches. It might be well even if the Royal Colleges of Physicians and Surgeons should reserve their fellowships for those who should thus take rank as a separate and leading grade in the profession; well, too, if this grade of honour should contain those only who, by their work as authors or professors, or by the high and peculiar excellence attained by them while in the lower or general ranks of our body, should have gained the exceptional esteem and confidence of the profession as a whole. Such a class of pure consultants would no doubt reflect credit upon us all. Their talents and qualities would so command the respect of their brethren that their advice would be gladly and confidently sought. Their remuneration would be by a scale of fees which, while it should endue them with much of the respect which any article of high value will command, should place them beyond all suspicion of competition with the ordinary practitioners of medicine. All these, however, are details of a scheme which is probably impossible of realisation; and for this reason above all, that the voice of the public and their influence



could never be enlisted for the establishment and maintenance of such a class as we have indicated. The position of consultant must ever be attained by the action, combined or separate, of three factors. First, the physician or surgeon himself. Any man, however inexperienced, may, if his means allow, take up his position as a pure consultant, and refuse all work except what comes under that head. True, he may find himself left without work, and may descend, after all, from his lofty and self-constituted ideal. Secondly, the public may, and often do, elevate any man, not always the most worthy, from the ranks of the general to that of the pure practitioner. This is a gradual, but in many cases a sure and permanent process. And, thirdly, the profession *en masse* may, to a great extent, make or mar any consultant by seeking or by neglecting his advice. At any rate it is clear that, whilst freedom of action remains to the profession and to the public, a popular consultant might arise and flourish outside the special grade of honour (did such a grade exist), and that, on the other hand, a consultant belonging to the superior grade might be driven, by absence of work, back to the lower rank from which he had untimely sprung. Either eventuality would discredit the reputation and destroy the *raison d'être* of the class of pure consultants.

This, then, being the case, and consultants being, as they are, not especially limited in their practice, but free, like other men, to practise their profession to their own best advantage, what are the grounds of complaint alleged against them by many general practitioners? That there is in many quarters a soreness or consciousness of wrong, we must, from the correspondence elicited by the mere mention of the subject, believe. It is from the provinces that these complaints are most loudly heard, and the provincial consultants whose position is most frequently assailed. Matters professional settle down, as other matters do, with less friction and clatter in the great labour market of the metropolis, though here too the same conditions, if sought for, may be found to exist. The grounds of complaint, as implied in reviewing the correspondence on the subject, are twofold. First, that those who engage nominally in pure practice as physicians or as surgeons undertake, if occasion offers, the treatment of diseases foreign to the line of exclusive practice which they have adopted; and, secondly, that, while calling themselves consultants, they engage in what is practically general or family practice, and work thus for such fees as place them in direct competition with the general practitioner, from whom, nevertheless, they expect support. As to the first complaint, there is no doubt that it is in some cases well founded. The consulting physician or surgeon, being generally attached, in provincial towns, to the staff of the local hospital, derives a certain prestige from such a post, and, in accepting it, agrees tacitly or actually to confine himself either to medicine or to surgery, as the case may be, and, by using the hospital wards as a field of practice, so to devote himself to the perfection of a higher knowledge of that branch of his art as to deserve the confidence and support of the general practitioner. But we should say that this grievance is too rare to deserve much notice. There must be few consulting physicians who will, in the ordinary course of practice, set a broken bone, and but few consulting surgeons who will attend on a case of pneumonia or typhoid fever. Where such cases do occur, it can hardly be wondered at that a withdrawal of mutual confidence and a strained condition of the relations between consultant and general practitioner are the result.

The second accusation against the consulting body is one which we must allow to be founded on fact. It involves, however, a more comprehensive issue, and it has appeared to us, regarding the matter impartially from the points of

view both of the consultant and the general practitioner, that the latter has, in fact, no legitimate ground of complaint. Nothing, assuredly, can be gained by multiplying points of etiquette, and surrounding medical practice with such artificial restrictions and by-laws as can never stand the strain of actual work. We may be sure at least of one thing, that the public, if these barriers be in truth unreal and artificial, will, in any emergency, insist on their being set aside. The rights of the general practitioner cannot be supreme, and this matter of the absolute distinction between consultant and practitioner is one in which the public voice would soon make itself heard.

The general practitioner complains that the consultant competes with him in what is, in effect, *general practice*; but is he ready to forego all right of competing, should occasion offer, with the consultant in the higher field of *consulting practice*? We hardly think that he will stand the test. Let us take the case of a high-class general practitioner in any of our large provincial towns. As time goes on, and as he rises, gradually but surely, in public estimation, he will have various opportunities of enhancing his fame and improving his status by acting, on request, as a consultant with some brother practitioner. Will he refuse this opportunity? Will he reply to these tempting offers, "I am a general practitioner; I cannot act as a consultant, or receive fees as such"? Of course he will do no such thing, but will visit the patient, consult with his professional brother, and return, richer in pocket and in reputation by the process. He will thus, without question, encroach upon the province of the consulting physician or surgeon, and must be willing, *à fortiori*, to recognise the right of the consultant to equal freedom of action in his own lower sphere of independent practice. These matters must, of necessity, be left to find their own level; rules and restrictions must protect all alike, and a one-sided etiquette will remain neglected and dishonoured. A *pure* practitioner does not, of necessity, bind himself merely to *consulting practice*. Such a course, in most provincial towns at any rate, would lead to his practice being soon more select than lucrative, and his skill itself might suffer from want of means of routine practice and observation. This grievance is an unreal and unpractical one, and can be entertained only by those, we fear, in whose minds self-interest has outweighed justice and common sense. The "consultant" is, we imagine, a man who is, or may be, consulted—not one who works solely as a consultant. The term "pure practice" limits the technical nature of his practice, not the free field of public competition; and the general practitioner would only lower his own status by too clearly defining that of his superior. In this, as in other walks of life, a man's work is worth simply what it will fetch, and both pure and general practitioners may be safely left to put their own value on their services. So long as the consultant, keeping loyally to his selected field of medicine or surgery, acts courteously, justly, and honourably to the general practitioner, neither giving his opinion without due reference and respect to that of the latter, nor seeking by any means to attract the patient, to the exclusion of the ordinary attendant, so long must he be held free from all suspicion of blame, and free to conduct his own practice to his own best advantage.

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#### THE SODIUM NITRITE RESEARCH.

No one can regret more than we do that Dr. Murrell's full reply to the charges made against him was so long withheld, and that he did not at once state the plain facts of the case, viz., that the cases he reported were "the first intimation he had had from any source that nitrite of sodium was a toxic agent," and that he "prescribed it only in those cases



in which he was convinced that it would prove useful." These corrections once made, no further charge can be brought against Dr. Murrell of making physiological experiments on his patients, or of inhumanity. But, while we gladly take this opportunity of expressing our regret if any of the remarks we felt it our duty to make have caused pain to Dr. Murrell, we still maintain that, so long as only the original paper and Dr. Murrell's letter in the *Standard* of the 10th inst. (which contained neither of the two above statements) were before us, we were perfectly justified in drawing the conclusion that we did. Our appreciation of the facts then before us was neither hasty nor incorrect: for a similar inference was implied in the repudiation of the investigation by the authorities of two London hospitals, one of whom, at any rate, may be assumed to have seen Dr. Murrell's first defence; and similar conclusions were drawn not only by one of the most thoughtful and well-informed of the lay journals, but by every single one of the many members of the profession whose opinion on the subject we had the privilege of hearing. In fact, the inference was irresistible, and Dr. Murrell has only himself and his advisers to thank if his action was so long left open to misconstruction.

It is, perhaps, hardly necessary to further justify our criticisms; but the following points may be alluded to:—  
1. In their paper the authors, no doubt inadvertently, more than imply that the drug was used experimentally; for the words "observations" and "experiments" are used interchangeably. The "experiments" on cats are also called "observations," and the authors proceed to say, "in addition to these experiments we have made some observations clinically." 2. In the original paper not the slightest hint is given that the toxic properties of pure nitrite of sodium were not well known to the authors at the very outset of the investigation. Indeed, it was difficult to avoid inferring the opposite (though we now know the inference to have been incorrect), from their own quotation of the trials of the drug by Drs. Ralfe and Ramskill, which were made widely known to the profession at a meeting of the Royal Medical and Chirurgical Society in November, 1882, and were published at the time in the medical journals. We now learn for the first time that the investigation to which so much exception has been taken was made more than twelve months ago, and therefore presumably before the results obtained by Drs. Ralfe and Ramskill were made known. If so, Dr. Murrell is to be excused for his ignorance of the toxic properties of the drug, though one might perhaps deplore that he did not publish his own experiences sooner, especially as he assures us that he felt "that to suppress them would be little less than criminal." 3. In Dr. Murrell's paper the experiments on cats appeared to have preceded the clinical observations, and as that would be the natural order in every exact scientific investigation, we, in common with every other reader of the paper, were forced to the conclusion that Dr. Murrell knew of the fatal effects of the drug on animals before he administered it to his patients. This was another misconception which Dr. Murrell should have corrected at once. 4. From the wording of the account of the clinical observations it was impossible for the reader to draw any other inference than that the patients were as nearly as possible physiological subjects—i.e., that little or nothing was the matter with them. What, one could not help asking, was the object of stating that one patient was "suffering from a little rheumatism only," if not to accentuate the fact that the case was to be looked on rather as a physiological than as a clinical observation? As an instance of the very different character of the original statement from that which we now gladly accept, we may

compare the paragraph in which the above sentence occurs with the account given of the same case in Dr. Murrell's explanation:—

"*Lancet*," November 3, 1883, p. 767.

One man, a burly, strong fellow, suffering from a little rheumatism only, said that after taking the first dose he "felt giddy," as if he would "go off insensible." His lips, face, and hands turned blue, and he had to lie down for an hour and a half before he dared move. His heart fluttered, and he suffered from throbbing pains in the head. He was urged to try another dose, but declined on the ground that he had a wife and family.



"*Lancet*," November 17, 1883, p. 880.

The second patient (who returned) was a man who, as it subsequently appeared, suffered only from a little rheumatism, although at the time the symptoms resembled closely those of angina pectoris. He complained of the effects produced by the medicine, and said it made him "feel giddy." He described other symptoms, but it seemed unlikely they could have been produced by the drug, for it had been recommended in so much larger doses, and I had myself just seen a man who had taken the very same dose three times a day for a week without making any complaint. I asked the patient how many doses he had taken, and he said only one. I advised him to try it again, but he declined, adding jokingly that he had "a wife and family."

If Dr. Murrell has successfully met the charge of inhumanity, his defence has not touched—in fact, it has rather given fresh force to—the charge of indiscretion. For, in the first place, we now find that he gave a drug, of which he knew next to nothing except that it belonged to a class of powerful poisons, to eighteen different patients in succession in one week. A careful observer would have tried the drug first upon a single case, perhaps upon himself, and would then have patiently awaited the result before he prescribed it to others. Secondly, having found that the drug given in ten-grain doses produced alarming symptoms in seventeen out of eighteen patients, he forthwith prescribed it in five-grain doses to sixteen patients, ten of whom, as it turned out, were unable to take it, and in one of whom the symptoms induced by it were quite as serious as in any of the previous series of cases. This single case is sufficient to establish the charge of indiscretion, for any careful therapist, finding the drug in ten-grain doses so universally toxic in its effects, would have dropped his dose at once to one grain, and then cautiously increased it until he obtained physiological effects. On this point we must still adhere to our assertion, made a fortnight ago, that Dr. Murrell's mode of conducting out-patient practice is "altogether exceptional, and would not meet with the approval of half a dozen doctors in the metropolis."

A few remarks, in conclusion, on the general character of the research, which it would be inaccurate to term scientific. Everyone who has experience of hospital practice knows that it is impossible to obtain in the out-patient room observations or data sufficiently accurate to warrant any scientific induction worthy of the name; and the hasty generalisations made from the unreliable statements of out-patients, and from carelessly noted impressions, have done more than anything else to retard the extension of just views of therapeutics. Books and journals of therapeutics teem with assertions founded on evidence which true scientific investigators, such as those who are now so successfully exploring the unknown fields of physiology, clinical medicine, and pathology, would not look at. Dr. Law treated successfully one case of epilepsy—a disease known often to benefit for a time under any change of treatment—with an impure sample of sodium nitrite; and this single observation is extolled as "clinical experience of the valuable uses of nitrite of sodium in epilepsy." This kind of unconsidered statement is as little likely to further the cause of science and humanity as the brilliant and eloquent special pleading of the *British Medical Journal*



is to further the cause of Dr. Murrell. A temperate statement in half a dozen lines of the two facts which we have quoted at the beginning of this article, if made as soon as the *Standard* published its criticisms, or indeed in the course of the previous week, would have done more to clear Dr. Murrell's reputation, and to rehabilitate that of the profession, than all this belated rhetoric. But what strikes us more than anything in the article we are referring to, is its entire inability to appreciate and give us and others of Dr. Murrell's critics credit for any honesty of purpose or single-hearted desire to clear the profession of an undeserved slur. Indeed, it would appear that this aspect of the question is for our contemporary non-existent. We are as anxious as the writer of the article in question that no injustice should be done to anyone, but it seems to us a higher object to keep unstained the moral reputation of the whole, than to secure immunity from criticism for any single individual, especially when that individual has laid himself so open to criticism as did Dr. Murrell. We are not alone in regretting the line taken by the journal of the Association, and in thinking that in this particular instance the profession has not been well served by it.

### CHRONICLE OF THE WEEK.

THE past week has been marked by a sad and, to most, an unexpected event. There is in life no more pathetic occurrence than the death of a physician or surgeon at the epoch when the hard and hopeless toil of youth is over, and the success of middle life, which it has won, has just begun. None of his contemporaries worked with more perseverance and with better results than Dr. Hilton Fagge, and none had better promise of taking a leading place in the profession. He was a worthy pupil and successor of the men who have made Guy's Hospital the chief home in England of clinical medicine and pathology. His work, whether at Guy's, at the Evelina, at the societies, or on the annual Committee of Convocation of the London University, was admirable. The profession, and especially the Guy's students, have suffered an irreparable loss in the death of Hilton Fagge.

It really seems more than a pity that such a paper as that which Mr. J. B. Sutton communicated to the Pathological Society last Tuesday, on Tuberculosis (so-called) in Birds, should have been hurried through in so uncere- monious a manner at the fag-end of the meeting. That it was appreciated by those present was evidenced by the quite unusual applause which followed its conclusion, and it is to be hoped that, when Mr. Sutton brings forward his further communication on the same subject, some opportunity will be afforded to members of the Society of discussing a question of such vast importance. It was, we believe, the first attempt on a large scale to identify the tuberculosis of birds as synonymous with that of the human species; and as Dr. Gibbes has ascertained the presence of tubercle-bacilli in the various viscera submitted for his examination, there would seem to be little room for doubt on the subject. The greater portion of the evening was taken up with the account of Mr. Durham's very interesting cases of the development of bone-tissue in the midst of sarcomatous growths, and by the discussion which ensued in reference to them. Dr. Hale White's specimen of atrophied pelvis was no doubt remarkable, but lacked much of the value it otherwise would have possessed, for want of a more complete history. Dr. Angel Money read the notes of a case of necrosis of the superior maxilla in a boy at the termination of an attack of

typhoid fever; and Mr. Eve showed some sections from an unusually large pedunculated adenoma.

At the meeting of the Society of Medical Officers of Health on Friday week, Brigade-Surgeon Nicholson read a paper "On the Water-Supply of Troops in India," which proved much more interesting than might have been anticipated. Papers on which only experts dare speak are usually dull, but Mr. Nicholson treated his subject in a fresher style than experts ordinarily employ. As to the influence of drinking-water as a cause of disease, he was sceptical as to this mode of causation in gout and calculus, neutral in his opinion as regards elephantiasis, and emphatically affirmative in respect to diseases caused by parasitic worms. In the latter case, boiling was a safer preventive than filtering. On the question of the occurrence of true enteric fever amongst native Indians, as to which many have held a negative opinion, Mr. Nicholson declared that, even in non-malarious districts, fever accounted for a large proportion of native mortality. "The question is important in its bearings on the health of English troops, and it is strange that it has so long remained unsettled. Soldiers, especially on newly arriving, are addicted to roaming about the bazaars, and, as the inhabitants of these places live in a particularly dirty way, the water with which the soldiers quench their thirst is so polluted that there is no difficulty in accounting for outbreaks of fever among troops." After alluding to the manner in which the disease could be spread by the pollution of drinking-water on the march, Mr. Nicholson said that the mortality from cholera was largely connected with travelling by road, and the facility with which the railways carried the natives at low fares appeared to have had a material effect in checking the epidemic form of the disease. The reading of the paper was followed by a fairly interesting discussion.

In a letter issued last week, the Education Department administers a severe snubbing to the elementary teachers who had complained that "educational over-pressure" in primary schools was due to the excessive requirements of the Code. Mr. Mundella admits that cases of over-pressure do occur, and that in some instances more is required of individual pupils than they are able to accomplish; he also admits that part of this pressure is caused by irregular attendance during the children's early years, which necessitates over-exertion when they do come to school. But he defends the impeached Code, and hints gently that the fault is with the teachers. "Irregularity," he avers, "is one of the marks of an inefficient school. A good teacher is the best attendance officer in the district." He further states his belief that the course of instruction under the Code can be easily mastered by a child of ordinary health and intelligence, who attends school with fair regularity. If a teacher fails to distribute the work fairly over the whole period of the scholar's attendance, or to teach diligently throughout the school-year, he necessarily resorts to a system of special effort and preparation during the few weeks or months immediately preceding the inspector's visit. This leads to his "keeping in" his scholars for an unreasonable length of time in excess of the ordinary school-hours. This practice is on many grounds objectionable, more especially in the case of younger children. As to home lessons, Mr. Mundella holds that for delicate or very young children they are plainly unsuitable, but in the upper classes of good schools they are, under certain conditions, open to no practical objection. In conclusion, it is maintained that the over-pressure is caused not by the Code itself, which requires much less than is



required of foreign children, but by the inconsiderate manner in which its provisions are used for the purpose of obtaining high grants. Mr. Mundella has not dealt with the objections of the medical critics, which were directed not so much to the quantity as to the quality of primary education. "Their lordships" are still evidently possessed by the German ideal of education, and ignore the fact that "memory," which is the only faculty that can give "results" such as an average inspector can appreciate, is not the only faculty worth educating. The best results do not admit of immediate appraisal. The true "results" will have to be looked for years hence in the records of prisons and hospitals.

"O FOR a world without germs!" How many an ardent hygienist and Listerian must have uttered that aspiration with a sigh as he realised how impossible is his ideal. Probably he does not pause to consider whether the world could get on without them; he has not the open mind of the American humourist who saw wisdom even in measles. The biologist, on the other hand, will be inclined to make much of germs; they came on the scene before man, and will probably outlive him; they are necessary to the balance of life on the earth, and where refuse lies thick are as much in place as dogs in an Eastern city or vultures in the desert. Man's best way of dealing with them is not to fight them so much as to starve them. Cut off their diet and they will disappear.

Among the mountains, we are told by Freudenreich, there are no germs; on Lake Thun there is scarcely one to each litre of air; in a room in Thun Town, sixty in the same amount of air. Contrast these figures with Miguel's results, viz., at Montsouris observatory 760 germs per litre of air, and in the Rue de Rivoli 5500. The reason for this strange difference is doubtless that up in the mountains the germs are starved, whereas in a town street they increase and multiply up to the food limit—the Malthusian theory being, no doubt, true of germs if of nothing else. Expose a carcase on the top of the Schilthorn, and see if the air around it will not soon teem with germs, flocking down on it like vultures out of the blue. The converse of the experiment—the removal of all food out of the way of germs—is what sanitarians are constantly attempting at lower levels, with, as yet, but moderate success.

BUT if you cannot kill germs by starvation, you may do it by poison. Unfortunately, we have not yet discovered a substance that will attack them in the air, which will not also impartially attack the lungs of any individual, be he sick or healthy, who occupies the room in which the attack is made. This much seemed to be admitted in the discussion which followed Dr. Robert J. Lee's interesting lecture at the Parkes Museum on Thursday week. As an executioner of germs, Dr. Lee has made many experiments, and he can report clinical observations to which not even the absurd quixotism of the *Medical Times* can take exception. He still holds to carbolic acid, and, as the result of his experiments, considers that the vapour of a 2 per cent. solution of carbolic acid will destroy germs in the air. But the practical point of the lecture was to warn people against putting their trust in saucerfuls of solution of carbolic acid or Condy placed about a room. They give a false sense of security, and are worse than useless. In short, if we want to strangle germs, we must go after them. They have more sense than flies, and will not come to be poisoned.

THE contributions to this week's French journals are both numerous and important. The *Revue de Médecine* contains a paper on Nephritis determined by Compression of the Ureters in the course of Cancer of the Uterus, and Consecutive Hypertrophy of the Heart, by M. G. Artaud; a case of Primary Encysted Cancer of the Liver, Secondary Cancer of the Lymphatic Glands of the Hilum and Vena Portæ, by MM. Hayem and Gilbert; a note on a case of Chronic Diffuse Myelitis complicated with Apoplectiform Seizures, followed by Death, by M. Girandeau; and the continuation of two papers which appeared in a former number, viz., M. Ollivier's contribution to the history of Typhoid Orchitis, and the experimental researches on the Infectious Disease called Charbon, by MM. Arloing, Cornevin, and Thomas. The *Revue de Chirurgie* contains an article on the Cancerous Taint, by M. Nicaise; a paper by M. Trifaud on Gangrene, and a note on the presence of Bacilli in Surgical Lesions, by M. Bouilly. In the *Progrès Médical* we find a continuation of M. Debove's lectures on Parasitic Tuberculosis, and a report by M. Paul Blocq on a New Dressing for Surgical Purposes, which goes by the name of "hélénol" (it is claimed for it that it is an antiseptic without caustic or toxic properties, and without an unpleasant odour); as well as brief notices of the opening lectures by MM. Sée, Potain, Cornil, J. Simon, Terrillon, Budin, Landouzy, Blanchard, and Duval. In the *Gazette Hebdomadaire*, M. E. Kirmisson describes a case of Cirrhosis of the Liver, and M. J. Meneault records a Quintuple Birth. The *Concours Médical* contains some Therapeutic Indications for certain Diseases of the Skin, by M. Armand Rizat; and some notes by M. Paul Gerne on the Plan to be adopted in a case of Abortion.

THE *Centralblatt für Klinische Medizin* contains abstracts of papers—by Sattler, on Jequirity Ophthalmia; by Scheube, on *Filaria Sanguinis Hominis*; by Veronese and Obersteiner, respectively, on the Relation of Syphilis to Diseases of the Nervous System and Paralysis. In the *Centralblatt für die Medicinischen Wissenschaften* appears an original paper by Bikfalvi, on the Employment of Gastric Digestion as a means of Isolation (of cellular elements in histological researches): abstracts of papers—by Pfalz, on the Reaction of Heat and Electricity on Unstriated Muscular Fibre; by Burckhardt, on the Chemistry and Physiology of the Serum of the Blood; by Schreiber, on Intrathoracic and Intra-abdominal Pressure; and by Onimus, on Electrification of the Uterus—are also published. The *Centralblatt für Chirurgie* publishes abstracts of papers—by Feoktistow, Pokrowski, and Petersen, on the Treatment of Bubo; by David, on Growths in the Naso-Pharynx; by Albrecht, on Hare-Lip; by Clos, on Intestinal Invagination produced by Tumours. The *Centralblatt für Gynäkologie* contains original papers—on Ophthalmia Neonatorum, by Dr. Haidlen, of Stuttgart; and on Inversio Uteri, by Dr. Lauenstein, of Hamburg: abstracts of papers by von Nussbaum and Eder, respectively, on Ignipuncture, are of interest. In the *Berliner Klinische Wochenschrift* is published an address by Dr. Kirn on Chloral Psychoses; the papers by Dr. Semon on Laryngeal Paralysis, and by Dr. Bidder on the Relations of Alkali Foods to Tuberculosis, are continued and concluded. Dr. Karl Braun von Fernwald concludes in the *Wiener Medizinische Wochenschrift* his account of twelve cases of Cæsarian Section; Dr. Herz continues his critical sketch of the Modern Medication of Diphtheria; Dr. Patzelt, of Bucharest, communicates a case of Gastrotomy.

THE current (November) number of the *Archives Générales de Médecine* is more than usually interesting as to original communications. Dr. Kirmisson contributes an article on the



"Influence of Traumatism in the Development of Hydatid Cysts." After reviewing previous work on the subject, most of which seemed to indicate that there is a pretty constant element of traumatism, he contributes a further personal case "of hydatid cyst in the liver, the evolution of which was intimately associated with an accident that had befallen the patient." Contusions of the liver, or ruptures (slight or severe), can hardly take place without some hæmorrhage, and it is argued that with the blood escape also the embryos of the *tænia*. It is proved by experiment that the fluid portion may be injected into the veins of dogs without leading to the development of hydatids, and, this being so, the explanation here offered seems both reasonable and probable. Dr. Parinaud discusses "Interstitial Keratitis and Hereditary Syphilis." He commences by saying that "the hereditary syphilitic origin of interstitial keratitis, admitted by Hutchinson, has been seriously disputed, especially in France. . . ." A list of thirty-two cases with family history follows; in twenty-three cases there is an admission of syphilis, in seven others syphilis is probable, in one it is doubtful, and in one it is negatived. The author thinks these statistics will settle the question in the future. After a critical analysis of his cases, he concludes that this form of keratitis must be considered as the manifestation of syphilis, attenuated in the parents; that it may show itself fifteen or even twenty years after birth, in subjects who have presented no other specific manifestation; that it is frequently associated with developmental troubles in the teeth, having a like cause; that it is difficult to class the disease among specific lesions; and, finally, that it may be due to other than a syphilitic cause. Dr. Netter has an article on the "Irregular Development of the Arteries as a Cause of various Morbid Conditions." He says, "The affections of arteries play an important part in pathology; they act less often directly than by the intermediary of the organs to which they are distributed." In support of his theory, he analyses the effects of congenital atresia, or absence or modification in size of the vessels on the various organs of the body, and certainly makes out a *prima facie* case in favour of his thesis. Dr. J. Comby contributes the first half of a paper on "Pulsating Empyemata," which is of great interest and worthy of a more extended notice. This we shall defer until the article is complete.

#### THE HISTORY OF MEDICINE.

THE appearance of Dr. Theodore Puschmann's admirable history of the Vienna School of Medicine coincidently with the publication of Dr. Payne's conscientious article in the sixteenth volume of the "Encyclopædia Britannica" suggests the question why the history of medicine has been so absolutely neglected. Other sciences have had their historians, but until Dr. Payne's essay appeared there was no single comprehensive account in the English language of the evolution of medicine as a science, and almost the only persons ever known to study it were inaugural lectures at their wits' end for something to say. If there is nothing that can be made so wearisome by a dull lecturer or a vapid author as the dry bones of medical history, it is equally true that in the hands of an able and sympathetic author there is nothing that could be made so interesting. The able monographs on the history of certain surgical subjects published some years ago by Dr. Albert, of Vienna, were a proof of this; and some day, no doubt, an author will arise in this country who will carry us along with him while he traces the development of medicine from its dark and questionable beginnings up to its present honoured position. A worthy history of medicine would not be a history of medicine alone, for as medicine has been

justly termed "the mother of the sciences," an account of its development would show how chemistry, physics, botany, and even philosophy, have all received their initial impulse from the efforts of man to alleviate the sufferings of his fellows. There is one explanation why so little attention has hitherto been devoted to the subject, which is a little consoling. History does not usually flourish in times of great activity. While discovery is progressing, men are looking forward too intently to find time for looking back. Flourishing arts have seldom found their historian till they were already beginning to decay, and possibly no great medical historian will arise until the progress of medicine has been arrested, and men are content to dwell rather on the conquests of the past than on the achievements of the future.

#### THE LATE DIFFICULTIES AT ST. JOHN'S HOUSE.

RATHER late in the day, when the heat of public feeling has somewhat diminished, and only those immediately concerned continue to have the facts fresh in their memory, the Council of St. John's House append to their report for the year their version of justification of their action during the summer months. It may be questioned whether any justification was needed further than that already furnished unwittingly by the Sisters themselves. The present pamphlet (much shorter than the former) proves the correctness of the deductions formulated in the article in the *Times* last August. It is calm and dignified in tone; pathetically forgiving in some passages; but as a whole its plain statement of facts can leave no doubt as to the urgent need for the radical changes then effected. Letters now published for the first time show that prompt action was the only course open last July. Efforts were being made to tempt the nurses from their duties by offers of better clothes and higher wages, and forcible language was not spared in criticising the authorities of the institution. The Council of St. John's House is certainly to be congratulated on having firmly maintained its principles without having been compelled to stop work even temporarily.

#### AN UNUSUAL CASE OF TETANUS.

MR. PAYNE, the Southwark Coroner, held an inquest on Monday last on the body of a boy, aged nine years, who had died in Guy's Hospital from tetanus two days after a fall from a ladder. Mr. Dendy, the House-Surgeon, in his evidence, said that they had been unable to trace the least scratch or wound, or even sign that the deceased had had a fall, except that pressure about the neck appeared to give him pain. Nor did the autopsy show any injury, either local or to the spinal cord or elsewhere. The occurrence of tetanus without breach of surface is very unusual in this country. When it does, however, take place, it usually follows blows or falls on the back of the head or on the spine. The exact percentage of such cases is not known. In our most reliable statistics (those from Guy's Hospital) it will be seen that twenty-three cases of tetanus occurred out of a total of 3668 surgical lesions, with one case under the mixed heading of "Injuries and Contusions." The author (Mr. Poland), however, says "there is scarcely a single lesion which may be said to be exempt from its attack, from the simple bruise or graze to the most severe compound fracture"; but he does not further particularise. It is therefore difficult to know whether to regard this particular case as idiopathic or traumatic tetanus; and, unfortunately, we get no aid from the pathology of the disease, for it is considered by some as due to sepsis, and by others to peripheral nerve-irritation. It would be impossible to exclude either or both these conditions in any given case, but



the latter doctrine would best fit with what we at present know of this case. We are not aware of any points showing that tetanus is ever due to direct lesion of the spinal cord. The full report of the case would be of great interest.

#### INCOMPLETE FRACTURES OF THE CLAVICLE AND SCAPULA.

At the recent meeting of the Pathological Section of the Irish Academy of Medicine, Dr. E. H. Bennett brought forward a specimen of this rare result of an accident. The bones were taken from the body of a young man, aged nineteen, who was killed by some masonry falling upon him. The clavicle presented at its sternal end a complete dentate fracture, and at its middle an incomplete fracture involving about half the thickness of the bone. The base of the coracoid process of the scapula presented a fracture of similar character. Dr. Bennett pointed out that his case proved the possibility of a green-stick fracture occurring in the clavicle, which had been denied by some writers; and it also proved that a green-stick fracture was not confined to childhood, as had often been asserted.

#### THE FRENCH CHOLERA COMMISSION.

M. STRAUSS has recently made a preliminary report to the Société de Biologie on behalf of the French mission to investigate the cholera in Egypt. The report includes the study of twenty-seven autopsies which were performed within half an hour of death, so that putrefaction may be excluded as a cause of any of the changes which they found. Examination of the alimentary canal gave the following results:—The stools contained rice-like bodies, formed by collections of epithelial cells affected with that special form of necrosis known as "necrosis of coagulation"; the cell-contents were turbid, and the nuclei would not take carmine or the aniline dyes. Microscopically, in the contents of both the stomach and alimentary canal were a great many microbes. There was superficial desquamation of the mucous membrane of the small intestine, most marked at its lower end, and the walls of the intestine were found to be infiltrated with microbes, bacteria, and micrococci of various shapes and kinds—some rather long, resembling the microbe of charbon; others, in the submucous tissues, exactly like tubercle-bacilli, only rather smaller. The examination of the liver, spleen, kidneys, and mesenteric glands gave negative results. The blood, however, was found to be profoundly modified; it would not coagulate, the red corpuscles sinking to the bottom, leaving a clear supernatant serum. Microscopically, the leucocytes were in marked excess, and highly granular, the coloured corpuscles being scattered about instead of gathered into *rouleaux*. Between them were seen small, very pale, elongated bodies, contracted in the middle, extremely slender, recalling the shape of the lactic ferment. With the aid of heat these bodies underwent proliferation and arranged themselves in little chains. The serum of the blood was mostly found to be extremely acid, and once the fluid in the pericardium was noted to be acid. Contrasting the results of the French expedition with those of the German, there are two points of difference. Koch could find nothing in the blood. M. Strauss found small, badly-refracting bodies, which did not take the colouring matter of the dyes well, and which rapidly multiplied on the addition of heat, the multiplication taking place best in the bottom part of the tube—that is to say, in the part least exposed to the air. Cultivation experiments with these wholly failed; still, taking into consideration the general character of cholera, there is a strong probability that this discovery of M. Strauss and his colleagues is a step in the right direction. Koch described what he believed to

be a characteristic microbe in the coats of the intestine. The Frenchmen have likewise seen this microbe, but consider it the result of a secondary invasion, for they say that it does not belong exclusively to the submucous coat of the intestines; that its presence is not constant, being only noted in certain conditions; and, further, that it is entirely absent in the most malignant forms of cholera, and that it is only observed after the morbid process has lasted from ten to fifteen days, and then conjointly with other microbes. These reasonings do not appear to be conclusive; it is clear that further researches are necessary before the point can be cleared up. It only remains to be mentioned that the Frenchmen have met with no more success than Koch did, in their cultivation and inoculation experiments, for they have not once succeeded in conveying cholera to animals.

#### SANITARY IMPROVEMENTS IN NOTTINGHAM.

THE correspondent of a Nottingham journal gives a striking account of the complete sanitary works which have been organised in the East Croft. Probably none is of greater importance than the efficient system adopted for dealing with the contents of dry ashpits, refuse from middens, vegetable market refuse, and rubbish of all kinds, amounting to 260 tons weekly. This was formerly deposited in the East Croft, but it is now partly converted into slag by the heat of the destructor, and partly into manure by the machine described as a "mortar-mill." There are, in addition, a well-arranged mortuary, and every appliance for the health and comfort of the workmen engaged. The completeness of the sanitary works in the East Croft is admitted to be due chiefly to the superintendence of Dr. Seaton, the Medical Officer of Health; but the whole organisation is under the active supervision of the Sanitary Authority.

#### NEPHRECTOMY BY ABDOMINAL SECTION.

ON Wednesday, November 14, Mr. Knowsley Thornton performed nephrectomy by Langenbüch's incision, at the Samaritan Hospital. The patient was a young woman, with a history of seven years' renal trouble. The kidney (right) was much enlarged, sacculated, and full of pus and putty-like material. The bladder end of the ureter was brought outside the abdomen and fastened in the lower angle of the wound. Mr. Thornton was the first to suggest this modification in the operation, and thinks it of great importance in avoiding septic infection. The patient is convalescing most satisfactorily, without fever or trouble of any kind, and all the reflex urethral and bladder symptoms disappeared immediately after the operation. This is the sixth consecutive successful nephrectomy performed by abdominal section by Mr. Thornton at the Samaritan Hospital.

#### FIRES IN HOSPITALS.

A SHORT time ago a fire occurred at St. Mary's Hospital, which would probably have increased to a very serious extent had not the arrangements for the extinguishing of fire at this institution been in good working order. Smoke was seen issuing from the floor over the engine-room, and it was discovered that some of the woodwork was on fire. In various parts of the building are placed buckets filled with water, several of which were promptly emptied upon the smouldering woodwork, and the fire was thus extinguished. Although a hospital or other institution may be well supplied with every modern appliance for dealing with fires, and especially for dealing with them in their early stages, yet it by no means follows that such appliances are kept in working order; in fact, we have known such apparatus to be attached to their places by padlocks, the key being in the possession of some "respon-



sible" official. Such a plan is, of course, radically bad. Everything—hose, taps, etc.—should be in readiness and accessible for *immediate* use; buckets should be kept *filled with water*; every servant of the institution, and in a hospital every resident medical officer also, should know how to act in the event of so serious a calamity as the occurrence of a fire; and we strongly recommend a periodical "fire drill." The importance of this subject cannot be overrated, and it is especially desirable that institutions where the sick, or the crippled, or any other class of more or less helpless people are housed, should be especially protected from the horrible results of fire.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-fifth week of 1883, terminating November 6, was 962 (498 males and 464 females), and of these there were from typhoid fever 30, small-pox 5, measles 11, scarlatina none, pertussis 6, diphtheria and croup 34, erysipelas 2, and puerperal infection 3. There were also 50 deaths from acute and tubercular meningitis, 162 from phthisis, 38 from acute bronchitis, 73 from pneumonia, 91 from infantile athrepsia (28 of the infants having been wholly or partially suckled), and 30 violent deaths (22 males and 8 females). Deaths from epidemic diseases continue stationary and in moderate amount; while bronchitis and pneumonia, especially the latter, show some increase, and deaths from athrepsia have risen from 69 to 91. During the week there were 1233 births, viz., 654 males (472 legitimate and 182 illegitimate) and 579 females (414 legitimate and 165 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 59 males (38 legitimate and 21 illegitimate) and 36 females (26 legitimate and 10 illegitimate).

#### DEATHS FROM ERYSIPELAS FOLLOWING VACCINATION.

A PROTRACTED inquiry was held on the 13th inst., by the Coroner for Bury St. Edmunds, at Great Cornard, on the body of an infant who became ill soon after vaccination and died. Another child, who had been vaccinated with the same lymph, had died previously. After the death of the second child (the subject of this inquest), a Local Government Board inquiry was solicited, and Dr. Airy went to Great Cornard to investigate the circumstances—an inquiry which was not completed when the inquest was held. Counsel appeared at the inquest for the parents of the deceased child (representing, evidently, the Society for the Abolition of Compulsory Vaccination). Dr. Mason, the public vaccinator, deposed that the father of the first of the three children who had died after vaccination, a man named Elliston, had been suffering for some time from a wound in the leg, and that subsequently he went into the hospital. The lymph used for Elliston's child was from a child whose parents are perfectly healthy and well. The same lymph had been used for other children without any evil results. The lymph used for the child, the subject of this inquiry, was taken from Elliston's child. Dr. Mason visited the deceased after vaccination, hearing that it was ill, and found it suffering from decided erysipelas, which spread rapidly and ended fatally. He had attended Elliston's child after vaccination, and it had also died from erysipelas. He was of opinion that infection was present in Elliston's child at the time of vaccination, but he did not actually see it then; and that the lymph used from the child was the means of communicating the erysipelas to this deceased child. He thought the public vaccination station was not a suitable place, and it was in an unsanitary condition. He recorded the cause of death as erysipelas, deeming reference to vaccination unnecessary. Dr. Airy ob-

served, with regard to the tirade of counsel against the Local Government Board, that they were carrying out the provisions of an Act of Parliament expressing the will of the nation. The coroner, in summing up, remarked that the case was not an ordinary one. The fact of three children dying from erysipelas arising from vaccination made him think it was one which ought to be inquired into, and if the Board of Guardians had provided a more suitable place for vaccination, some good would have been done. No one was to blame in respect to the deaths, or guilty of negligence. They would say, by their verdict, whether erysipelas was caused as pointed out by the medical evidence, or was conveyed by vaccination, or communicated to this child by vaccination from a child who probably had it in her system, and who died of the disease. The verdict was, "That the deceased died from erysipelas conveyed by vaccination from a person suffering from erysipelas." The inquiry was a protracted one, and appears to have been conducted by the Coroner, under very trying circumstances, with praiseworthy firmness and fairness.

#### IMPORTANT ACTION AGAINST THE GOVERNMENT IN IRELAND.

MEDICAL circles in Dublin have this week been much interested in the action brought against the Government by Mr. William Ireland Wheeler, President of the Royal College of Surgeons in Ireland, to recover £1150 fees for attending Mr. Carter, of Shaen Manor, county Mayo. The case was listed for trial last Wednesday, the 21st inst. The facts are, briefly, that Mr. Carter was the victim of an agrarian outrage in the spring of 1881, and Mr. Wheeler afterwards attended him according to instructions issued by the late Under-Secretary, Mr. Thomas Henry Burke, who was assassinated in the Phoenix Park on the evening of May 6, 1882. The suit is brought as against the Queen, and Her Majesty has issued the usual fiat—"Let justice be done." Mr. Wheeler has secured a strong bar—Messrs. Samuel Walker, Q.C., John G. Gibson, Q.C., John Monroe, Q.C., and Hemphill. The Government will be represented by the Attorney-General, the Solicitor-General, and Mr. Dodd (instructed by Mr. W. Lane Joynt, D.L., Crown and Treasury Solicitor).

#### THE AUTOMATISM OF CARDIAC MUSCLE.

THE theories of cardiac rhythm founded on the classical experiments of Stannius, that rhythmic action is in every case dependent upon the presence of ganglion-cells in some part of the fibre, have latterly undergone much modification. Evidence has been accumulating, showing that well-fed muscular fibre has the power of spontaneous rhythmic action. For involuntary muscle this property must be conceded without a doubt. With regard to cardiac muscle, Gaskell formulates the following laws:—"The power of independent rhythmical contraction decreases regularly as we pass from the sinus to the ventricle"; and, "the rhythmical power of each segment of the heart varies inversely as its distance from the sinus." Gaskell's recent very important researches on the "Innervation of the Heart" establish, amongst other important points, that in the tortoise's heart the isolated ventricle has much more capacity for automatic rhythm than in that of the frog, the extra chemical, mechanical, or electrical assistance required by the latter to set going spontaneous rhythm not being required in the case of the tortoise. If strips of ventricle muscle be suspended in a muscle-chamber, and an induced current sent in every ten seconds, just strong enough to cause a contraction, and if at intervals a very weak induced current (not strong enough itself to cause a contraction) is sent through, and the effect observed, it is seen that gradually the muscle acquires the



power of contracting well, though at first there are evident "blocks" to the passage of the contraction-wave, which, consequently, does not reach all the way down the fibre. When contracting well the current may be removed, and the muscle-strip will go on spontaneously for as long as twenty-eight hours. The contractions are, therefore, clearly "myogenic" and "automatic," since there are no nerves present. Electrical stimulus is not needed to set going this automatic rhythm, since a strip of ventricular muscle suspended in a muscle-chamber begins to contract of its own accord after a while—it may be three or four hours—though the beats are not so regular as "in the one that has been taught." The importance of this evidence in favour of "automatic rhythm" cannot be over-estimated.

#### THE LATE DR. HILTON FAGGE.

A CROWDED meeting of students was held on Tuesday in the anatomical theatre at Guy's Hospital, and the following resolution was passed:—"That this meeting of Guy's students do request the Senior House-Surgeon and House-Physician to convey to Mrs. Fagge their heartfelt sympathy with her in her bereavement, and desire to express their sense of the great loss which they as students, and the profession generally, have sustained in the death of one who was so eminent a physician and so kind a teacher."

#### GELSEMIUM SEMPERVIRENS.

Is gelsemium a useful and practical remedy for neuralgia? On this point we think medical opinion would be considerably divided. Some claim to have used it with success; others have found it constantly to fail. Some will speak of it as a drug in whose efficacy they have much confidence; others consider it merely as one of many such medicines which may or may not be tried, but without any reasonable expectation of result. Now, apart from what we know as to the physiological effects of the drug upon different parts of the nervous system, and setting aside the nature and applicability of the cases in which it is prescribed, we think there are two points as to which further information should be forthcoming. First, What is the best preparation of gelsemium? It has seemed to us, from experiments made, that much of what is sold as tinct. gelsemii is without any physiological action whatever. The drug is, of course, of American origin, and, if we may trust our American *confrères*, the fluid extract, prepared exclusively from the *green* plant, is the only reliable preparation. Secondly, as to dose. This, of course, can only be determined by therapeutical experiments with a preparation of known and constant strength. It is remarkable at present to learn in what varying doses this drug is prescribed. Usually it is given in doses of five to ten drops of the tincture, but some will boldly give doses of one, two, or three drachms, and, as they profess, with good results. An American author in the *St. Louis Courier of Medicine* prescribes the fluid extract in *one-quarter to one-half drop* doses every half-hour. It is certain, we believe, that the drug must have definite physiological effects before a neuralgia can be relieved. These effects are exhaustively described in Ringer's "Handbook." But there is need of further and more careful clinical experiments as to the relative potency of the different preparations in the market, and as to the comparative dose in which each may be safely and advantageously prescribed.

#### A NOVEL TREATMENT OF TETANUS.

AN instance of recovery from tetanus under somewhat novel treatment has been recorded in the *Philadelphia Medical News*. The tetanic symptoms resulting from a punctured wound of the foot were most marked. Chloral,

bromide of potassium, and chloroform had been freely used, without apparent beneficial effect. Dr. Ameden then, from physiological deductions, determined to try the venom of the rattlesnake. This was injected subcutaneously on two occasions; the tetanic spasms and rigidity ceased, and were replaced by extreme prostration, followed, however, by a fairly rapid recovery.

#### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE price of the new Catalogue of the Library, for all Fellows elected since 1879, has hitherto been 12s. The Catalogue consists of three volumes; in the first two the books are arranged according to authors, alphabetically, while in the third volume they are arranged according to subjects. It is known that Mr. Wheatley devoted some years to the work. Not only is it rich in numbers, but it abounds also in cross references, which are of great service to those who may be engaged in the study of any particular subject. The Council, with a view to extend the utility of their library, have decided that in future the price shall be reduced to 7s. 6d.

#### LATHYRISM AND BERIBERI.

POISONING by the use of the lathyrus is probably almost unknown in England, but appears to be far from uncommon in France. The lathyrus belongs to the order *Leguminosæ*, and is used as food both for man and animals. The berry is about the same size as a pea. The state produced by this has been named lathyrism, on the same principle as that produced by ergot is called ergotism. A recent writer having stated that lathyrism and beriberi were identical diseases, M. Pierre Marie has set himself the task of proving that such is not the case (*Progrès Médical*, No. 43). In a very general way they resemble each other, in that in both diseases there is paraplegia; but on comparing the symptoms the contrast becomes very obvious. Thus, in *lathyrism* the body of the patient is inclined forwards, the legs being rigidly extended, and not flexed at the knee. The toes are flexed, and are the first to touch the ground in walking. There are convulsive twitchings in the muscles of the calves. The foot is directed downwards, and slightly rotated inwards. Almost all patients present excoriations or wounds on the dorsal aspect of their toes. The tendon reflexes are markedly exaggerated, and the foot-phenomenon is present in a high degree. There is no muscular wasting, and no apparent alteration in the limbs except the sores above alluded to. There are no signs of altered nutrition. In *beriberi*, on the other hand, the legs are always flaccid, none of the joints being stiff. In walking, the patient's legs give under him; the foot does not leave the ground progressively, as in ordinary persons, but all at once, and is put down again suddenly, and quite flat; the legs are separated; the point of the foot is sometimes turned in, and sometimes out. The patients have much difficulty in keeping their shoes on their feet. The knee reflex is generally absent; it is never exaggerated. Muscular wasting is always present. In extreme cases the skin of the legs becomes atrophied, dried, corrugated, covered with a branny desquamation, and to a great extent loses its elasticity. In both disorders there are urinary troubles, such as retention or incontinence, and loss of sexual function seems to be tolerably constant. Only two points remain to be noticed, both relating to beriberi—one is the existence of muscular cramps or contractions, more or less prolonged, but nevertheless temporary, occurring in the calves, and coinciding with the diminution or abolition of the tendon reflexes; the other is the muscular wasting which is peculiar to beriberi, and which is believed to depend upon a multiple subacute neuritis due to the specific poison rather than to a spinal-cord lesion.



TRICHINOSIS has broken out in another German town, Thorn, and fifty persons have been attacked by it.

A MILITARY medical school is to be established in the Château Pharo, recently ceded by the ex-Empress Eugénie to the town of Marseilles.

THE number of deaths from cholera in Alexandria during the second outbreak—that is to say, from October 18 to November 16—amounts to forty-six Europeans and fifty-four natives.

THE funeral of the late Dr. Fagge, which will be of a strictly private character, will leave Grosvenor-street on Saturday, November 24, at 2.15 p.m., to arrive at Norwood Cemetery about three o'clock.

THE *Journal of the British Dental Association* states that Mr. T. F. Ken Underwood is about to resign the deanship of the Dental Hospital School, after discharging the duties of the office for eight years, with great credit to himself and still greater benefit to the School.

ON Monday last, Dr. Alfred Carpenter and Prof. Corfield, as part of a deputation from the Council of the Sanitary Institute, attended a meeting of the College of Physicians in Dublin, convened for the purpose of making preliminary arrangements for next year's Sanitary Congress and Exhibition in Dublin.

A SERIOUS epidemic of diphtheria has broken out at Bodfordd, a little village in Anglesea. Eighteen persons have been attacked, of whom six have already died. The sanitary condition of Bodfordd is said to be deplorable. An outbreak of diphtheria has also occurred in the household of Lord Richard Grosvenor, and four of his children and four servants have been attacked.

THE Field-Marshal Commanding-in-Chief has conveyed his thanks and praise to the officers composing the medical staff in Egypt for their fearless and untiring services during the late cholera outbreak among the British forces serving in that country. The success which attended their ability and zeal, in stamping out a disease which at one time threatened to reduce the battalions more than actual warfare, has called forth His Royal Highness's special admiration and highest commendation.

AT the first meeting of the Medico-Chirurgical Society of Edinburgh, on November 7, the following gentlemen were unanimously elected as office-bearers for the ensuing year:—President: Dr. Henry D. Littlejohn. Vice-Presidents: Prof. Fraser, Dr. David Wilson, Dr. J. Batty Tuke. Councillors: Dr. P. Heron Watson, Dr. Byrom Bramwell, Dr. Buist, Dr. Ronaldson, Dr. Geo. Hunter, Dr. Jas. Jamieson, Dr. Graham Brown, Dr. J. M. Cotterill. Treasurer: Mr. A. G. Miller. Secretaries: Dr. MacGillivray, Dr. James. Editor of *Transactions*: Dr. William Craig.

THE arrangements for the medical inspection of the municipal schools of Paris are about to be reorganised. One hundred and twenty-six medical inspectors are to be elected at a yearly stipend of 800 frs. each; and every school will be visited twice a month, irrespective of special visits in cases of urgency. After each visit the inspector will send a report to the mayor of the arrondissement, who will, in his turn, supply a summary to the administration every quarter, and a detailed report every half-year. The annual cost of the inspection will be over £4000.

## THE REPORT OF THE ARMY MEDICAL DEPARTMENT FOR 1881.

### [SECOND ARTICLE.]

THE members of the profession, whether military or civilian, are by no means likely to forget the outcry raised against the Medical Department during and at the close of the Egyptian campaign. Nor is it likely that the Report of the War Office Committee, which investigated the complaints, will be completely buried in oblivion. But that enormous Blue-book is bewildering in its very vastness, and confusing in its assertions, contradictions, and insinuations, so that the reader gets but a faint notion of the gross injustice done to the Medical Department by combatant officers who were jealous of the "position" of their medical brethren, and by some war correspondents who listened to second-hand gossip, and found in the cry against the doctors an exciting theme to swell the sale of the daily papers. Justice never has been done the Army Medical Department, although nothing is more clear to all who have studied the report of Lord Morley's Committee than that a most ample apology was due to it. The consideration of the Report in the House of Commons was postponed from month to month during the past session, until at last it was declared too late to consider it at all; and the profession had to be content with the assurance of the Secretary of State for War and other high authorities that the individual members of the Army Medical Department did their duty well. Next year, indeed, there is to be an opportunity of reviewing medical matters in the House. Happy are they who have faith and hope enough to wait for it. We confess that we have not, and would rather trust for the vindication of the Department to the Medical History of the War in the Appendix of the present Blue-book. It is more than a plain account of medical proceedings; it is a complete vindication of the Army Medical Department. It is also an exposition of the want of confidence shown by the military authorities to the doctors during the progress of the war; it is a remonstrance against the economy of the War Office, which has left the Medical Department in some respects crippled and inefficient; and, in conclusion, it points out how present defects may and must be remedied, if the care of the sick and wounded in the future be really a matter of interest to the public, now that the nation is at peace and the victims of past wars have been buried in oblivion. Sir J. Hanbury tells of the preparations made for the war by the Army Medical Department. The staff of medical officers consisted of 163 of all ranks, the Army Hospital Corps was 820 strong, and in addition twenty-four nurses were originally sent out for service. Provision was made by the Department for the various lines of assistance to the sick and wounded, commencing with the bearer companies with mountain equipment, and the medical officers of corps. Behind the first line were the mobile field-hospitals; and the third line consisted of the stationary field-hospitals. The base-hospitals were never intended to be formed on Egyptian soil, but dieted hospitals were established at Gozo and Cyprus, while the steamship *Carthage* was intended for the first base-hospital on the seaboard. Transports were held ready also for the conveyance of the sick to the various base-hospitals, or, if necessary, to England.

The forethought of the Army Medical Department had provided a number of special articles to meet the extraordinary requirements to be expected in a country like Egypt, such as goggles, veils, mosquito-nets, wire dish-covers, refrigerators, ice-machines, etc., in addition to all the modern appliances for the treatment of wounds antiseptically. Surely all these arrangements are not indicative that the Department was behind the age! and one can only wonder at the unworthy sneer of Lord Wolseley, when he implied, in his address to the students of Charing-cross Hospital, that the medical affairs of the Army were carried on now according to the old system in existence during the Peninsular Wars. Such an assertion is as wild as it is baseless. It meets with its refutation in the Sanitary Report by Deputy Surgeon-General Marston, who, alluding to the manner in which Egyptian ophthalmia was "stamped out," says, "If called upon to furnish a practical illustration of



what had been accomplished by the great sanitary changes that have taken place since the Crimea, it is probable that no more effective one could be cited than that of the prevalence of ophthalmia now and then." He says that anyone with a knowledge of the British Army can recognise the vast improvement. The exception proves the rule, and Lord Wolseley appears to be the exception.

The instructions issued by the Director-General and by the Surgeon-General were clear and comprehensive, and seemed calculated to provide for every contingency, *with one exception*. We cannot find that it was ever supposed possible that medical officers should assert a superiority to the regulations of the Service by assuming a direct power of purchase, and rendering themselves independent of the established authorities when supplies fell short! We can only find that medical officers were required to report all deficiencies to the surgeons-general. This is the one point which was vulnerable in the attack made by Lord Wolseley on the Medical Department in his evidence given before Lord Morley's Committee. He would have expected the Department to rise superior to the base consideration of spending other people's money, and is sure the public would have pardoned the liberty. All we can say is—*Wait!* The War Office has yet to frame new regulations based upon the Report of Lord Morley's Committee, and we shall see if the power of unlimited purchase is one of the rights and privileges to be conceded to the doctors in time of war! We are glad to say that the services of individual medical officers have been universally acknowledged. Few people know how hard the doctors worked. The Surgeon-General tells us, with regard to the illness of Brigade-Surgeon Veale, "The extraordinary mental anxiety and bodily fatigue which were incurred in the discharge of his duties were undoubtedly the cause of his health breaking down. Indeed, these remarks apply equally to the whole hospital staff, many of whom were invalided from want of sleep and overwork." The men of the Army Hospital Corps appear to have been equally overtaxed, having to perform incessant fatigue duties, in addition to their proper work of attending to the sick and wounded in hospital.

We have said that Sir J. Hanbury's Report exposes certain shortcomings on the part of the General and his staff, which tended to embarrass the action of the Medical Department in Egypt. Directions were given in General Orders which it was *impossible* to carry out, the system upon which the medical organisation was based not admitting of it. We hear of horses and mules which had been "told off" to the Medical Department being employed on the line of railway. This, no doubt, was unavoidable. The fighting men and their needs must be the first consideration in war; but we cannot find an excuse for the delay which only permitted the Medical Department at the *eleventh hour* to become aware of change of plans. We cannot understand even now why Cyprus was abandoned so unexpectedly, and the doctors informed at the very last moment that the "base" hospital must be given up. We all know that, when the fighting was over, great complaints were made of the hospital establishments formed at Cairo. We may learn from this Report what tremendous difficulties the doctors had to contend with in that city. We have heard of the indignation of Lord Wolseley at the neglect of obvious precautions, of his sympathy with the complaints of the patients, and of his scathing remarks. The curious part of the matter is that the patients did not complain, and not a medical officer appears to have heard Lord Wolseley's observations. We can only suppose that his feelings were too deep for words. Sir J. Hanbury says, with regard to the Citadel Hospital at Cairo, "I avail myself of this opportunity of recording my deliberate opinion that no patient in that hospital was at any time placed in an unfavourable position, as regards his treatment or recovery, from any causes connected with its equipment or general medical arrangements." A great many complaints were made by combatant officers before Lord Morley's Committee, and particularly of their being obliged to go to hotels when sick, incurring, of course, great expense thereby. We find, to our astonishment, that Sir J. Hanbury applied for leave to establish an officers' hospital, and that the application was refused! We wonder whether Lord Wolseley had suddenly become economical, and dreaded the expense? We have said that Sir J. Hanbury's Report is in some sort a remonstrance. He points out the impossibility of carrying out the orders

of the War Office without the assistance of a larger number of subordinates directly under medical authority. With regard to sanitary matters, he says "that the sanitary officer submits his opinions, advice, and recommendations day after day, but with comparatively little result, because there is no organised conservancy corps for executive work in connexion with the Sanitary and Quartermaster-General's Department." He refers to the present bad system by which military hospitals are equipped by the Commissariat Department in time of peace, and by the Ordnance Department in time of war. "It is difficult," he says, "to imagine any arrangement more unsatisfactory than this; and so long as it continues, the Medical Department cannot be held responsible for the equipment of the hospitals."

One word more on the great question of the power of the purse. Sir J. Hanbury says—"There should be on the staff of the Surgeon-General-in-Chief of the field force an *experienced commissariat officer*, and he should be empowered to purchase locally whatever the Surgeon-General may consider necessary for the well-being of the sick and wounded." Surely this suggestion will commend itself to the War Office as being infinitely preferable to permitting medical officers recklessly to purchase all they fancy, in the hope that a generous British public will condone all offences against their pockets while the sound of the trumpet is still in their ears!

We cannot doubt that the Medical History of the Egyptian War will bear fruit, but we can hardly expect that the authorities will consent to make the Army Medical Establishment *complete*. It should doubtless have its separate transport, conservancy corps, and commissariat. But, as the Duke of Cambridge frequently remarks with regard to Army reforms, "It is a question of money, gentlemen—simply a question of money."

## ABSTRACTS AND EXTRACTS.

### ACTION OF COMPOUNDS OF NICKEL.

THE salts of nickel, and more particularly the bromide, have recently been investigated by Prof. Da Costa, of Philadelphia (*Medical News*, September 29, 1883), and his results, given avowedly in an introductory form, may well stimulate further research. Of the sulphate and chloride he does not speak with any degree of certainty. Tolerated in small doses, they cause giddiness and nausea when pushed beyond five grains. They appear to be most serviceable in cases of obstinate diarrhoea. He speaks of the sulphate as "something of an anodyne," and of the chloride having a "calming influence" on the nervous system. The bromide, however, gave more satisfactory results, doses of five to seven grains producing all the effects of full doses of the other bromides. This is clearly to be ascribed to some special action of nickel bromide, the proportion of bromine present being less than in the corresponding salts of potassium and sodium. Prof. Da Costa regards the drug as of probable utility in cases of epilepsy unaffected by the more common bromides.

### UTERINE MILK.

A RECENT number of the *Zeitschrift für Geburtshilfe und Gynäkologie* contains an article by Dr. G. von Hoffmann, of Wiesbaden, in support of the doctrine advocated by Ercolani, and to a certain extent by Dr. Braxton Hicks, viz., that the foetal villi in the placenta do not float naked in the maternal blood, but are surrounded by cells whose function it is to secrete a special fluid serving for the nutrition of the foetus, and called uterine milk. Dr. von Hoffmann believes that he has been able to extract this fluid from the human placenta. His method is simply this—he takes a quite fresh placenta, which has not been allowed to come into contact with water, and lays it with its maternal side uppermost. A cotyledon, the integrity of which has not been damaged, is then selected, and carefully dried with a sponge or towel, so that no blood adheres to it, and into it a capillary tube is then pressed, so that it may penetrate about one-third or half an inch. The tube thus used pushes the villi aside, and lies in the inter-villal space. It is important in inserting the instrument to see that no bloodvessels are injured by it, lest blood be effused between the villi. When a capillary tube is employed in this manner it sucks up the fluid from the inter-villal space (*i.e.*, the uterine milk), which can



then be collected and examined. Dr. von Hoffmann has examined the fluid from about forty placentæ, some at term, others from cases of abortion at different months. Microscopically, he finds in it the following constituents:—

1. Red blood-corpuscles of different sizes and depth of colour, often, especially in placentæ of the earlier months, with little or no tendency to aggregate into rouleaux.
2. White corpuscles.
3. The chief structures contained are what the author calls "uterine milk-globules," peculiar, clear, round globules, having a very thin, feebly refracting wall, on the average about as large as white corpuscles, but varying from a tenth of, to twice, their size. These bodies precisely resemble those seen in "uterine milk" obtained from the placenta of the cow.
4. Clear watery inter-cellular fluid. The above-described "uterine milk-globules" are present in such numbers that Dr. von Hoffmann calculates that each cubic millimetre of the fluid contains 180,000 to 200,000 of them.
5. There are also found free decidua cells and pigmentary molecules, granules, and flakes of different shapes and sizes, which our author regards as products of the disintegration of red blood-corpuscles. Fluid such as this, Dr. von Hoffmann states, can be extracted from every healthy placenta; if it is wanting, the placenta is not healthy. He believes, moreover, that he has traced the mode of formation of these "uterine milk-globules" from decidua cells, and the production of the large decidua cells from the many nucleated "giant-cells" of the decidua.

Dr. von Hoffmann's views as to the physiology of foetal nutrition are summed up in the following propositions:—

1. The general office of the decidua, both in animals and in man, is to supply the foetus during its intra-uterine life with a part of the nutritive material necessary for its growth. To fulfil this function the decidua serotina becomes a special milk-secreting organ, which, after the birth of the child, is expelled with, and as an integral part of, the placenta.
2. The secretion of this organ, the so-called uterine milk, is separated into gradually formed spaces, in which lie the placental tufts. Here the uterine milk is mixed with maternal blood, which is at the same time extravasated, and together with it forms the material for nutrition of the foetus, this material being only suited for absorption by the placental villi when these changes have taken place.
3. From the point of view of the comparative anatomist, it can no longer be maintained that there is any essential difference in this respect between the placenta of man and the higher animals. Dr. von Hoffmann promises a further communication in which he will elucidate the mode in which this uterine milk is absorbed by the placental tufts.

**APPLICATION FOR WARTS.**—Dr. Cordes, of Geneva, states (*Journal de Thérapeutique*, October 25) that he has always found the following application successful:—Iodine six, crystallised carbolic acid twenty-one, and alcohol two parts and a half by weight. After scraping the wart or cutting it down to a level with the skin (without causing it to bleed), he touches the wart with a few drops of the above solution. In a minute it becomes soft, and allows of another scraping and a new application; and sometimes even a third scraping and application can be made without causing bleeding.

**HYDROBROMIC ACID.**—Dr. Dana, in a communication to the American Neurological Association (*Phil. Med. Times*, July 14) on the substitution of this acid for the alkaline bromides in insomnia, said that it should be given in larger doses than those usually employed. He had recorded very satisfactory results from drachm doses of the officinal 10 per cent. solution. It may be substituted in all the milder disorders in which the bromides are used, especially in those requiring vascular and nervous sedation. In epilepsy some patients had markedly improved under drachm doses four or five times daily, while others had derived no benefit. In chorea and alcoholism it has been used as an adjunct to other treatment. It is a good solvent of quinine, but does not, contrary to the usual belief, prevent cinchonism.—Dr. Hammond observed that, after several years' trial, he had abandoned this agent in consequence of its inferiority to the bromides; but he was satisfied that it really does possess the power of preventing the unpleasant nervous effects of quinine.—In this last opinion Dr. Eskridge agreed, and he also recommended the use of the acid to relieve insomnia occurring in typhoid conditions.

## REVIEWS AND NOTICES OF BOOKS.

*Insanity: its Classification, Diagnosis, and Treatment.* By E. C. SPITZKA, M.D. New York: Bermingham and Co. 1883. Demy 8vo, pp. 400.

DR. SPITZKA is so well and so favourably known as a most industrious and original worker in the field of alienism, his numerous monographs upon subjects connected with insanity have been characterised by such thoroughness of investigation and independence of thought, that when it was known that he was bringing out a book upon insanity, high expectations were entertained as to the character of the work. It must be confessed that these expectations are not quite realised. The merits of the book are, it is true, great and conspicuous; but the same must be said of its defects. It is an honest and praiseworthy attempt to grapple with a most difficult and very imperfectly known subject. The author has abundant courage; he never shirks a difficulty; he shakes himself free from the trammels of authority; thinks out the problems for himself; has plenty of sound common-sense; rarely fails to arrive at a very positive conclusion, which he expresses in terms that are downright and unhesitating without being actually dogmatic. In fact, the book is so good as to make us wonder that it is not better. Its faults are that the author is too certain. He expresses himself as though every conclusion at which he arrives were eternal and immutable; and people who differ from him are often singled out by name or identified by circumstances, and treated with a severity and even vituperation that are unbecoming. Moreover, the book is disfigured by its literary style, which is careless and slovenly in a high degree, and serves often to effectually obscure the author's meaning to his reader, and sometimes, it appears, even to himself.

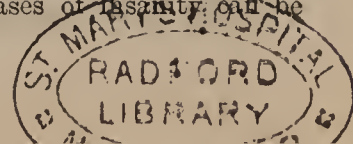
Dr. Spitzka begins, of course, with a definition of insanity—a definition which extends to thirteen lines of rather small print, and includes within itself a baker's dozen of exceptions. When this portentous sentence is carefully parsed—a work of no small difficulty—and the exceptions duly deducted, it is found to be tantamount to a statement that insanity is insanity. Dr. Spitzka says that the first condition of a definition is that it shall be descriptive of the subject to be defined. In this we think he is in error; but whether it is so or not, it is certain that a description should convey a clearer notion of the thing described than the mere name of the thing conveys; and this is not the case with Dr. Spitzka's definition.

Following the definition comes, equally of course, a new classification of insanity. This subject has a fascination that no writer on insanity has yet been able to resist. It is not the first time that Dr. Spitzka himself has yielded to the temptation, and we are forcibly reminded of that verse of Stanley's old song that runs—

"He that was shipwrecked once before  
By such a syren's call,  
If he neglects to shun that shore,  
Deserves his second fall."

A "second fall" Dr. Spitzka has certainly suffered. His classification is even more plainly erroneous than many that have preceded it. The largest group is divided into two main sub-groups, according as the kinds of insanity severally included in the latter are or are not "essentially the manifestation of a constitutional neurotic condition." Among the former he includes the insanity that is owing to the ingestion of alcohol, opium, etc.; and among the latter he places the insanity of pubescence. Another group is divided according as its members are or are not associated with demonstrable organic changes in the brain; a very curious division, seeing that no man living is more likely to shift forms of insanity out of the second of these groups into the first than Dr. Spitzka.

When the author leaves the speculative ground, and comes down to the description of the individual forms of insanity as they are clinically observed, he is much more at home, and his work is of far greater value. Here every page bears evidence of accurate observation, extensive reading, and sound common-sense reasoning. The various forms of insanity are well described, and the distinctions between them are drawn with the utmost plainness; in fact, they are a great deal too plain. While a great many cases of insanity can be





referred with approximate certainty to one or other of the groups described by Dr. Spitzka, there are also a very great many cases that cannot with any certainty be referred to any of them, and this, we think, should have received more prominent mention. The work is, it is true, written for a student's manual, and this may to some extent explain its positive and unhesitating tone; but it is just those who are commencing a study who are most apt to be disheartened when they find, as in this case they must often find, that the cases they meet with in practice cannot be classed in any of the divisions marked out for their guidance.

The sections on morbid anatomy are, on the whole, excellent, excepting the woodcuts, which are vile. On page 283, by a curious oversight, the two engravings placed side by side for the purpose of comparison are both impressions of the same block. The treatment of the very important subject of heredity is poor and bald. No subject bearing on insanity has been more industriously worked at than this, but Dr. Spitzka limits himself to a few disjointed observations, and to the quotation of the conclusions of Richarz, of whom Dr. Spitzka is, we believe, the only adherent. "The relative preponderance of maternal influence in hereditary transmission," says Dr. Spitzka, "is almost a dogma of natural history." It may be so, but we are not aware of any authority who promulgates such a dogma, and, dogma or no, the opinion is assuredly erroneous. The chapters on the etiology of insanity are brief and perfunctory—for an excellent reason; but those upon the treatment of insanity are also very imperfect, and with less excuse. Bromide of potassium is mentioned as an hypnotic; but no reference is made to its continuous use over long periods of time—a method of administration which, whether advisable or not, is common in epileptic and other chronic forms of insanity. No mention is made of iodide of potassium, nor of the phosphates of iron, quinine, and strychnia—medicines that are very largely used in this country, and that, rightly or wrongly, are credited with highly beneficial properties. The bath and the cold pack are mentioned, but no instructions, even as to duration, are given about the latter, and no reference is made to the shower bath, Turkish bath, douche or arrosoir, all of which are powerful agents for good or evil, and ought to be treated of in a work on insanity. The all-important question of employment is altogether omitted.

Still, with all its defects, the book is a good and valuable one, and is a welcome addition to the comparatively scanty bibliography of insanity. If we have laid more stress upon its defects than on its merits, it is not because the former are not greatly outweighed by the latter, but rather because the author confides to us that he has in preparation a larger work on the same subject, and we would wish to see him do himself more justice in his next attempt. His errors seem to be a too demonstrative scorn of minds less vigorous than his own; a too positive conviction of the correctness of his own opinions; and an undue haste and carelessness in putting his thoughts in a literary dress.

*The American Journal of Neurology and Psychiatry.*  
August, 1883.

A BRIEF and cursory paper by Dr. Kiernan on Variola and Insanity opens this number. Dr. Kiernan thinks it fair to conclude—first, that variola may cause lypemania, dementia, and probably moral imbecility; second, that it exerts an influence, sometimes beneficial, sometimes the reverse, on co-existing insanity; and third, that the insanity may modify the variolous symptoms. Incidentally, Dr. Kiernan speaks of "the exaggerated non-restraint conceptions too prevalent in the United States and in England." We were under the impression that even unexaggerated non-restraint practice was far from being prevalent in the United States. Dr. Bluthardt relates a case of simulation of insanity by a criminal lunatic; and Dr. Julius Hoffman contributes a long paper on Researches in the Normal and Pathological Anatomy of the Grey Substance, etc., which contains virtually nothing that is new except some micro-measurements. Dr. Lewis Mason writes upon Alcoholic Insanity, and Dr. McBride gives a case of Aphasia with Right Hemipia.

*The Physicians' and Surgeons' Visiting List for 1884.* London:  
John Smith and Co., Long Acre.

A SAMPLE of this excellent and familiar diary is again before us. It is so well known and so widely patronised in the pro-

fession that it is unnecessary to do more than notify its appearance. We have one or two criticisms to make on the arrangement of the latter part of the book, suggested by some years' very practical familiarity with it. The space set apart for obstetric and vaccination engagements is out of proportion, at any rate in those editions which we are familiar with, to the number of patients allowed for in the visiting list. A general practitioner with a weekly visiting list of fifty patients will hardly be likely to attend over 200 midwifery cases in the year, or to execute nearly 250 vaccinations. If some of the pages left for these engagements were transferred to "Bills and Accounts asked for," a department at present far too meagrely represented, we believe that the requirements of the average general practitioner would be far more conveniently met. Another suggestion which we may make, in the interest of the general practitioner, is that in the memoranda of receipts four pages instead of two should be allotted to January, the month in which most of the previous year's bills are paid. Lastly, we have often thought that a few blank temperature-charts at the end of the book would be of great advantage to practitioners. A special edition might perhaps be issued for pure physicians and surgeons, in which the obstetric and vaccination pages should be replaced by pages arranged for the record of clinical facts of such a character as are likely to escape the memory.

## GENERAL CORRESPONDENCE.

### MESMERISM.

[To the Editor of the Medical Times and Gazette.]

SIR,—I had hoped not to have to trouble you again; but my critic has now made a fresh statement which, if not contradicted, would be taken as admitted. He speaks of an occasion on which Messrs. Smith and Wells were "baffled" by some ordinary precautions, and says that this failure ought to have been recorded. The occasion exists only in his own imagination. The idea of it probably arose from a description (clearly a very imperfect one) of some quite different experiments in which Wells took no part, and the failure of which, with the reason for it, is recorded in the published *Proceedings* of our Society. I may add that the only experiments in ordinary thought-transference which we have ever represented as *crucial* are those where the persons in collusion, if they existed, must have been *ourselves*.

I am, &c.,

14, Dean's-yard, S.W.

EDMUND GURNEY.

[Perhaps it is Mr. Gurney's memory and not our imagination that is at fault. The occasion to which we referred was one in the month of April or May last, when a party of scientific men attended, by invitation, at the rooms of the Psychical Research Society, to witness some demonstrations in thought-transference by two subjects upon whom the Society was then experimenting, and one of whom was named Smith. The demonstrations consisted in the reproduction by the subject, without contact, of diagrams which had been shown to the operator. The scientific witnesses of these demonstrations had no hesitation in arriving at a very definite conclusion as to the manner in which such wretched results as were submitted them were procured. No further results were obtained when they took means effectually to prevent sight and hearing by the subject; and the failure of the experiments from this point was attributed by the Psychical Researchers present (of whom, if we are not misinformed, Mr. Gurney was one) not to the precautions which they adopted, but to the disturbing influence of their want of faith and attitude of determined antagonism. No account of these experiments has appeared in the *Proceedings* of the Society, unless another set of *Proceedings* has been issued beyond the two parts that have reached us. We shall look forward to the Society's report of this particular *séance* with much interest.—Ed. *Med. Times and Gaz.*]



INFLAMMATION OF THE EAR AND TONSIL IN  
CONNEXION WITH RHEUMATISM.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have often remarked on the frequency with which chronic rheumatism is associated with more or less inflammation about the auditory meatus. Those who come to consult the physician on account of rheumatic pains nearly always have some greater or less amount of impairment of hearing; and when the ear is examined, to see if there be any gouty deposits about it, the patient will be found wearing a plug of wool to protect the organ from cold. The rheumatic irritation appears to affect the meatus, causing often a hot, burning feel therein, with increase of secretion, and consequent blocking of the passage with lumps of hard cerumen. The membrana tympani, the internal ear, and the Eustachian tubes participate; and often these last become obstructed, so that no air will pass through them into the cavity of the tympanum.

Of actual severe tonsillitis as a precursor of acute rheumatism I have quite recently had a most marked example. The efficacy of preparations of guaiacum in curing some forms of sorethroat and tonsillitis may be taken as an additional proof of the rheumatic nature of these maladies. The ear-trouble fairly established is obstinate and not soon cured. Hence the wisdom of the following bit of advice:—“Enfoncez bien votre bonnet jusque sur vos oreilles; il n’y a rien qui enrhumetant que dépendre l’air par les oreilles,” is the advice of “Béline” to “M. Argan” in the *Malade Imaginaire*.  
I am, &c.,

JOHN C. THOROWGOOD, M.D., F.R.C.P.

Welbeck-street, November.

## REPORTS OF SOCIETIES.

THE ODONTOLOGICAL SOCIETY OF GREAT  
BRITAIN.

MONDAY, NOVEMBER 5.

JOSEPH WALKER, M.D., President, in the Chair.

AMONGST the specimens exhibited were two of considerable antiquarian interest. A partial denture worn by Queen Caroline during her trial was sent by Mr. JOHN PARKINSON, M.R.C.S., of Porchester-square. It consisted of five or six upper front teeth, fastened to a flattened gold wire, and secured by clasps at each end. It could, of course, only have been intended for ornament.

Mr. FORAN, of Southsea, sent a model of a seal affixed to a deed of the time of Edward II., on which was the impression of upper incisor teeth, accompanied by extracts from standard works on the subject, explaining that, before the general use of engraved seals, it was the custom to impress the wax with the teeth. The specimen from which this model was taken was a very late example of this practice.

Mr. W. A. HUNT, of Yeovil, showed a first right upper molar which he had extracted on account of periostitis, etc., from the mouth of a lad aged thirteen. Projecting some distance from the end of the palatal root was a piece of elastic rubber, such as is found in the webbing used for side-spring boots. How it could have got there was a mystery. The apical foramen had become enlarged to exactly the size and shape of the rubber, showing the effect of even slight pressure in producing absorption.

THE RELATION BETWEEN DENTAL LESIONS AND DISEASES  
OF THE EYE.

Mr. HENRY POWER read a paper on the above subject, for the abstract of which we are indebted to the *Journal of the British Dental Association*. The connexion between dental diseases and affections of the eye (Mr. Power observed) was not one which was apparent at first sight, and it was only within the last sixty years that it had been noticed by writers on ophthalmic diseases, and by most of these it was only casually referred to. The first writers he had met with who distinctly refer to this connexion were Travers and Frick, 1824 and 1826, both of whom mention difficult dentition as one of the causes of strabismus. After this date, difficult dentition and dental disease are often mentioned incidentally amongst other causes of ophthalmic disease.

He would take it for granted that all present would admit that there was such an affection as reflex sympathetic ophthalmia, of the existence of which ophthalmic surgeons were constantly reminded by the frequent occurrence of cases in which injury to one eye, especially of the ciliary region, was followed, after a period of very variable duration, by inflammation of the uninjured eye, of a low but steadily progressive type, generally involving all the tissues and leading to more or less serious impairment, or even to complete loss of vision. If the question be put, How does irritation or inflammation of one eye come to affect the other, by what path does the irritation travel? the reply given, both by exact clinical observation and by pathological investigation, is that, in the vast majority of cases, a neuritis travels along the ciliary nerves, or in a few instances along the optic nerve; and this evidence of conduction of the morbid process along the sheaths of the nerves is of considerable importance in enabling some explanation to be given of the occurrence of reflex troubles where the teeth are the seat of the primary lesion. It is well known that injuries affecting the branches of the first (ophthalmic) division of the fifth pair may affect the eye of the same side. Thus a case is recorded by M. Decaisne, a staff-surgeon in the Belgian army, in which an officer was struck on the forehead with a piece of wood in the course of the frontal nerve, and complete blindness followed. That injuries to the supra-orbital nerve may be occasionally followed by amaurosis seems also to be well established, and there are good reasons for believing that affections of other branches of the fifth pair may be the cause of ophthalmic troubles (cases confirming this opinion were referred to by Mr. Power). The existence of this connexion with reference to the dental nerves is specially dwelt upon by M. Decaisne, in the *Gazette Médicale*, 1871, page 369, who reports several cases to prove that odontalgia is often accompanied by lachrimation, redness of the conjunctiva, sudden darts of pain, and winking of the lids; and he explains this by supposing that the irritation of the dental branch of the superior or inferior maxillary nerve extends to other branches of the fifth, and especially to the ophthalmic, thus producing the phenomena just mentioned.

The question as to whether dental irritation is specially liable to cause any particular affection of the eyes is rendered difficult of solution by the extreme frequency of dental disease, it being rare to find a person, either with or without eye disease, who has thoroughly sound teeth. The fact, however, that dental irritation may, under certain circumstances, set up reflex irritation of the eye, cannot be doubted. This may express itself in any of the following ways:—(1) By reflex irritation affecting striated and unstriated muscle; (2) affecting the mucous membrane and cornea; and (3) it may affect the optic nerve and retina, and the intra-ocular tissues. Under the first head may be mentioned paralysis of the ciliary muscle, of the intra-orbital muscle, of the muscular fibres of the iris, of any of the ocular muscles, and of the orbicularis palpebrarum. One of the commonest forms of visual disturbance induced by dental disease is loss or failure of the power of accommodation, due to paresis of the ciliary muscle. This has been particularly investigated by Dr. Hermann Schmidt, of Berlin, who found that of ninety-two patients suffering from various forms of dental irritation there were only nineteen in whom the range of accommodation was normal, whilst in most of the remaining seventy-three cases the range was considerably reduced. This effect of dental irritation was, as might have been expected, most marked in young patients, in whom the ciliary muscle is strong, and the range of accommodation naturally most extensive. In patients over thirty the impairment of the power of accommodation was much less frequently observed. The results of these observations, in which also the influence of sex, of the particular teeth affected, and of the nature of the lesion were inquired into, were published in *Gräfe's Archiv*, xiv., page 107. Unfortunately, Schmidt was only able to ascertain the effect of the removal of the offending tooth or teeth in eight out of the ninety-two cases, but in five of these distinct improvement was observed.

Mr. Power then proceeded to quote cases in which paralysis of the iris, with consequently dilated pupil, and exophthalmia, had been produced by dental irritation. Both these were rare occurrences—indeed, of the latter there was only one case recorded; in this, however, the connexion appeared to be perfectly clear, since all the symptoms, which had been



very marked, disappeared within three days of the extraction of three carious teeth. That strabismus may be induced by difficult dentition seems to be generally admitted, though probably this is not a very common cause of the deformity, which, as was pointed out by Donders, is in the great majority of cases due to hypermetropia. Cases are also on record in which paresis of the levator palpebræ, supplied by the third nerve, and the orbicularis palpebrarum, supplied by the seventh, have occurred as the result of dental irritation. An affection that is not unfrequently observed is that known as blepharospasm, or incessant winking of the lids. This is most often associated with the error of refraction known as hypermetropia, but that it may also occasionally be excited by reflex dental irritation is established by cases recorded by von Gräfe and Mitchell.

Passing on to the consideration of the second group of phenomena, viz., where there was reflex irritation of the mucous membrane of the eye and the cornea, Mr. Power said he had noticed that phlyctenular ophthalmia (a common disease amongst children) was very frequently associated with carious teeth, and it was, he believed, often caused by them; he had found, in his own practice, that children who presented themselves suffering from phlyctenular ophthalmia invariably had carious teeth. Severe conjunctivitis might result from the same cause, as had been proved by cases in which, the inflammation having resisted all ordinary treatment, the mouth had been examined and a carious tooth found, which had, however, given the patient but slight inconvenience; this was removed, and the conjunctivitis forthwith and spontaneously disappeared. Mr. Power also narrated a case which had come under his own observation, in which abscess of the cornea seemed to be intimately connected with the presence of carious teeth on the same side, resisting all treatment until these were removed, when the mischief gradually subsided, though not without leaving great impairment of vision.

He then proceeded to the consideration of the last class of cases, quoting a case recorded by Sir William Lawrence, in which, after two months of severe neuralgia of the left side of the face, loss of the sight of the left eye supervened. Six months later, symptoms of antral abscess appeared; this discharged under the lower eyelid. Finally, attention was directed to the left first upper molar, which was carious, but which had never given rise to much apparent uneasiness; it was extracted, and a small fragment of wood, about three lines in length, was found projecting from the apical foramen. A probe could be passed through the socket of the tooth into the antrum. The remarkable feature of the case was, that not only did the pain cease, but the same evening the eye began to be sensible to light, and vision improved so rapidly that by the ninth day the patient could see as well with the left eye as with the right, although he had been totally blind with that eye for thirteen months. Somewhat similar cases, though of less striking character, had been recorded by other writers. Thus, Dr. De Witt relates, in the *American Journal of the Medical Sciences*, the case of a strong healthy man, aged thirty, who suddenly discovered that he had lost the sight of the right eye. There were no local symptoms to account for the blindness. Two months before, several teeth had been stopped; one of these, the right first molar, had become painful, and an alveolar abscess had formed in connexion with it. Dr. De Witt, suspecting irritation of the fifth nerve from this source, removed the stopping from the inflamed tooth. The periostitis then subsided, and the sight of the right eye began to return. Three weeks later, when the distinctness of vision had greatly improved, there was a fresh attack of inflammation around the tooth, and at the same time the sight became worse. The tooth was then extracted, improvement again took place in the eye, and it soon became almost, though not quite, as good as the other. Lastly, the relation of dental irritation to glaucoma was referred to, the result of various investigations on this subject being to the effect that, in persons in whom the constitutional state and the local conditions were such as to predispose to the occurrence of this disease, the irritation of a carious tooth might be a very probable and active exciting cause.

In conclusion, Mr. Power said he thought it might be laid down as a rule to be generally observed, that in all cases of threatening glaucoma, especially when associated with ciliary neuroses and obscure pain in the temporal, maxillary, and orbital regions; in all cases of mydriasis,

and probably also of myosis, originating without apparent cause; in all cases of sudden paralysis of any of the orbital muscles, or of loss of sensation, in the absence of cerebral symptoms; in all cases of phlyctenular disease, of conjunctivitis, and ulcers of the cornea resisting ordinary treatment; in all cases of sudden failure of accommodation, especially in young persons; and, finally, in cases of exophthalmia—the condition of the teeth should always be examined, and, if faulty conditions presented themselves, these should at once be rectified; and thus one at least of the possible causes of these diseases would have been removed.

A short discussion ensued, in which the President and Messrs. Charters White, Hunt, Coleman, and Thomas Nunn took part; but a fuller discussion on the paper will take place at the next meeting on December 3.

## THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 20.

J. W. HULKE, F.R.S., President, in the Chair.

### OSSIFYING CHONDRO-SARCOMA IN A CICATRIX.

MR. DURHAM observed that the pathology of new growths was always a question of great interest. The first case he brought before the Society that evening was one of the development of bone-tissue in a tumour arising from a cicatrix. The patient was a man aged seventy-three, who had been severely burnt about the lower part of the abdomen, when twelve years old, by the explosion of some squibs in his pocket. A large scar formed, but created no trouble until a few months before he came under observation; then a lump appeared in the scar, followed by a sore place, which gradually extended. Portions of apparently bony material were from time to time discharged from it. When he came into the hospital there was a half-fungating kind of sore in the cicatrix, just above Poupart's ligament, looking like an epithelioma. It was very freely removed. Some parts were comparatively soft, others very hard and cut with difficulty; the hard part was unlike mere calcification, more like bone. Microscopically, there was very distinct bone-formation. The growth was evidently a sarcoma, which was unusual in a cicatrix at such an age; it would have been, *a priori*, more likely to be an epithelioma or carcinoma. The tumour contained fibrous tissue in various stages of development, well-developed cartilage-cells, and well-developed myeloid cells, besides the development of true bone up to a certain point.

### BONY TUMOUR IN THE BREAST.

MR. DURHAM detailed the case of a woman, aged twenty-seven, who, two years previously, had noticed pain in the left breast, which was followed by the appearance of a tumour. This seemed to be a case of adenoid tumour, though around it was an induration, which raised some doubt as to its nature. It was indistinctly lobulated, and enclosed in a capsule. On section it was found to be of pinkish-grey colour; some parts soft, some harder, some friable. The principal part had a plate, three-eighths of an inch across, of bony tissue embedded in it. Microscopically there were trabeculae of osseous tissue, with lacunae and canaliculi. The tumour was a very distinct and well-characterised sarcoma; there were abundant cartilage-cells contained in it. At the periphery there was some glandular tissue with intracystic growths.

MR. HULKE observed that both these cases were of great interest. In the skin, osteomata were not very uncommon, but quite small. In reference to the development of bone in tumours, he alluded to the tumours seen not infrequently in the muciparous buccal glands, which were now and then found to contain true bone. All these structures belonged to the group of connective tissues. He wished to ask Mr. Durham whether, in his first patient, the ulceration preceded the development of bone, or not.

MR. BUTLIN had been much interested in the President's observations, as he had thought that the muciparous-gland tumours were calcareous, and not bony. He then referred to the absence of the evidence of the growth of bone in carcinomatous tumours, except in one French case of tumour



of the breast. Mr. Durham's first case had originated, he believed, in the subcutaneous tissues rather than in the skin itself. He had himself shown to the Society, about ten years previously, an ossifying sarcoma in the subcutaneous tissues.

Mr. ALBAN DORAN observed that chondrification and ossification were very frequent in the connective tissue which is so abundantly developed under the skin found in dermoid ovarian cysts. This was not necessarily due to the same formative power, as it is often called, which produced skin and hair in such cysts. The cause might lie within the connective tissue itself. It was also to be noted that in the same tissue sarcomatous tracts were very frequent, and within these tracts small round or many-sided pieces of bone were not uncommon. These osseous fragments were quite different from the flat plates of bone developed in dermoid cysts independently of sarcomatous tissue.

Dr. GOODHART had brought a case before the Society where a buccal tumour, about three-quarters of an inch across, had formed in the lower lip. He wished to ask whether there was any reason why these tumours should occur in the lip.

Mr. EVE alluded to the paper brought before the International Medical Congress by Malherbe on the subject of bony tumours in the skin. He (the speaker) had examined many supposed cases of this kind, but had always found the deposit to be calcareous, and not true bone.

Dr. COUPLAND mentioned the case of an osteoma removed from the subcutaneous tissue of the buttock of a woman. He thought that the definition of an osteoma was that it must be developed from connective tissue away from bone.

Mr. HENRY MORRIS mentioned a fatty tumour, nearly the whole of which had undergone ossification; and, referring to the growth of bony tumours in the muciparous follicles, he alluded to a man who came under his care suffering from epileptiform neuralgia, and who, after going through several operations, was relieved (apparently permanently) by the removal of several minute bony tumours from the mucous membrane of his cheek.

Mr. HULKE could suggest no reason why bony tumours should occur so frequently in the neighbourhood of the lip.

Mr. DURHAM, in reply to one of the questions, said that the lump was noticed in the cicatrix before there was any ulceration.

#### CHARCOT'S JOINT-DISEASE.

Dr. HALE WHITE showed a pelvis, taken from a subject who was brought into the dissecting-room of Guy's Hospital last winter, which he thought was an example of Charcot's disease. The bones were extremely thin and light, the spaces in the cancellous tissue being unusually large. This change made the bones so light that the whole pelvis only weighed seven ounces. The acetabula were much altered, the walls being as thin as paper in many parts. Owing to this tenuity of the bone, the heads of the femora had pressed the bottom of the acetabula into the pelvis, thus forming two very prominent bosses on its interior, and making the transverse diameter of the brim three inches and a quarter. All articular cartilage had disappeared. This deepening of the cavity made its margins very prominent, so that the anterior superior spine quite overhung the acetabulum on the right side. At the back part the deepening was so extreme that the thick part of the bone between the acetabular and posterior surface of the ischium was almost worn through. On both sides, especially the right, it was seen that the deepened cavity was divided into two parts by a vertical ridge placed opposite the most superior part of the ischial tuberosity; the anterior of these two parts was for the lesser trochanter to play in, as the absorption of the neck of the femur was so great that the lesser trochanter was brought up to the margin of the obturator foramen. The chief points about the specimen were the great atrophy of bone without the formation of any new bone, thus corresponding exactly to Prof. Charcot's description of "considerable atrophy without the production of stalactites."

Mr. HULKE thought that these changes of rarefying osteitis were due to pressure. He was always rather sceptical about Charcot's joint-disease, and he thought that the case brought before them that evening differed in some important particulars from those which Charcot had described.

Mr. HUTCHINSON asked whether any other joints were

affected, and whether it would be possible to obtain any further history of the case.

Dr. WHITE, in reply, said that no other joints were affected, and he much regretted that he had been unable to obtain any history.

#### PEDUNCULATED ADENO-SARCOMA OF SKIN.

Mr. EVE showed some microscopical sections of this case. The patient was a woman, aged forty-six, under the care of Mr. Langton, with a pedunculated tumour hanging from the left groin, measuring five inches by three inches and a half. The skin was adherent at the apex only. The tumour was irregular. There was a history of a kick in the groin. Four years after, an abscess formed there; then, three years later, a small swelling, which recently had grown rapidly. The mass was uniformly fleshy, and of indistinct fibrous structure. Microscopically, the growth was a fibro-sarcoma with scattered epithelial cells of glandular type. Some of these had the appearance of alveoli. The growth resembled an adenoma of the skin, and was probably due to hypertrophy of the glandular element of the skin. It was likely to return locally.

#### NECROSIS OF UPPER JAW IN TYPHOID FEVER.

Dr. ANGEL MONEY read notes of a case of typhoid fever which supervened on rheumatic fever in a boy aged nine years. The typhoid fever set in about six weeks (February 18) after the patient's admission to hospital, and there seemed to be no doubt that the primary illness was of a rheumatic nature. Five weeks (March 22) after the apparent onset of the fever, the signs of necrosis of the upper jaw on the left side were apparent. Several teeth came away, and, after a protracted course, the sequestrum was removed without any mishap on May 30. The sequestrum consisted of a large portion of the superior maxillary and palate bones—necrosis of something more than the mere alveolar border. The patient made an excellent recovery, and a note on June 4 says that no fluid has returned through the nose. It might be remarked that the necrosis seemed to come on during the course of typhoid fever, but it was much more likely that the specific fever had ended its course, and that the pyrexia observed was due to the local mischief about the jaw.

Mr. PARKER was of opinion that this case closely resembled cases of cancrum oris except in the fact of recovery. He had frequently seen a similar occurrence after measles, scarlet fever, and typhoid fever.

Mr. MAHOMED had seen two cases in which scarlet fever had been followed by the loss of a portion of the maxilla and some teeth. Clinically, Dr. Money's case bore no resemblance to cases of cancrum oris, for the bone was affected rather than the soft tissues, the process was not a creeping one, and a large area was affected from the first.

Mr. HULKE thought that this was certainly not a case of cancrum oris. The fact that the patient recovered without local treatment was in itself sufficient to prove this.

Dr. MONEY replied that though pathologically there might not be much difference between his case and one of cancrum oris, yet that clinically they were quite distinct conditions.

#### THE SO-CALLED TUBERCULOSIS IN BIRDS.

Mr. J. B. SUTTON read a communication on this subject. His attention was first attracted to the disease called "tuberculosis" in birds in the spring of 1879 by a farmer in the North of Middlesex, who sent him two dead fowls, stating that disease had broken out among his (the farmer's) poultry, and that his stock of birds stood a fair chance of destruction. By thoroughly destroying the bodies of the dead birds and killing the sickly ones the disease seemed to be arrested for a time. In 1881 the disease again made its appearance, and nearly all the offspring of the stock of 1879 died. Ducks and geese were not affected in either epidemic. In the latter part of that year the author commenced work at the Zoological Gardens, where, in the course of his dissections, he found the disease very prevalent. After spending more than two years in investigating the matter, and examining, from all sources, more than a thousand birds of various species, he now proposed to put the results of his observations before the Society under three headings—1. The anatomy of the disease; 2. Its zoological distribution; 3. The histology of the affected organs. (1.) With regard to the first division of the subject, the author said that the



disease first manifested itself in the alimentary canal in the form of yellowish-white nodules, varying in size from a small pin's head to a mass as large as a chestnut. They projected most into the interior of the bowel, thus causing death by obstruction, or projected on the serous surface, setting up peritonitis. The liver next became the seat of caseous nodules equally disseminated throughout its substance, at first very minute, but soon attaining a considerable size. The spleen rarely escaped, frequently being so full of these nodules that the capsule ruptured. The lymphatic glands in the neck were affected in severe cases. The mesentery often contained nodules due to collection of the morbid material in the ducts leading to the receptaculum chyli. The kidneys, heart, etc., were rarely the seat of gross lesions. Only once was a deposit in the lungs met with. Death was nearly always caused by the mechanical effects of the nodules in the intestines producing obstruction or setting up peritonitis. (2.) The birds almost exclusively affected by this disease were those which lived on seed, grain, and fruit (by grain was meant barley, maize, oats, etc.). Twice it occurred in flesh-eaters, but no case was met with in those subsisting on fish. The struthionies, particularly the rhea (South American ostrich), were very liable to this affection. The birds most liable were the common fowl, the peacock, grouse, guinea-fowl, tragopan, pigeon, and partridge. Possibly the two flesh-eating birds contracted the disease by eating the flesh of birds who had died from it. (3.) In July, 1883, the author communicated with Dr. Gibbes, who submitted specimens of the organs of rhea, peacock, tragopan, and golden pheasant affected with tuberculosis to microscopical examination with the following result. Sections of the liver, when stained with logwood, showed circumscribed areas surrounded by fibrous tissue, in which were numbers of cells that appeared to be disintegrated. Among them were numbers of small cells which stained deeply. Outside these areas the liver appeared to be normal. On staining sections specially for bacilli, the whole of the circumscribed areas before mentioned were found to be made up of cells, of varying size, filled with bacilli. These bacilli were also arranged in tubular masses in what appeared to be vessels. They had the same reaction to staining agents as the bacilli found in tuberculosis; with a high magnifying power ( $\times 4000$ ) they were indistinguishable from them, and they also contained rounded bodies resembling spores. Bacilli were also found in the lung and lymphatic glands of the peacock, in the lymphatic glands and liver of the tragopan, and in the lung, intestine, liver, and spleen of the golden pheasant. The question for consideration was—Was there any chance of the disease becoming transferred from man to other animals? On the farm where the disease was originally watched some of the pigs died from peritonitis, the coils of the intestine being matted together by small growths. These pigs were fed on refuse from the kitchen, including the offal from the poultry. With regard to this it appeared that in the Grand Duchy of Baden the veterinary surgeons reported on the frequency of tuberculosis in pigs fed on the residue of the distillery and kitchen waste, the infection starting from the alimentary canal, and affecting the liver, spleen, and occasionally the kidney (*Veterinary Journal*, October, 1883). At the Zoological Gardens, two carnivorous animals—an eeyra from Brazil, and a paradoxure from India—died with their livers in the same condition as tuberculous birds. These creatures were fed on small birds and the offal of poultry. Their livers were examined by Dr. Gibbes, who found that the nodules contained bacilli giving the same reaction to staining agents as those found in the nodules of the birds' viscera. The author wished to state that this was only a preliminary paper. He was still working actively at the subject, hoping soon to bring further important matter before the Society; but, having cleared the way to the point attained by the investigations recorded in this paper, it was thought desirable that these facts should be contributed to the members.

## CARD SPECIMENS.

J. R. LUNN.—Fracture of Lumbar Spine.

F. S. EVE (for Dr. LEDIARD).—Sarcoma of Lower Jaw of Horse.

F. S. EVE.—Hydatid Cyst from Calf of Leg.

R. E. CARINGTON.—Ulcerative Endocarditis.

Dr. R. WEST.—Stomach from a case of Carbolic Acid Poisoning.

## OBITUARY.

## CHARLES HILTON FAGGE, M.D., F.R.C.P.

WITH feelings of the most profound regret we have to record the death of Dr. C. Hilton Fagge, which occurred on November 19, at 76, Grosvenor-street, W. The fact that his health had become precarious was already known to many, but the particular form of his malady was, by his own desire, only divulged to a few, and the knowledge that he had been fulfilling his duties as Examiner in Medicine at the University of London during the previous week had dispelled any idea of immediate danger. For the last eighteen months he had become aware of some imperfection of the aortic valves, but not until the beginning of the present year was any suspicion entertained of the disease which has now proved fatal—viz., aneurysm of the arch of the aorta. Recognising only too clearly what was before him, he followed with precision the advice of his colleagues, Drs. Wilks and Moxon, and for some time made most satisfactory progress. Relaxing only those of his professional duties which involved physical exertion, he continued, with a brave spirit, in the regular work of his practice. Possibly the fatigue attending the M.B. examination, just concluded, may have contributed to the more rapid close of a life which must under any circumstances have been near its end. The immediate cause of death was syncope, probably from internal hæmorrhage.

Descended from a race of medical men, and nephew of the late John Hilton, F.R.S., Dr. Fagge was, after an early training under private tuition, entered at Guy's Hospital at the age of eighteen, and from that day forward every medical honour and appointment which his years permitted was at his disposal. At his First M.B. examination at the London University, in 1859, Dr. Fagge took first places in anatomy and physiology, chemistry (bracketed equal with Dr. Gee), botany, and in materia medica and pharmaceutical chemistry; at his Second M.B., in 1861, he was first in physiology and comparative anatomy, in medicine (again bracketed equal with Dr. Gee), and second in surgery and in obstetric medicine; and in 1862 he took his M.D. degree. His student-career is probably the most brilliant in the records of the University of London, and the promise there shadowed forth was most amply fulfilled.

Appointed Demonstrator of Anatomy at Guy's Hospital in 1863, and Medical Registrar in 1866, he succeeded to the Assistant-Physicianship in 1867. For several years he took charge of the department of skin diseases, and, besides the work of clinical teaching, he drew up a valuable catalogue of the beautiful series of wax models in the Guy's museum. In 1871 he became associated with Dr. Moxon in the pathological department, succeeding in 1873 to the Curatorship of the Pathological Museum and the Lectureship on Pathology. In the active work of the post-mortem room he continued until a year ago, and he contributed in no small degree to the perfection of the present pathological demonstrations in the new theatre, by the earnest manner in which he urged upon the authorities of the Hospital the necessity of providing a suitable building for the work of which he so well knew the importance. Besides his work as Assistant-Physician at Guy's, he held appointments at various times as Lecturer on Physics, on Materia Medica, and on Hygiene, in addition to the ordinary courses of clinical lectures. For several years he held office as Physician to the Evelina Hospital and to the Royal Hospital for Women and Children, and officiated till the time of his death as physician to three assurance societies, the London and Westminster Bank, etc. His distinguished career at the University of London naturally led him to take a deep interest in all matters relating to it, and especially in the achievements of the students of his own school who in successive years became candidates for its degrees and honours, many of whom owe a large share of their subsequent success to his kindly encouragement and brilliant example.

In succession to the late Dr. Murchison, Dr. Hilton Fagge was appointed an Examiner in Medicine at the University, and held the office till the day of his death, having been engaged in looking over the papers of the candidates for the recent M.B. examination within a few hours of the end. A



striking similarity between the terminations of two useful and honourable lives is seen on comparing the case of Dr. Murchison with that of Dr. Fagge. Distinguished as scholars and teachers, both working for the same end, they each in turn were called upon to face the dreadful certainty that their lives were in daily danger. With the true spirit of bravery which animated them both, they steadfastly determined to do their duty to the last, and, dying in harness, as both would have desired, have left behind them names which will for ever be remembered with the respect due to brave and honourable men.

Dr. Fagge's place as Physician to Guy's Hospital, which he only lived to enjoy during three years, may be filled readily by others; but the loss of his personal influence in the Hospital and School will be felt for a long time after the immediate shock of bereavement has passed away. Of his qualities as a scholar, writer, and thinker in the great department of medical science, he has left abundant evidence behind, scattered through transactions, reports, and records of various societies and associations. A still more powerful testimony has yet to be given to the world in his work on Medicine, upon which, in the intervals of active practice, and lately under the most trying circumstances, he had been engaged for many years past; but an unwritten record of his wide reading, his careful reasoning, his painstaking and conscientious observations, and his truly scientific habit of thought, will remain indelibly impressed upon the minds of all those whose privilege it was to work in association with him.

In addition to a well-stored and evenly-balanced mind, which should be the property of every physician, Dr. Fagge had that gift for painstaking and laborious observation which, we fear, is less cultivated now than in former days; and in the old-fashioned requirements of diagnosis and treatment he had scarcely an equal, certainly not a superior, among his contemporaries. He always remembered and brought to bear on a difficult case the particulars of any analogous cases that he might have previously seen, and his field for observation had been as large as it was well worked. He was an assiduous and careful pathologist, and all his observations and writings fully attested the value and earnestness of his work. He was in no way sanguine as to the results of theoretical investigations, but was remarkable for the orderly and masterful manner in which he placed his facts before his hearers, almost regardless of the inferences which he intended should be formed from them. He had worshipped at the shrine of Addison and Bright, and was no mean follower in their footsteps. His most valuable writings are, in our opinion, amongst his earliest, viz., the articles on "Intestinal Obstruction" and "On the Murmurs attendant on Mitral Contraction," in the *Guy's Hospital Reports* for 1869 and 1871. He was always greatly devoted to Dermatology, and published many short memoirs thereon. He also edited and translated, for the new Sydenham Society, Hebra's classic work on Exanthemata and Diseases of the Skin. He was a constant attendant at the meetings of the Pathological Society, and every recent volume of its *Transactions* contains records of cases and post-mortem examinations of extreme value, sufficiently indicative of the manner of work and the character of Dr. Fagge as a physician. The last public occasion in which Dr. Fagge took a prominent part was in November, 1880, when, in his opening speech at the debate on Rickets—probably the most important discussion ever held at the Pathological Society,—he gave the conclusions at which he had arrived from his practice at the Evelina Hospital for Children. He was particularly quiet and unassuming in manner, beloved by all who knew him well, and, in losing him, we feel that "a modest as well as a great clinical observer and teacher has passed from amongst us."

#### LOUIS BORCHARDT, M.D.

AFTER a somewhat brief illness, this well-known physician died on November 15, at his residence near Manchester, at the age of sixty-seven. Born in East Prussia, Dr. Borchardt was early entered as a student at the University of Berlin, where he graduated as Doctor of Medicine in 1838. A few years later he did some very good work as a Royal Commissioner in organising a successful opposition to the ravages of an epidemic of typhus fever in Upper Silesia. In 1843 he played a prominent part in the agitation against the

Government, the ultimate result of which was a term of imprisonment for two years, and such systematic persecution afterwards that he was obliged to give up all thoughts of practising his profession in his native land, and came over to this country rather more than thirty years ago. He soon settled down in Manchester, where he early became connected with the Children's Hospital, holding the office of Physician to it for nearly a quarter of a century. He soon gained an extensive practice, and enjoyed the confidence of his patients in marked degree. He was at one time President of the Manchester Medical Society, and was also President of the Lancashire and Cheshire Branch of the British Medical Association; and during the International Medical Congress held in London in 1881 he was a member of the Council in the Section of Diseases of Children.

#### INVENTIONS AND IMPROVEMENTS.

##### RUSPINI'S ASTRINGENT TINCTURE, DENTIFRICE, AND BALSAMIC STYPTIC.

SAMPLES of these old and well-known remedies are again before us. They have been in use so long, and have maintained their undoubted excellences so well, that it is unnecessary for us to say much about them. The tincture and dentifrice are specially useful in cases of spongy gums, leading to loosening of the teeth; they are powerfully and agreeably astringent, and seem well adapted to the purposes they serve. The styptic, both for internal and external use, is indicated in cases where hæmorrhage is going on, and it was used in such cases by the late Sir Benjamin Brodie. It is perhaps not generally known that the original proprietor was an Italian surgeon. At his death the recipes passed to his eldest son, who was once at school with the First Napoleon. They have since been handed down, and are now in possession of a great grandson of old Ruspini. We do not usually notice secret preparations, but the present ones claim some exemption on account of their antiquity and respectability of origin. They may be obtained of Barclay and Sons, Farringdon-street, E.C.

#### MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent M.B. Examination:—

*First Division.*—Charles Frederick Bailey, St. Bartholomew's Hospital; John Metcalfe Beverley, Owens College and Manchester Royal Infirmary; Robert Black, London Hospital; Edward Hargrave Booth, Guy's Hospital; Frederick Foord Caiger, St. Thomas's Hospital; John Howard Champ, Guy's Hospital; Joseph Collier, Owens College and Manchester Royal Infirmary; Louis Albert Dunn, Guy's Hospital; Charles Reginald Elgood, University College; Robert Fortescue Fox, London Hospital; William Dobinson Halliburton, B.Sc., University College; Wheelton Hind, Guy's Hospital; William Heaton Horrocks, B.Sc., Owens College; Walter Hull, St. Thomas's Hospital; Frederick Knight, University College; Albert Martin, Guy's Hospital; Sidney Harris Cox Martin, B.Sc., University College; Paul Frank Moline, University College; Frederick John Paley, St. Bartholomew's Hospital; Maurice Parry-Jones, Guy's Hospital; George Victor Perez, University College; John Alfred Parry Price, Guy's Hospital; Samuel Rabbeth, King's College; John Thomas Rogerson, Owens and University Colleges; Edmund Wilkinson Roughton, St. Bartholomew's Hospital; Thomas William Shore, B.Sc., St. Bartholomew's Hospital; Richard Sisley, St. George's Hospital; Robert Henry Scanes Spicer, B.Sc., St. Mary's Hospital; St. Clair Thomson, King's College; Clement Bernard Voisey, Owens College, Manchester Royal Infirmary, and St. Mary's Hospital; Ernest William White, King's College; Sidney Worthington, Guy's Hospital.

*Second Division.*—Harry Poole Berry, Guy's Hospital; Isaac Blore, Owens College and Manchester Royal Infirmary; Walter Tyrrell Brooks, King's College; Robert Cuff, Guy's Hospital; William Thomas Frederick Davies, Guy's Hospital; William Dudley, Queen's College, Birmingham; Joseph Langton Hewer, St. Bartholomew's Hospital; Donald Templeton Hoskyn, University College; Charles Montagu Handfield Jones, St. Mary's Hospital; Nicholas Percy Marsh, St. Bartholomew's Hospital; Charles Hartvig Louw Meyer, Guy's Hospital; Michael O'Kane, Guy's Hospital; Arthur Guy Salmon, St. Bartholomew's Hospital; Henry Shillito, Birmingham School of Medicine; Druce John Slater, St. Bartholomew's Hospital; James Henry Targett, Guy's Hospital; Emily Tomlinson, London School of Medicine for Women; Edward Waldemar von Tunzelmann, University College; Henry Dunn Waugh, B.A., B.Sc., University College; Edwin James Wenyon, B.A., B.Sc., Guy's Hospital; Thomas Wilson, University College.

THE ROYAL UNIVERSITY OF IRELAND.—The second annual public meeting of the University for the conferring of degrees and awarding honours and prizes took place in the University Buildings, Earlsfort-terrace, Dublin, on the afternoon of Thursday, the 25th ult. His Grace the Duke



of Abercorn, K.G., Chancellor of the University, presided. In his opening statement the Chancellor observed that the number of candidates entered for examination in the Faculty of Medicine during the past year had been 502, of whom 237 had been successful. The following exhibitions and honours were awarded in the Faculty of Medicine:—

#### M.D. DEGREE EXAMINATION.

*Exhibitions.*—First Class, £50: W. H. Thompson, Queen's College, Galway. Second Class, £25 each: W. J. Moynihan and J. M. Sheedy, Queen's College, Cork.

*Honours.*—First Class: W. H. Thompson. Second Class: D. P. Gaussen, W. J. Moynihan, J. Sheedy. Upper Pass Division: W. Barber, H. C. Brannigan, J. J. Brownlee, J. Cagney, R. W. Henderson, J. Meek, J. H. Swanton, W. Watters, P. B. White. Lower Pass Division: W. Atterbury, R. A. Barber, R. Barry, E. C. Bigger, J. W. Bullen, W. Calwell, J. Carroll, A. A. G. Dickey, P. J. Doyle, J. Ellison, R. H. Hall, J. B. Jackson, G. J. W. Johnston, R. E. Kelly, T. D. Kirk, J. Lennox, A. Lindsay, J. A. Lynch, W. R. A. M'Alister, M. M'Auley, J. M'Caw, R. M'Elwaine, J. M'Glynn, J. M'Iroy, J. M'Ninch, J. A. M. Macaulay, J. M'Mahon, H. Massey, J. Mitchell, A. P. B. Moore, S. J. Moore, A. E. Morris, J. O'Connell, C. O'Donel, D. O'Mahony, P. Quinlivan, R. Sayers, H. J. Taylor, J. Taylor, S. Wallace, E. C. Ward, B. Wilson, C. G. Woods.

#### FIRST EXAMINATION IN MEDICINE.

*Exhibitions.*—First Class, £30: E. J. M'Weeney (Scholarship), Catholic University School of Medicine. Second Class, £15 each: J. Flynn, Catholic University School of Medicine; J. A. Keogh and W. MacSweeney, Queen's College, Cork.]

*Honours.*—First Class: E. J. M'Weeney (Scholarship). Second Class: J. J. Flynn, J. A. Keogh, W. MacSweeney, J. D. H. Smyth. Upper Pass Division: A. F. Downey, J. C. Harkin, W. R. Jones, J. M'Ginness, W. K. M'Roberts, E. F. O'Sullivan, S. A. Powell, S. Ryan. Lower Pass Division: A. E. J. Birmingham, J. J. Curran, J. M. Fagan, J. F. Fagan, M. Fitzgerald, J. W. Fogarty, F. E. Gahagan, H. J. Gahagan, J. E. P. Gannon, W. M. Hamilton, E. F. Hanrahan, A. Henderson, G. Hickey, T. S. Hogg, A. M'Grath, S. M'Nair, A. P. Mooney, C. W. Morgan, T. J. Mulholland, C. H. Murray, F. E. Murray, W. Mussen, R. Nelson, C. V. H. Nesbitt, L. O'Clery, J. K. O'Connor, J. Orr, J. J. Orr, W. S. P. Patterson, N. H. Runciman, W. C. N. Sloane, W. C. Steen, G. S. Thomson, F. K. Tweedie, E. W. Waters, W. Weatherup, E. M'N. Woods.

#### SECOND EXAMINATION IN MEDICINE.

*Exhibitions.*—First Class, £40 each: J. Bradley, Queen's College, Cork; W. B. M'Quitty, Queen's College, Belfast. Second Class, £20 each: C. Bradley, Queen's College, Cork; A. Buchanan, Queen's College, Belfast.

*Honours.*—First Class: J. Bradley, W. B. M'Quitty. Second Class: C. Bradley, A. Buchanan. Upper Pass Division: F. J. Burns, H. A. Clarke, C. J. M'Grath, R. W. Nixon, T. D. Smith, E. A. Starling. Lower Pass Division: J. Barry, R. H. Brew, F. C. J. D. Browne-Webber, E. J. Chancellor, J. W. Chapman, J. J. Clarke, P. J. Cleary, J. K. Close, S. R. Collier, R. T. Condon, T. Corkery, A. Corry, T. B. Costello, J. Cree, C. F. Daly, R. H. Dickson, P. S. Donnellan, M. P. Dunlea, J. F. Eagleton, B. Forde, G. Fuller, J. F. Gordon, R. M. Griffin, P. G. Griffith, S. Horneck, C. J. Humphries, J. W. Irwin, D. T. Lane, W. M. Lewis, H. A. Logan, L. Lyttle, N. M'Bride, D. J. M'Kinny, M. M'Swiney, C. J. Macdonald, W. E. MacFeters, J. B. Massey, J. Menary, G. L. Moore, S. Moore, James Nesbitt, John Nesbitt, J. P. O'Byrne, D. J. O'Mahony, W. R. Orr, W. R. Scott, A. J. Smith, B. Sumner, J. C. Thomas, A. S. Thompson, G. Vance, J. J. Walsh, W. A. Whitelegge, M. P. Williams, J. D. Williamson, G. N. Wynne.

The list of those upon whom degrees in Medicine and Surgery and diplomas in Midwifery were conferred has already been published in our pages. At a meeting of the Senate of the University, held on Friday, October 26, on the motion of the Right Hon. Lord Emly, seconded by the Earl of Rosse, the following gentlemen were elected Medical Fellows:—In the Department of Anatomy: Christopher J. Nixon, M.B.; Joseph P. Pye, M.D., M.Ch.; Peter Redfern, M.D. In the Department of Physiology: J. J. Charles, M.D., M.Ch.; Charles Coppinger, F.R.C.S.I. In the Department of Medicine: Benjamin G. M'Dowel, M.D., M.Ch. In the Department of Surgery: Anthony H. Corley, M.D., M.Ch., F.R.C.S.I.; P. J. Hayes, F.R.C.S.E. The Fellowships are tenable for seven years, and are each worth £100 a year.

**KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.**—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, November 5, 6, 7, and 8, the under-mentioned candidates were successful:—

*To Practise Medicine.*—John Joseph Bugey, Kilkenny; Arthur Cole, Dublin; Cecil Spencer Cronin, Cork; Richard John D'Arcy, Kingstown, co. Dublin; Charles H. P. D. Graves, Cookstown, co. Tyrone; Michael Joseph McCartan, Rostrevor.

*To Practise Midwifery.*—John Joseph Bugey; Arthur Cole; Cecil Spencer Cronin; Richard John D'Arcy; Charles H. P. D. Graves; Michael Joseph McCartan; Jeremiah MacMahon, M.D. R.U.I., Cork; James Meek, M.D. R.U.I., Belfast; James Mitchell, M.D. R.U.I., Desertmartin, co. Derry; William Langford Symes, L.K. & Q.C.P. Dublin.

The following Licentiates in Medicine, having complied with the by-laws relating to Membership, pursuant to the Supplemental Charter of 1878, have been duly enrolled Members of the College:—

Thomas George Kerans, L.M. 1869, Northwich, Cheshire; Charles William M'Carthy, L.M. 1872, Clonmel; John William Kennedy, L.M. 1875, Lisburn; William Hall Owen, L.M. 1877, Liverpool.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 15th inst., viz.:—

Bowker, R. S., L.R.C.P. Edin., Sydney, N.S. Wales, student of the Middlesex Hospital.  
Bowtray, Albert, L.S.A., Calstock, Cornwall, of the Charing-cross Hospital.  
Bush, F. A. A., L.R.C.P. Edin., Old Kent-road, of Guy's Hospital.  
Dodge, M. J., Seaton, Devon, of St. Mary's Hospital.  
Fowler, Walter, M.A. Cantab., Old Burlington-street, of Guy's Hospital.  
Greenhill, G. T., L.R.C.P. Edin., Chilmington, near Ashford, of University College Hospital.  
Holyoak, Ralph, Droitwich, of the London Hospital.  
Ley, Herbert, L.S.A., Westbourne-terrace, of St. Bartholomew's Hospital.  
Lyon, T. G., Peckham, S.E., of St. Thomas's Hospital.  
Martin, J. P., Doddington-grove, S.E., of Guy's Hospital.  
Maurice, W. J., L.R.C.P. Lond., Renfrew-road, S.E., of St. Thomas's Hospital.  
Millhouse, George, Scarborough, of the Leeds School.  
Robinson, Louis, L.S.A., Tyrwhitt-road, S.E., of St. Bartholomew's Hospital.  
Ruck, D. N., Devizes, of St. Bartholomew's Hospital.  
Salmon, L. E. A., L.R.C.P. Edin., Portishead, of the Middlesex Hospital.  
Simmons, E. W., L.S.A., Warrington, of Guy's Hospital.  
Waller, C. B., L.S.A., Ipswich, of the Westminster Hospital.  
Wilson, W. E., Oldham, of the Manchester School.

Eleven gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, including one who had had an additional three months. The following gentlemen passed on the 16th inst., viz.:—

Bentlif, P. B., L.S.A., Salisbury, student of the Middlesex Hospital.  
Buckmaster, G. A., Wandsworth, of St. George's Hospital.  
Chadwick, C. S., L.R.C.P. Edin., Manchester, of the Manchester School.  
Dovaston, M. E., Camden Town, of University College Hospital.  
Hadley, W. J. A., L.S.A., Clapham Common, of the London Hospital.  
Herbert, G., L.R.C.P. Edin., Tonbridge, of University College Hospital.  
Josing, C. L., L.S.A., Gauden-terrace, S.E., of the Charing-cross Hospital.  
Kealy, J. W. G., L.S.A., Gosport, of King's College Hospital.  
Larking, A. E., L.S.A., St. Thomas's-terrace, S.E., of Guy's Hospital.  
Lee, G. T., Upper Wimpole-street, of University College Hospital.  
Leeming, R. W., L.S.A., Kendal, of University College Hospital.  
Lipscob, E. R. S., L.S.A., Woodside Park, Finchley, of Guy's Hospital.  
London, J. E., L.S.A., Berbice, British Guiana, of King's College Hospital.  
Mathew, C. P., L.S.A., Heavitree, Exeter, of St. Bartholomew's Hospital.  
Molyneux, J. F., L.R.C.P. Edin., West Battersea, of the Charing-cross Hospital.  
Moorhouse, B. M., M.B. Edin., Canterbury, New Zealand, of the Edinburgh School.  
Mumby, L. P., L.S.A., Gosport, of the Westminster Hospital.  
Oglesby, H. N., L.R.C.P. Edin., Melbourne, Derby, of the Leeds School.  
Powell, J. H., L.R.C.P. Edin., Clifton, of the Bristol School.  
Spencer, Walter, L.R.C.P. Edin., Streatham, of the Charing-cross Hospital.  
Williams, J. H., L.S.A., Llanidloes, Mont., of the London Hospital.

Four gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted Members of the College. Six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and two for three months.

With this meeting the Pass Examinations were brought to a close. One hundred and twenty-nine candidates were examined, as against ninety at the corresponding period last year. Of this number seven were referred to their professional studies for three months, thirty-five for six months, and two for the extended period of nine months—making a total of forty-four rejected candidates out of the 129 examined.

The following gentlemen passed their Primary Examination for the Fellowship of the College at a meeting of the Board on the 19th inst., viz.:—

Hutchinson, J., student of the London Hospital.  
Johnson, G. L., of St. Bartholomew's Hospital.  
Lake, R., of St. Thomas's Hospital.  
McCabe, W. A. B., of University College Hospital.  
Pearce, G., of St. Thomas's Hospital.  
Sheild, A. M., of St. George's Hospital.

Ten candidates were referred to their anatomical and physiological studies for six months. The following gentlemen passed on the 20th inst., viz.:—

Ackland, J. McK., student of the Charing-cross Hospital.  
Barendt, F. H., of the Liverpool School.  
Damian, F. G. C., of St. George's Hospital.  
Lister, J. J., of the University of Cambridge.

Twelve candidates were rejected. The following gentlemen passed on the 21st inst., viz.:—

Brito, P. S., student of the University of Aberdeen.  
Green, C. D., of St. Thomas's Hospital.  
Stiles, H. J., of the University of Edinburgh.  
Stonham, C., of University College Hospital.



Eight candidates were referred to their anatomical and physiological studies for six months.

Forty-four candidates presented themselves for this examination, as compared with thirty-six at the corresponding period of last year. Of this number thirty were referred, against eleven last year.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 15 :—

Barnett, Frank Septimus, Lancaster-road, Notting Hill.  
Barry, Donald Moore, West Drayton, Middlesex.  
Brickwell, Henry Taylor, Clapton-square, E.  
Clegg, Joseph, Flixton, Manchester.  
Higginson, Alfred, Vernon-street, Bolton.  
Jenkins, Jenkin, Ancaster, Grantham.  
Lipscomb, Edgar Richard Senhouse, Woodside Park, N.  
Mumby, Langton Philip, Spring-gardens, Gosport.  
Pratt, William Sutton, Torrington-square, W.C.  
Williams, George Forbes Crawford, Burton-road, Brixton.  
Wood, John William Atkinson, Grosvenor-street, Chorlton-on-Medlock, Manchester.

#### APPOINTMENTS.

ANDERSON, WILLIAM MILNE, M.B., C.M. Aber.—House-Surgeon to the West London Hospital, *vice* Mr. Harold Hendley, M.R.C.S. Eng., L.S.A., resigned.  
CARTER, EUSTACE G., M.R.C.S., L.R.C.P. Edin. (late General Infirmary, Leeds).—Dispensary-Surgeon to the Bradford Infirmary, *vice* — Caine, resigned.  
CHAFFEY, W. C., M.B. Lond.—Medical Registrar to the Hospital for Sick Children, Great Ormond-street, *vice* A. Money, M.D., resigned.  
GOULD, ALFRED PEARCE, M.B. Lond., F.R.C.S. Eng.—Surgeon to the Royal Hospital for Diseases of the Chest, *vice* — Walsham, resigned.  
LEWIS, C. J., M.D., M.R.C.S., L.R.C.P.—Assistant-Surgeon to the Ear and Throat Infirmary, Birmingham.  
MACDONALD, GEORGE CHILDS, L.R.C.P. and L.M. Edin.—Resident Physician to the Royal Infirmary, Edinburgh.  
MALIN, HENRY G., L.R.C.S.—Resident Medical Officer to Monkstown Hospital, Dublin.  
OWEN, EDMUND, F.R.C.S.—Surgeon to the Hospital for Sick Children, Great Ormond-street, *vice* Thomas Smith, F.R.C.S., resigned.  
REDWOOD, THEOPHILUS, Ph.D., F.C.S.—Public Analyst for the County of Middlesex.  
SAVILL, T. D., M.D. Lond., M.R.C.P.—Registrar and Pathologist to the West London Hospital.  
TOULMIN, WILLIAM CALVERT, L.R.C.P. Lond., M.R.C.S.—Honorary Surgeon to the Stamford Hill, Stoke Newington, etc., Dispensary, *vice* — Hacon, resigned.  
VOSS, F. H. VIVIAN, M.R.C.S., L.S.A. Lond.—House-Physician to the London Hospital.

#### DEATHS.

BLYTH, LOTIS GWYN, M.R.C.S., late of Martley, Worcestershire, on November 14, aged 40.  
BORCHARDT, LOUIS, M.D., of Swinton House, Fallowfield, Manchester, on November 15, aged 67.  
DAVIES, WILLIAM JOSEPH, F.R.C.S., J.P., at Penner House, near Newport, Mon., on November 18, aged 66.  
FAGGE, W. C. HILTON, M.D., F.R.C.P., Physician to Guy's Hospital, at 76, Grosvenor-street, W., on November 19, in his 46th year.  
GRINDROD, RALPH BARNES, M.D., at Malvern Wells, on November 18, in his 73rd year.  
KRAUSSOLD, HERMANN, M.D., at Frankfort-on-Main, on November 12, aged 32.  
MARRAS, ERNEST ADRIAN, M.R.C.S., L.R.C.P., of St. George's Hospital, at 10, Canning-place, on November 21, in his 30th year.  
NELSON, SAMUEL CHRISTIAN, M.D., M.R.C.S.E., at Sydney Mount, Douglas, Isle of Man, on November 15.  
WILKINSON, W. H. BEACON, M.R.C.S., at 4, Devonshire-place, Brighton, on November 20, aged 79.

#### VACANCIES.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—House-Surgeon. (*For particulars see Advertisement.*)  
COTON HILL LUNATIC HOSPITAL, STAFFORD.—Resident Medical Superintendent. (*For particulars see Advertisement.*)  
DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Dental Surgeon. (*For particulars see Advertisement.*)  
GENERAL HOSPITAL FOR SICK CHILDREN, MANCHESTER.—Medical Officer. Salary £180 per annum, without board and lodging. Candidates must be doubly qualified and on the Medical Register. Applications, stating age, with testimonials, to be sent to the Chairman of the Medical Board, Children's Dispensary, Gartside-street, on or before November 26.  
GENERAL INFIRMARY, NORTHAMPTON.—Assistant House-Surgeon. (*For particulars see Advertisement.*)  
GESTO HOSPITAL, EDINBURGH, SKYE.—Resident Medical Officer. Salary £276, with furnished house, fire and light, etc. Applications, with copies of testimonials, to be sent to J. MacLennan, solicitor, Portree, on or before December 1.  
HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Assistant-Surgeon. (*For particulars see Advertisement.*)

LIVERPOOL DISPENSARIES.—Assistant House-Surgeon. Salary to commence at £108 per annum, with apartments, fire, gas, and attendance. Applications, stating age, with testimonials and registration certificates, to be sent to R. R. Greene, Secretary, Leith Offices, 34, Moorfields, Liverpool, not later than November 26.

LONDON LOCK HOSPITAL AND ASYLUM, WESTBOURNE-GREEN, HARROW-ROAD, W.—House-Surgeon in the Female Department. Salary £100 per annum. Applications, with testimonials, to be sent to the Secretary by November 24.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, MOUNT VERNON, HAMPSTEAD, N.W.—Resident Medical Officer and Registrar. (*For particulars see Advertisement.*)

QUEEN'S HOSPITAL, BIRMINGHAM.—Honorary Physician. Candidates must be graduates in medicine of a University, and be Fellows or Members of the Royal College of Physicians of London, or Fellows of the King and Queen's College of Physicians, Ireland, or Fellows of the Royal College of Physicians, Edinburgh. The successful candidate is prohibited from engaging in the practice of midwifery, pharmacy, or surgery after his appointment. Applications, testimonials, and certificate of registration to be sent under cover to the Secretary (from whom all further information may be obtained) on or before Nov. 26.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. (*For particulars see Advertisement.*)

ROYAL PIMLICO DISPENSARY, 104, BUCKINGHAM PALACE-ROAD, S.W.—Medical Officer. Candidates must reside in the district. Applications and testimonials to be forwarded on or before December 3.

DEATH UNDER CHLOROFORM.—A girl, aged eleven, died on Saturday last at Glasgow from the effects of chloroform, administered preparatory to an operation for harelip.

VIOLENT DEATHS IN INDIA.—An official report states that the total number of persons killed by wild animals and snakes in India last year was 22,125, against 21,427 in the previous year. Of these, 2606 were killed by wild animals and 19,519 by snakes. Of the former, 895 were caused by tigers, 278 by wolves, 207 by leopards, 359 by jackals, and 202 by alligators.

PRESENTATION OF A TESTIMONIAL TO MR. LUND.—At a *conversazione* recently given by the President of the Manchester Medical Society, Dr. D. J. Leech, a testimonial, which had been subscribed for by old pupils and a few friends, was presented to Mr. Edward Lund, as an acknowledgment of the great benefits he had conferred upon the cause of medical education in Birmingham.

ADMIRALTY APPOINTMENTS.—The following appointments have been made at the Admiralty:—Deputy Inspector-General Thomas J. Breen, to Jamaica Hospital, *vice* Deputy Inspector-General Fegan; Deputy Inspector-General Henry Fegan, M.D., C.B., to Chatham Division, Royal Marines, *vice* Deputy Inspector-General Breen; Deputy Inspector-General John Breakey, M.D., to the *Pembroke*, additional, for temporary service.

ANDERSON'S COLLEGE, GLASGOW.—Prof. Bergius is to deliver in Anderson's College, during the winter, a course of lectures on Astronomy. The introductory lecture to the course was delivered on Saturday last. The fees, we understand, are to be devoted to the purchase of one or more astronomical instruments, to be given to the gentleman or lady who at the end of the course produces the best paper on astronomy after a competitive examination.

MUNIFICENT BEQUESTS TO ABERDEEN CHARITIES.—By the will of the late Mr. David Roberts, who died in 1875, allocations have just been made out of the deceased's estate to the following institutions:—Aberdeen Royal Infirmary (improvements and building extension fund), £1000; ditto for Convalescent Hospital, £200; ditto for Samaritan Fund, £100; Aberdeen General Dispensary, £100; Hospital for Incurables, £200; Hospital for Sick Children, £100; Ophthalmic Institution, £25; Cottage Home for Convalescents, at Newhills, £50.

HEALTH IN THE TROPICS.—The popular notion of the unhealthiness of life in the tropics is not corroborated by the report of Sir Anthony Musgrave, Governor of Jamaica, from the statistics given in which it appears that the mortality in the island last year was only at the rate of 20 per 1000. This indicates conditions more healthy than those of London and the environs, where the death-rate is over 21 per 1000. The Jamaica death-rate, however, would be much less than it is but for the extraordinary mortality of children under five years, which Sir Anthony Musgrave attributes to incompetence of native midwives, and ignorance and carelessness of mothers. Of the total deaths in a year, 38½ per cent. are deaths of children of this tender age.



**LUNATICS IN FRANCE.**—Of 46,000 lunatics now under treatment in the various establishments in France, only 10,000, or 22 per cent., are at the exclusive charge of their families.—*Union Méd.*, October 27.

**SEAMEN'S HOSPITAL.**—Nineteen collecting-boxes for the funds of this charity were placed in the different courts during the Fisheries Exhibition, with the result that £38 was collected. As the Hospital has just been obliged to borrow £1000 to meet current expenses, this sum is hardly likely to materially diminish its difficulties.

**THE LAW RESPECTING LUNATIC WITNESSES.**—The United States Supreme Court has recently decided, "A lunatic or person affected with insanity is admissible as a witness if he has sufficient understanding to apprehend the obligation of an oath, and to be capable of giving a correct account of the matters which he has seen or heard with reference to the questions at issue; and whether he has that understanding is a question to be determined by the Court upon examination of the party himself and any competent witnesses who can speak to the nature and extent of his insanity."

**EXTIRPATION OF THE THYROID.**—In the *Archives Générales* for September, Dr. Le Bec states that of 203 cases of this operation which he has collected, 172 were cured and 31 proved fatal—a mortality of 15·6 per cent. But if the cases of thyroidectomy for cancer (an operation which should never be performed) are abstracted, there remain 25 deaths, or 12·3 per cent., for parenchymatous or cystic goitre. Susskind, in his thesis on the operation, points out the decrease in the mortality since the operation was first practised. Thus, before 1850, he refers to 44 operations with 18 deaths, or the enormous mortality of 40·9 per cent.; and Brière Yverden, in 1871, cites 73 cases with 23 deaths, or 31 per cent. Between 1850 and 1877, Susskind finds the mortality reached to 19·4 per cent.; and now, as stated above, it is 12·3 per cent., owing to the superiority of the antiseptic treatment, and the greater care taken in selecting fitting cases: so that, well performed, and in suitable cases, thyroidectomy is not a more dangerous operation now than amputation of the thigh or hip-joint.

**HEALTH OF GLASGOW.**—The Health Officer's report states that during the fortnight ending November 10, 1883, there were 472 deaths registered, as compared with 469 in the fortnight preceding—representing a death-rate of 24 per 1000 living. The report mentions that typhus fever still maintains the position gained last fortnight, and is distributed pretty uniformly through the various districts. A remarkable group of cases was formed by six persons who were all employed in a large umbrella factory, and in one department, viz., the "home frame-making department." There was no other connexion save that. Their residences were in various and widely separated parts of the town, but all worked in one room in the factory, and all sickened within the space of one week—four, indeed, on the same day. The room was capacious, well ventilated, and not at all crowded. The health officer has not been able to trace the individual by whom the infection was introduced; it is a proof, however, of the transportation of typhus by means of the clothing of some one who lived in a typhus-loaded atmosphere. Instances of this are constantly observed.

**RAW EGGS AS A NUTRITIOUS ARTICLE OF DIET.**—While referring to the successful trials of the dietetic power of the powder of dried beef-blood made in Paris by Dr. Guerder, the *New York Medical Record* (September 15) goes on to say:—"In this connexion we may also speak of another article—highly nutritious, easily digested and retained, and but little used—viz., raw eggs. The only objection to their use is the individual objection of the patients, and this only before the first is taken—for they seldom object afterwards. The egg may be broken into a glass, care being taken that the yolk is not broken, and a little salt and pepper added if desired. The patient has scarcely the trouble of swallowing it, for it goes down of itself. We have seen patients retain easily and even relish a raw egg who could retain nothing else—more than 600 having been taken in one case within three or four months. It goes without saying that the egg should always be carefully selected; and, indeed, for fear that one which has seen its best days should disgust the patient, it were better to prepare the eggs out of his sight."

## VITAL STATISTICS OF LONDON.

Week ending Saturday, November 17, 1883.

### BIRTHS.

Births of Boys, 330; Girls, 1273; Total, 2633.  
Corrected weekly average in the 10 years 1873-82, 2735·3.

### DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	882	799	1681
Weekly average of the ten years 1873-82, corrected to increased population ...	891·4	876·7	1768·1
Deaths of people aged 80 and upwards ...	...	...	64

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	6	1	6	4	1	3	...	5
North ...	905947	...	9	8	8	8	...	12	...	5
Central ...	282238	...	2	3	...	3	1	6	...	1
East ...	692738	...	15	26	1	6	...	5	2	2
South ...	1265927	...	15	17	10	12	...	10	...	6
Total ...	3816483	...	47	55	25	33	2	36	2	19

### METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·727 in.
Mean temperature ...	...	...	...	...	...	39·4°
Highest point of thermometer ...	...	...	...	...	...	50·9°
Lowest point of thermometer ...	...	...	...	...	...	27·8°
Mean dew-point temperature ...	...	...	...	...	...	35·2°
General direction of wind ...	...	...	...	...	...	Variable.
Whole amount of rain in the week ...	...	...	...	...	...	0·31 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 17, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Nov. 17.	Deaths Registered during the week ending Nov. 17.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2633	1681	22·2	50·9	27·8	39·4	4·11	0·31	0·79
Brighton ...	111262	61	49	23·0	51·1	31·1	39·9	4·39	0·58	1·47
Portsmouth ...	131478	94	61	24·2	...	...	...	...	...	...
Norwich ...	89612	58	38	22·1	...	...	...	...	...	...
Plymouth ...	74977	37	30	20·9	52·7	32·5	42·0	5·56	1·11	2·82
Bristol ...	212779	123	89	21·8	50·0	22·5	37·9	3·28	0·30	0·76
Wolverhampton ...	77557	44	25	16·8	45·7	23·9	34·8	1·56	1·29	3·28
Birmingham ...	414846	263	159	20·0	...	...	...	...	...	...
Leicester ...	129483	70	39	15·7	46·5	25·8	36·2	2·33	1·25	3·17
Nottingham ...	199349	117	93	24·3	46·4	21·0	36·3	2·39	0·42	1·07
Derby ...	85574	58	37	22·6	...	...	...	...	...	...
Birkenhead ...	88700	54	44	25·9	...	...	...	...	...	...
Liverpool ...	566753	352	287	26·4	48·0	32·6	40·0	4·44	0·59	1·50
Bolton ...	107862	71	54	26·1	45·1	28·1	37·4	3·00	1·07	2·72
Manchester ...	339252	203	217	33·4	...	...	...	...	...	...
Salford ...	190465	126	102	27·9	...	...	...	...	...	...
Oldham ...	119071	87	52	22·8	...	...	...	...	...	...
Blackburn ...	108460	68	64	30·8	...	...	...	...	...	...
Preston ...	98564	73	52	27·5	46·0	29·5	37·4	3·00	0·47	1·19
Huddersfield ...	84701	47	44	27·1	...	...	...	...	...	...
Halifax ...	75591	38	33	22·8	...	...	...	...	...	...
Bradford ...	204807	111	78	19·9	45·0	29·2	37·6	3·12	0·28	0·71
Leeds ...	321611	187	162	26·3	47·0	30·0	39·2	4·00	0·35	0·89
Sheffield ...	295497	215	129	22·8	46·0	26·0	38·6	3·67	0·35	0·89
Hull ...	176296	128	55	16·3	...	...	...	...	...	...
Sunderland ...	121117	93	47	20·2	...	...	...	...	...	...
Newcastle ...	149464	111	68	23·7	...	...	...	...	...	...
Cardiff ...	90033	59	39	22·6	...	...	...	...	...	...
For 28 towns ...	5620975	5581	3828	23·2	52·7	21·0	38·2	3·44	0·64	1·63
Edinburgh ...	235946	121	90	19·9	46·0	28·3	38·0	3·33	0·05	0·13
Glasgow ...	515589	328	291	29·5	45·2	23·0	34·4	1·33	0·24	0·61
Dublin ...	349885	159	169	25·2	49·2	21·2	39·1	3·95	0·75	1·90

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·73 in.; the highest reading was 30·03 in. on Wednesday morning, and the lowest 29·37 in. on Saturday afternoon.



## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

## THE ROGERS TESTIMONIAL.

The following is the fourth list of subscriptions:—Edwin H. Roe, Esq., Patricroft, Manchester, £1 1s.; Dr. Edwards, 12, Orchard-street, Portman-square, £1 1s.; Dr. Welch, 377, Hackney-road, £1 1s.; Dr. Brett, Watford, £1 1s.; Dr. Bramwell, Tynemouth, £1 1s.; W. P. Mills, Esq., Ipswich, 10s. 6d.

## THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—A. B. C., £1 1s.; A. D., 10s.; Dr. H. C. Andrews, £1 1s.; A. H. W. Ayling, Esq., £1 1s.; Wright Baker, Esq., £1 1s.; A. E. Barker, Esq., £1 1s.; Wm. Bird, Esq., J.P., £5; Dr. R. L. Bowles, £2 2s.; Wm. Bowman, Esq., £5; Mrs. Budd, £1 1s.; Major Childs, £1 1s.; G. R. Cooke, Esq., £1 1s.; Mrs. Cronin, £2; Edward Ellis, Esq., 10s.; F. T., £1 1s.; Dr. Fitzpatrick, 10s. 6d.; Trevelyan Frampton, Esq., 10s. 6d.; C. C. Fuller, Esq., £2 2s.; Geo. H. Furber, Esq., £1 1s.; F. J. Gant, Esq., £1 1s.; Dr. John Harley, £1 1s.; James Harris, Esq., £1 1s.; Caesar Hawkins, Esq., £5 5s.; Dr. H. Horton, 10s. 6d.; Dr. G. How, £2 2s.; Jonathan Hutchinson, Esq., £5 5s.; S. May Kendall, Esq., £2 2s.; Dr. Kirby, £3 3s.; Dr. J. C. Langmore, £1 1s.; H. Laver, Esq., 10s.; Dr. Little, £2 2s.; J. B. Martin, Esq., £2 2s.; J. W. Mason, Esq., £1 1s.; J. Merryweather, Esq., £3 3s.; Prof. Pettigrew, £1 1s.; L. D. Powles, Esq., £1 1s.; Dr. Renner, 10s. 6d.; Dr. Ringer, £2 2s.; Surgeon-Major Spencer, £5; Dr. Tayler, £2 2s.; Prof. Turner, £5; John Wiblin, Esq., £2 2s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

## MEDICAL BULLETINS.

## TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The spirit of your leading article on "Medical Bulletins" theoretically is everything that the highest-minded practitioners of medicine could wish for; and if it could be effused into the profession generally, into the "big men" as well as into the "lesser men," doubtless the social standing of the profession as a whole would be considerably enhanced. I venture to think, however, that the attainment of such a standard is hardly possible in such a many-sided profession as that of medicine. Apart from the personal element of medical men, there are social differences in the classes among whom they labour, which utterly preclude a hard-and-fast line of action. I fear you will have to discourage other forms of advertising as well as the issuing of medical bulletins if you are going to be really consistent; and I hope, if the College of Physicians follows out your suggestion, that it will legislate on broad general principles, and not on the narrow line of discouraging merely one particular form of publicity. I never take up a medical paper that I do not see some one or other of the many forms which advertising nowadays assumes. First and foremost come, of course, direct advertisements, of a book, or atlas, or pamphlet; even reprints from the columns of some of the journals are advertised week after week—at a ruinous cost, if truth be told—by men holding the highest diplomas which our colleges can give.

Our hospitals and their medical schools are largely advertised—in the lay as well as in the medical press,—giving the names and qualifications of the staff, and repeating them over again, as lecturers on this or demonstrators of that subject. Thus the medical student is, from the very commencement of his studentship, or even before, surrounded by an atmosphere of advertisement, which grows with his growth, and finally becomes rooted in him. Is it any wonder that this should show itself again when, having obtained his qualifications, the student has to get into practice? Can there be so much harm, he thinks, in just making his name a little known by a friendly notice in a paper, seeing that he himself had first become acquainted with his teachers and hospital by means of an advertisement—probably in one of the large daily papers? Or, having done well in practice, and being called in to attend some "big gun" (a man, perhaps, whose life and health are of paramount importance in his own county or district), can there be so very much harm in signing a bulletin which is eagerly sought after by a great number of local personages, seeing that in every medical paper, and in not a few lay papers also, the names of the most prominent teachers and leaders in the profession are being constantly advertised in one way or another? I think, sir, the desire to be advertised must be as strong in the patient as in the doctor: and it is very probably part of the same spirit—a growing spirit, and characteristic of the age—to which you alluded, which now induces the clergy to advertise themselves and their churches; which leads the nobility to chronicle their dinners and their dances; the legal profession to associate their names, day after day, with the trials on which they are engaged; and which makes "every petty celebrity" anxious to appear in print in one capacity or another. I have just said it is the characteristic spirit of the age, but it as doubtless exists in response to the public demand, as any and every other marketable commodity. If there were no demand for such information the supply would cease.

The question is, could we get on without advertising? I think not. But I think the personal element might be left out. Guy's or Bartholomew's School of Medicine could be advertised without the personal element, and the more so as this element is unnecessary. To the new students the names convey nothing; to those who re-join the information is superfluous; while to the general public it is puff and advertisement, pure and simple. As regards books, these should be advertised from time to time; the titles and publishers' names would suffice; the addition of press notices (many of them distinctly misleading) is low and unworthy of a good man as it is unnecessary for a good book. The advertising of a small pamphlet—a shilling reprint, for instance—ought to be condemned altogether.

At Liverpool the British Medical Association incidentally discussed medical advertising, and, during the discussion, a small handbill which had been issued by a doctor in some poor neighbourhood was handed round; it was hooted and hissed by men who were, to my thinking, just as reprehensible as the weak brother himself who had issued it. They who live and practise in the richer parts of London should have compassion on us who live

among the poor, and should be thankful that their lines are cast in pleasanter places. The kind of advertisement on which the former ride to practice is doubtless of a different class from the unfortunate handbill just alluded to, but, before they condemn it, let them be quite sure that their own record is *sans peur et sans reproche*. To suppress advertising completely will need the concurrence of the whole profession, but especially of the leaders. Let them set the example, let them begin by advertising the schools with which they are associated privately—that is, by the publication of a calendar similar to the calendars issued by Oxford and Cambridge. These Universities each attract more students than the London hospitals, and that too without the advertising which the latter think it necessary to adopt. Let them suppress their names on the bulletins which are issued, whoever the personages may be, etc. In other words, let them cease advertising in any and every shape. Lesser men will not be slow to follow their example. I am, &c.,

Commercial-road, E., November 10.

EAST-ENDER.

[We admit that there is much reason in our correspondent's objection, but the relation of a teacher to his class or of an author to his readers stands on an entirely different footing from that of a doctor to his patient. Each relation may be looked upon commercially, but it is a thousand times more important to keep the last-named free from any taint of trade than the two former. An author or a teacher sells his wares for an equivalent; each is a commercial transaction, and though we would not have it conducted on the lines of ordinary commercial morality, we see no very crying evil in the fact that such wares are for sale being made widely known. No doctor, on the other hand, would admit that his relation to his patients is purely commercial. Everyone who has the interest of the profession at heart is anxious rather to increase than to diminish the sanctity of that relationship, and to insure this it is necessary that the system of medical bulletins should be discountenanced. Apart from that, it seems to us in quite as bad taste to allow one's name to appear at the bottom of a bulletin as it would be to advertise in the papers that one was the friend of this or that celebrity. If the present system is carried to its logical conclusion, some day perhaps we may expect to see some such announcement as the following:—"Dr. A. B. has been appointed private medical adviser to her Grace the Duchess of E., vice Dr. X. Y., dismissed for incompetence and neglect."—Ed. *Med. Times and Gaz.*]

*Munificent Bequests.*—The late Mr. James Bain, of Helensburgh, made the following bequests to certain charities in Glasgow, which have now been paid, viz.:—Glasgow Royal Infirmary, £500; Glasgow Western Infirmary, £500; Association for the Relief of Incurables for Glasgow and West of Scotland, £100; Glasgow Blind Asylum, £100.

*The Bradshaw Lecture.*—This discourse, founded by the widow of Dr. W. Woods Bradshaw, F.R.C.S., in memory of her husband, will be delivered in the theatre of the Royal College of Surgeons on Thursday, December 6, by Mr. John Marshall, F.R.S., President of that institution, who has chosen for his subject, "Nerve-Stretching for the Relief or Cure of Pain."

*The Howard Medal.*—The Howard Medal of 1883, with £20, was presented on November 20 to Dr. R. D. R. Sweeting, Medical Superintendent of the Western District Fever Hospital, Fulham, for "The best Exposition of the Experiences and Opinions of John Howard on the Preservation and Improvement of the Health of the Inmates of Schools, Prisons, Workhouses, Hospitals, and other Public Institutions, as far as Health is affected by Structural Arrangements relating to Supplies of Air and Water, Drainage, etc."

*The Howard Association.*—The last annual report is, as usual, comprehensive in the variety of questions it deals with, and alike interesting and instructive. Touching the popular subject of temperance, the report contrasts the result of moral persuasion and law as reformatory agents, and attention is directed to the more effective operation of the law restricting licences to a fixed ratio of population, as enforced in Holland, than that of total prohibition, as attempted in the United States. In the one case, legislation had resulted in a decreased consumption and less drunkenness; in the other, in increased consumption and more drunkenness.

*University of Cambridge.*—The Special Board for Medicine publish, for the guidance of students proceeding to medical and surgical degrees, the following schedule, defining the range of the examination in elementary biology under the regulations which come into effect on January 1, 1884:—*Elementary Biology:* The examination will have reference to—1. The fundamental facts and laws of the morphology, histology, physiology, and life-history of plants as illustrated by the following types: *Saccharomyces*, *Protococcus*, *Mucor*, *Spirogyra*, *Chara* or *Nitella*, a fern, *Pinus*, and an angiospermous flowering plant. 2. The fundamental facts and laws of animal morphology, as illustrated by the following types: *Amœba*, *Paramœcium* or *Vorticella*, *Hydra*, *Lumbricus*, *Astacus*, *Anodon*, *Amphioxus*, *Scyllium*, *Rana*, *Lepus*. Under the head of vegetable physiology the student will not be expected to deal with special questions relating to the more highly differentiated flowering plants. He will be expected to show a practical knowledge of the general structure of each of the animal types above specified, and an elementary knowledge of the chief biological laws which the structural phenomena illustrate. He will also be expected to show an elementary knowledge of the general developmental history of *Amphioxus* and of *Rana*. He will not be expected to deal with purely physiological details.



**Royal College of Surgeons.**—At the half-yearly Primary or Anatomical and Physiological Examination for the Fellowship of the College on the 16th inst., when forty-four candidates presented themselves, the following were the questions on Physiology submitted to the candidates, when they were required to answer at least three out of the four questions, between nine and twelve o'clock noon, viz.:—

1. Give an account of the development of a long bone; describe minutely the changes that occur in the formation of the compact structure.
2. What are the constituents of the bile? Give an account of their origin and destination, and describe the tests by which they may be recognised.
3. What are the functions of the skin? How is the temperature of the body governed by the nervous system? Give the evidence on which your statements rest.
4. Describe the development of the spinal cord. State what is known of the paths of conduction in it. Describe the methods by which these paths have been investigated.

—The following were the questions on Anatomy, three of which out of four were required to be answered, between one and four o'clock, viz.:—

1. Give the dissection required to expose the chorda tympani nerve from its exit from the canal of Huguier to its termination.
2. Describe the relations of the arch of the aorta and its branches to the neighbouring structures and the walls of the thorax. Mention the chief peculiarities which have been met with in its position, and in the origin and number of its branches. Illustrate these occasional variations from development and from the permanent condition of the arch and its branches in the lower vertebrates.
3. Compare and contrast the muscles of the human hand and foot.
4. Describe the dissection required to expose the whole of the posterior surface of the descending colon.

**Taking a Coroner to Task.**—The Chairman of the Quarter Sessions held at Gloucester last month expressed regret at having again to draw the attention of the Court to the inquests held by Dr. Grace. It was found that the doctor's practice as to holding inquests was not that which was commonly adopted by the other coroners. For some reason Dr. Grace held fewer inquests than they did in proportion to the notices of death sent by the police, and this appeared in a marked degree. He (the Chairman) did not say that they could have the same proportion of inquests to notices sent in all cases. During the quarter Dr. Grace had held inquests in only sixteen out of thirty-two cases reported to him, and though the Court had no power to interfere if a coroner exercised a sound judgment as to holding an inquest, yet the Committee felt that in five or six of the cases reported to Dr. Grace an inquest was almost necessary. After some discussion the Court unanimously agreed that the doctor should be summoned to attend an adjourned session. On Saturday last, Dr. Grace attended the adjourned session to answer the allegations preferred against him. The cases above referred to were gone into at length, and Dr. Grace explained why, in the exercise of his discretion, he had not thought inquests necessary. In one case an illegitimate child had died suddenly while in the custody of its grandmother. Dr. Grace said he was satisfied that the child died from atrophy, while the fact that the child's life was insured, and that death took place before the insurance could be claimed, further tended to show there was no suspicion in the case. In a second case an inmate of a union workhouse had complained that a nurse had shaken her, and the master of the workhouse asked for an inquest. Dr. Grace said the medical officer certified the cause of death, and satisfied himself that there had been no ill-treatment. In a third case a child died of scarlet fever after two days' illness, and no doctor attended. Dr. Grace said that even if the parents had been guilty of culpable neglect in not getting medical attendance for the child, he did not consider an inquest would have been of any service, for the Peculiar People, who on principle objected to medical attention, were never convicted for their neglect. Other cases having been explained away by Dr. Grace, the County Chairman said the magistrates had modified the opinion which they had previously held, and would let the matter drop if Dr. Grace would in future adhere more closely to the directions of the Lord Chancellor as to the duties of coroners.

**Dr. Robert White, Trinity, Newfoundland.**—Letter and enclosure received.

#### COMMUNICATIONS have been received from—

Sir ANDREW CLARK, Bart., M.D., London; Dr. J. MITCHELL BRUCE, London; Dr. HERMAN, London; Dr. THOROWGOOD, London; Dr. JULIUS DRESCHFELD, Manchester; THE SECRETARY OF THE PARKES MUSEUM, London; THE SECRETARY OF THE MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. T. H. BARTLETT, Birmingham; Dr. TIRARD, London; Mrs. HOGGAN, M.D., London; Dr. ALEXANDER HARVEY, London; Mr. NOBLE SMITH, London; Dr. NORMAN KERR, London; Mr. H. R. BELL, London; Dr. J. MILLER, Southsea; Mr. BECHER, London; THE EDITOR OF THE "OXFORD TIMES," Oxford; Dr. J. W. LANGMORE, London; Mr. W. NICHOLAS, London; Dr. R. G. HEBB, London; Mr. T. M. STONE, Wimbledon; Dr. CLIFFORD BEALE, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; THE EDITOR OF "SOCIETY," London; Dr. SUTHERLAND, London; Dr. CURNOW, London; Dr. A. T. THOMSON, Glasgow; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; Mr. WICKHAM BARNES, London; THE SECRETARY OF THE UNIVERSITY OF LONDON; Mr. ALBAN DORAN, London; THE EDITOR OF THE "SANITARY ENGINEER," New York; THE SECRETARY OF THE RAILWAY-PASSENGERS' ASSURANCE COMPANY, London; THE HOUSE-SURGEON AND HOUSE-PHYSICIAN OF GUY'S HOSPITAL, London; THE HON. SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE SECRETARY OF THE STATISTICAL SOCIETY, London.

#### BOOKS, ETC., RECEIVED—

On Infantile Spasmodic Paralysis, by W. B. Hadden, M.D., M.R.C.P.—Fallacies, by Alfred Sidgwick—Medical Diagnosis, by J. Graham Brown, M.D.—Report on the London Water-Supply—Address to the Members of the Anti-Slavery and Aborigines' Protection Societies upon the Native Question by the Transvaal Deputation—The Dissector's Manual, by W. Bruce-Clarke, M.A., M.B., and Charles Barrett Lockwood, F.R.C.S.—Report on the Sanitary Condition of the Whitechapel District for the Quarter ended September 29, 1883—Der Torfmoos-Verband, von H. Leisrink—Surgical Experiences in the Zulu and Transvaal Wars, by D. Blair Brown, F.R.C.S.—The Sanitary State of the British Troops in Northern India, by Surgeon-General A. C. C. De Renzy, C.B.—Manual of Psychological Medicine and Allied Nervous Diseases, by Edward C. Mann, M.D.—Compendium der Pathologisch-Anatomischen Diagnostik, von Dr. Johannes Orth—Index Catalogue of the Library of the Surgeon-General's Office, United States Army, vol. iv.—Report on the Sanitary Condition of the Wandsworth District during the Year 1882—Selections from the Clinical Works of Dr. Duchenne, by G. V. Poore, M.D.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Denver Medical Times—West Sussex Gazette, November 8—Manchester City News, November 10—Journal of the British Dental Association—Canadian Practitioner—Manchester Guardian, November 18—Revue de Chirurgie—Revue de Médecine—Weekblad—American Psychological Journal—Croydon Advertiser, November 17—Portsmouth Times and Naval Gazette, November 3—Inventors' Record—Alienist and Neurologist—Le Scalpel—Canada Lancet—Ottawa Sanitary Journal—Therapeutic Gazette—Australian Medical Journal.

#### APPOINTMENTS FOR THE WEEK.

November 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### 26. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. Francis Mason, "On a Case illustrating the Treatment of the Præmaxillary Bone in Hare-lip" (living specimen). Mr. Gay: Demonstration of Veins connected with the Hepatic System. Mr. Spencer Watson, "On Recent Improvements in Rhinoscopy and the Treatment of Polypus in the Nose." Mr. Startin will show a Case of Elephantiasis of Traumatic Origin.

#### 27. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE (4, St. Martin's-place, W.C.), 8 p.m. Dr. J. G. Garson, "On the Cranial Characters of the Inhabitants of Timor-laut." Mr. H. O. Forbes, "On some of the Tribes of Timor." Dr. G. B. Barron, "On a Human Skull found near Southport."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Sydney Ringer and Dr. H. Sainsbury, "Investigation into the Action of the Digitalis Group." Mr. Cowell will exhibit Four Cases of Congenital Dislocation of both Femora (which will be on view half an hour before the meeting), and he will make some comments upon them before its close.

#### 28. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. John Tatham, "On Chronic Pneumonia and Fibroid Phthisis," with Cases.

HUNTERIAN SOCIETY, 8 p.m. Dr. Bedford Fenwick, "On some Common Causes of Coughs."

#### 29. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Mr. Cresswell, "On Hydatids."

PARKES MUSEUM OF HYGIENE, 8 p.m. Dr. Charles Kelly, "On Diseases caused by Sanitary Defects in Houses."

#### 30. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.





## CLINICAL LECTURES.

By J. MATTHEWS DUNCAN, M.D., F.R.S.,

Physician-Accoucheur and Lecturer on Midwifery  
at St. Bartholomew's Hospital.

### LECTURE I.

#### RETROVERSION OF THE GRAVID UTERUS.

THOUGH retroversion of the gravid uterus is far from being common, we have in "Martha" two or three cases of it every year, and quite recently there have been three; and it is necessary you should know it well, for in all such cases as come into the hospital the disorder is grave and demands immediate interference. It may, indeed, have induced disease of the bladder, which may last long and be dangerous to life, while the original disorder has been easily remedied by replacement. Only last month a patient in "Martha" died of sloughing of the bladder, the consequence of treatment being too long delayed.

Retroversion of the gravid uterus is a well-known condition occurring in the third or fourth month of pregnancy, and accompanied by retention of urine—much commoner in multiparæ than in primiparæ. It is on this that I am to lecture, and not on anything else unless with a view to illustrate or explain this; and, following my predecessors, I use the word retroversion for all cases of it. In most cases there is some flexion, at the internal os uteri or lower, but I am not to bother you with this refinement because, so far as we at present know, there is nothing important consequent on changes in the point of chief flexion, whether it be in the neck of the womb or in the upper part of the vagina. Of course there is flexion somewhere, and it is here, as in the unimpregnated organ, really a matter of indifference whether it is the vagina that is flexed, or the cervix uteri, or the junction of the cervix and body, or all three in one continued curve.

It is common to include in retroversion of the gravid uterus rare and extraordinary cases where there are, in the pelvis, and there only, conditions somewhat like those of our disease, the excavation well filled, as you see in this diagram of Oldham's case, the cervix high behind and close to the symphysis; the rest of the uterus being naturally developed in the abdomen, and pregnancy advanced far beyond the fourth month, it may be even to the full term; and the urine not retained. But such cases have altogether a different pathology, and should not be classed with our well-characterised retroversion with retention of urine. In these cases of advanced pregnancy the uterus is not really retroverted, but has a peculiar pouching of the posterior wall, the pouched part protruding downwards into the pelvic excavation, and pressing the cervix forwards and upwards. I have recorded one case where the cause was old persistent perimetric adhesions and parametric atrophic induration around the retroverted organ, which, becoming pregnant, did not assume its natural position and relations; but its lower posterior part swelled and grew inside the pelvis, while the examination of the abdomen generally revealed only natural conditions.

Though it is a forced interpolation, I may take this opportunity of mentioning that in advanced pregnancy we have two kinds of anteversion. Of these, one is the common pendulous belly, the uterus falling through or distending extremely the linea alba and distending the peritoneum and skin. The other is extremely rare, and I have seen only one case of it—in a primipara. In this case the uterus was anteфлекted, and could not be replaced as in the common pendulous belly; it was really not displaced secondarily, but grew into this peculiar shape and position.

As we do not include these cases of advanced pregnancy, so we do not include cases of early pregnancy—that is, before the third month,—nor, indeed, cases of the third and fourth month if there is no retention of urine.

When a woman with a displaced uterus becomes pregnant, it may assume early what is called a normal position. Or, a woman becoming pregnant with the womb in a normal position, may soon have it displaced. Or, she may become pregnant with the uterus displaced, the organ remaining so during the early months.

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There may be no symptoms caused by retroversion in the first three months of pregnancy, and nothing to announce the gradual ascent of the uterus into its ordinary position in the abdomen. But a woman, especially if she is sensitive, may have, as a consequence of retroversion in the earliest months, disagreeable feelings of pressure, of bearing down, or of hæmorrhoidal or vesical irritation. That these feelings are due to the displacement is shown by their disappearance when the organ is replaced. Sometimes such replacement is maintained by a Hodge pessary; and if this is the case, and if at the same time disagreeable symptoms are removed, the pessary should be worn till the advancement of pregnancy renders it useless. I have seen several cases where the pessary was inefficient. Sometimes women themselves replace the organ, simply by a few minutes of the genu-pectoral position with a loose or bagged state of the anterior abdominal wall; and this replacement is maintained till the woman resumes the erect position. When the womb goes up, a peculiar feeling announces the change of position to the patient, and so also when it comes down. In cases of this kind the womb gradually resumes its right position as pregnancy advances, or it ceases to come down on the assumption of the erect position, when its size gets large when compared with the brim of the pelvis, through which it tends to prolapse. The womb is sure gradually to grow up without causing disturbance if retention of urine does not occur; and if it comes down retroverted on assumption of the erect position, it will cause no great disturbance on condition that retention of urine does not occur.

You now can understand how great is the importance of retention of urine in the third and four months of pregnancy. Were I authorised to recast medical nomenclature, I would not speak to you of retroversion of the gravid uterus, but of retention of urine, in the third and fourth months of pregnancy. The displacement of the womb is not the greatest fact in this matter, but the retention of urine. It is the overfilling of the bladder which causes the grave symptoms, increases the retroversion, and leads into danger to life. Retention occurring during retroversion in the third or fourth months of pregnancy constitutes the disease; and the overfilling of the bladder increases the retroversion, while the increasing retroversion renders spontaneous evacuation of the bladder more and more difficult. Indeed, though I cannot state an observation in attestation, I do not doubt that repletion of the bladder may be not only the cause of the symptoms and danger, but also the cause of the retroversion. Generally it is the other way—the displacement causes the retention.

Retroversion of the gravid uterus, as a grave disorder, is produced in two ways. Either retention of urine occurs in the course of a pregnancy in a retroverted uterus, and the case is by this occurrence at once rendered grave, made a case of the kind; or, a jump or fall suddenly forces the large uterus down from the abdomen into the pelvis, and this uterine descent with retroversion causes retention, and again you have at once a grave case of the kind.

Great curvature of the sacrum with projection of the promontory may prevent the gradual rising of a retroverted uterus, and predispose to a case of this kind; or the same shape of sacrum may prevent the spontaneous replacement of the uterus when suddenly driven into the pelvis by a jump or fall, or such accident.

Urine being retained, the case is constituted, and symptoms develop themselves. They are ill-defined—pains about the pelvis, disturbance of defæcation and of urination, and the belly enlarges.

The patient may have very little trouble of urination, for the bladder may become extremely distended without much suffering; but generally there is at first intense unsatisfied desire to urinate, which soon decreases or passes off as the bladder gets greatly distended. Urination may be quite arrested—generally it goes on more or less copiously, the urine passing involuntarily, or being squeezed out by bearing down and by pressure on the abdomen. The bladder gradually becomes enormously large, and I am sorry I cannot name the extreme limit of its capacity, but it may contain many pints—in D.'s case there were nine pints; it rises to the epigastrium, generally affecting the left rather than the right side of the abdomen; it forms a loose rather than a tense sac when very large, and the urine fluctuates freely. Indeed, I have known the distended bladder taken for a unilocular ovarian cyst.



The urine, I have said, is passed more or less copiously. It is limpid and of low specific gravity (1010), and is secreted in great quantity, often up to 200 ounces in a day—polyuria. There is enough to supply an ordinary, or even greater than ordinary, amount passed in frequent urinations, and, in addition, what overfills the bladder. The retention is not complete. This polyuria persists for at least several days after the bladder is regularly emptied artificially or spontaneously.

In this, as in healthy states of the bladder, evacuation is a result not of contraction, but of collapse; the bladder, measured by sound from orifice of urethra to its fundus, may be eight inches before evacuation, and it is eight inches after it; and the regaining of natural dimensions of five or six inches is generally a slow process, even if urination is spontaneous. The urine may have to be drawn off only once or many times—it may be, as in a case in "Martha," for six weeks.

I have said that the urine is limpid, and fortunately it generally is so. But, when cases of retroversion are not properly treated, the bladder becomes inflamed, the mucous membrane destroyed and separated, and the muscular tissue exposed; and this evil begins at various times in the progress of the case. Sometimes it is not till this takes place that the woman complains, and before complaining, as in one of our recent cases, there may have been combined retention and dribbling for many weeks. The urine, then, is not limpid, but nearly opaque, loaded with mucus, pus, and generally also with blood, the last tinting it not pink or bright, but brown and dark. This state of urine is always alarming, for it indicates the setting up of inflammation and ulceration of the bladder. Here is a museum specimen where the whole mucous membrane of the bladder has separated and come away as a nearly complete sac or bladder. You can easily understand that, in such inflammation, suffering and danger are both very great. Yet exceptions to this occur, for we have recently had a case, with copious bloody urine loaded with pus and mucus discharged from a bladder measuring eight inches, in which the woman required for a long time the use of the catheter, yet she had no pain, and her pulse and temperature did not rise above normal.

Perimetritis, with consequent adhesions, is a common source of difficulty in cases which have been neglected or mismanaged. Instances, indeed, are recorded where still more terrible results occurred—sloughing of the vagina and posterior uterine wall, and discharge of the uterine contents in this way; sloughing of the anterior wall of the bladder and of the anterior abdominal wall, and discharge of the urine in this way.

Examining per vaginam, in a case of retroversion, you find the pelvic excavation more or less completely occupied by a globular, hard tumour pressed into it from above. It can also be well felt per rectum, this gut being expanded on it, and lying between it and the sacrum. The finger, introduced per vaginam, reaches the os uteri by a passage which is very narrow antero-posteriorly; it has to be pressed between the globular mass occupying the pelvis and the symphysis pubis, and the cervix uteri is near the upper margin of the posterior surface of the symphysis. Sometimes, but rarely, it cannot be reached.

The diagnosis is often to be made only with great care; sometimes it is very difficult; and it consists in making out what this globular mass is. If the symptoms of pregnancy are well marked, then you have to decide between retroversion and extra-uterine pregnancy. If the symptoms of pregnancy are not distinctive, then you may have a retro-uterine perimetritic abscess, or a retro-uterine hæmatocele, or a fibroid. Other tumours are excessively rare.

Occasionally, feeling the tumour to be rounded, elastic, hard, and as if not connected with the pelvic wall, you try to replace with a view to diagnosis.

The grand source of error in diagnosis is ignorance or forgetfulness of two circumstances: that a woman with great retention and bladder enormously distended may have no striking bladder-trouble; and that she may be passing urine in what appears natural quantity, or even more than natural, while retention persists.

And now for treatment. In principle it is simple, and in practice it is generally easy and successful. The urine is drawn off, and the uterus is replaced. Often nothing more is required; and all this may be done in a few minutes.

But let us suppose we have a case of some duration, and in which there is some difficulty.

The woman is sent to bed; the lower bowel is evacuated; the bladder is emptied by catheter. Then the patient is placed in the genu-pectoral position, and so as to have negative abdominal pressure, the anterior abdominal wall hanging loose or bagged; and this a woman can do on having the matter explained. In the genu-pectoral position negative abdominal pressure is the natural condition, and in this position gravity helps the fall of the uterus from the pelvis into the abdomen. If it do not fall, pressure is applied to push it into the abdomen. The axis of the pelvic brim is nearly vertical, and the direction of pushing is nearly in this axis, and it is effected by two fingers in the vagina, or, still better, in the rectum. You are not to expect the uterus to be replaced at once; and you are not to use great violence, for you may perforate the posterior uterine wall by your fingers. You push strongly, nearly as strongly as you can, by the ends of your fingers, and the womb gradually leaves the pelvis. The patient is made to lie down; the uterus is now felt above the pubes, and a vaginal examination discovers the pelvis empty and the cervix in its natural situation. Lest the womb should come down again, the woman should lie quietly in bed for some days. Care has to be taken that the bladder is regularly and completely evacuated, spontaneously or artificially.

In cases where you fail to replace you may simply wait, keeping the bladder empty, and the uterus may ascend spontaneously, as in one of our recent cases.

If, on waiting, the case becomes worse, symptoms of strangulation of the uterus in the pelvis coming on, you proceed to evacuate the uterus. This I have never had to do. It is effected in the same way as abortion is, in other circumstances, induced, but with difficulty in consequence of the position of the os uteri, and the narrowness and length of the passage to it. Sometimes it is induced by withdrawing the liquor amnii through the vagina and posterior uterine wall by trocar and cannula.

## APNŒA OR ASPHYXIA.

ON SOME NOTABLE DISCREPANCIES OF STATEMENT IN RECENT PHYSIOLOGICAL WRITINGS AS TO FUNDAMENTAL FACTS IN THE PROCESS OF DEATH BY SUFFOCATION.(a)

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### PRELIMINARY OBSERVATIONS.

THE whole subject of death from suffocation is one of surpassing interest. Able physiologists have at different times applied themselves to the elucidation of it,—to observing the phenomena that attend and characterise it; the events and changes that take place within the lungs, in the heart, and in the bloodvessels, from the time that the air is first excluded from the lungs to the final arrest of the heart's action. They have also carefully noted the changes that ensue or the events that follow on the readmission of air into the lungs and the full restoration of the heart's action in cases in which that expedient is successfully resorted to. Further, they have made it their business to explain the whole set of facts, phenomena, and changes that attend this process from first to last, as well in cases that end fatally as in those in which recovery from impending death is successfully accomplished.

(a) For many years past, physicians, as well in America as in this country, following herein the advice of Sir Thomas Watson, have designated the mode of dying from suffocation by the name of APNŒA—*privation of breath*. Of late years, however, our physiologists, disregarding this usage, have come to apply and to restrict it to undue insufflation of the lungs, or to the breathing of pure oxygen, leading to abnormal arterialisatation of the blood and suspension of the respiratory process. For reasons that will appear in the sequel, the author of this paper has adhered to the name given it by Sir Thomas—*Apnœa*,—except when quoting from writers who make use of the older designation—*Asphyxia*.



It is no part of my present purpose to go into the history of research in this field, highly interesting as that history is. My purpose is to call attention to two notable (among several minor) discrepancies in recent physiological writings—discrepancies bearing on the state of the pulmonic blood-vessels and of the cavities of the heart, in respect of contained blood, at the moment of death. These discrepancies, moreover, relate to facts in the history of that process which must be regarded as fundamental; and they affect as well the theory of the process as the explanation of the beneficial action of the artificial respiration.

The *first* of these discrepancies relates to the state of the pulmonic capillaries at the moment of death; the *second*, to the state of the *left* cavities of the heart at the same stage—the moment of death.

*First*, as to the former of these. 1. It was believed by Dr. Alison, and indeed it was the basis of his theory of asphyxia—a belief acquiesced in by Dr. John Reid—that after death the capillaries of the lungs are full of venous blood. And, in keeping with this view, Dr. Alison held that the pulmonic veins, the left cavities of the heart, and the systemic arteries are empty of blood, while the pulmonic artery and its branches, the right cavities of the heart, and the systemic veins are full of it. According to Dr. Alison, the block by which the entire circulation is brought to a standstill lies in the capillaries of the lungs, and this from the blood not undergoing there the requisite changes whereby it is converted from venous into arterial blood. Further, he based on this the existence of a moving power supplementary to that of the heart's action, but essentially independent of it, and capable when in abeyance of effectually counteracting that of the heart.

2. On the other hand, and in opposition to this view, Dr. George Johnson, the distinguished Professor of Clinical Medicine in King's College, maintains that these capillary vessels are quite *empty*, or virtually quite empty, of blood, and the lungs themselves *anæmic* and *collapsed*. His views as to this, and the proofs adduced by him in support of them—both stated with singular clearness and relevancy—are fully brought out in his *Lumleian Lectures* on the "Muscular Arterioles," delivered before the Royal College of Physicians in 1877, and published in the *British Medical Journal* for that year; the first of these lectures being devoted to the subject of Apnœa, in which, according to him, the muscular arterioles play the essential part. It may here be observed that Dr. Johnson is supported in his views by no less an authority than Prof. Rutherford, of Edinburgh, who performed the experiments described by him.

3. Again, to take one of our latest systematic writers on physiology—Prof. McKendrick, of Glasgow. Writing the year following the publication of Dr. Johnson's lectures (1878), he distinctly affirms, under the head of "Asphyxia," that "on examining the body, the venous system generally, the right cavities of the heart, and the *capillaries* of the lungs are found to be full of blood, whilst the arterial system is nearly empty" ("Outlines of Physiology," page 402).

Now, as regards the state of the pulmonic capillaries in apnœa, we have here a striking discrepancy, and that too on the part of physiologists of great eminence. It is a discrepancy, moreover, as we shall see, as to a fundamental fact in the history of that process.

*Secondly*.—So much, meanwhile, for one of the discrepancies referred to. Another is to be met with in an essay by Dr. Fagge, of Guy's Hospital, headed "On the Different Modes of Dying," and published in *Guy's Hospital Reports* (third series, vol. xxiv., page 349, 1879).

Dr. Fagge there informs us that *at the moment of death* in asphyxia, as occurring in animals experimented on, "in which it is possible to determine the state of the heart's chambers," at that particular stage, "they are seen to be all gorged with blood—the *left* ones as well as the right." This, in as far as regards the left chambers, is (or seems to be) thoroughly at variance with what has heretofore been taught. But, deferring comment meanwhile, let us see what Dr. Fagge says further. "If in ordinary autopsies (he remarks) in the human subject the left auricle and ventricle are found comparatively empty, whereas the right ones are distended, it is because the former unload themselves during the setting-in of the rigor mortis."

But what at the stage now in view—the moment of death

—is the condition of the pulmonic capillaries and pulmonic veins? Are they also full of blood, or are they, as Dr. Johnson affirms, at least as regards the former, empty? If the left cavities are then full, surely the vessels in question must be full also. Again, if, at the moment of death, these vessels are full, it is clear that they must remain full after the rigor mortis has done its work—has emptied the left cavities. For this tonic contraction, designated rigor mortis, is of such a nature as not to admit of these left cavities again dilating to receive a further supply of blood from behind. It can only suffice to squeeze out the blood that was in them at the moment of death.

As to the state of the vessels in question at any stage, Dr. Fagge says nothing. But how his allegation as to the state of the left cavities at the time of death must affect Dr. Johnson's theory of apnœa, will be at once apparent. If his allegation be true, the capillaries of the lungs will then be full of blood, and Dr. Johnson's theory must fall to the ground; and Dr. Alison's also.

It will appear hereafter that Dr. Fagge's affirmation is supported by Prof. M. Foster, and also by Dr. Kirkes, or by the editor of the ninth edition of his "Handbook of Physiology," published in 1876. But I defer further comment regarding it till I have considered Dr. Johnson's facts and reasonings on this whole subject of Apnœa—his presentation of which is singularly full, clear, and explicit.

I. In APNŒA, at the moment of death, are the pulmonic capillaries full or empty of blood?—Dr. Johnson's theory of Apnœa.

Dr. Johnson, as we have seen, affirms that, at the moment of death, the capillaries of the lungs are empty—virtually quite empty of blood. And his theory of the process is based on the fact that the minute arteries of the body, pulmonic and systemic, are furnished throughout with a delicate layer of muscular fibres, laid circularly between the external investing and the internal lining coat; and, further, that these muscular fibres are under the controlling agency of a system of nerves. These minute arteries he designates "*muscular arterioles*," and their nerves the "*vaso-motor*." At the instance of these nerves the arterioles contract, their contraction being such as either simply to impede or altogether to arrest the flow of blood into and along the adjoining capillaries; while, at the same time, this contraction, according to its degree, augments the blood-pressure behind. This contraction of the arterioles he designates their "*stopcock*" action.

1. Now, on occasion of the access of air to the lungs being at once and completely excluded, the blood, albeit no longer arterialised, continues to pass through the lungs and is distributed to the system at large. On its reaching the small systemic arteries, however, the vaso-motor nerves, finding that the blood is not of the right sort, but venous, give intimation of the fact to the arterioles. These contract—exert their stopcock action,—but to such an extent as to impede only, not to arrest the passage of blood through them. Simultaneously with the contraction of the arterioles, the systemic blood-pressure is augmented, with the result of causing the left cavities of the heart (auricle and ventricle) to dilate and become distended with blood, the distension being greater and more marked in the auricle because of its being much the more distensible of the two cavities.

The venous blood holding on its way, although impeded in its course, returns to the right side of the heart, and passing through it, reaches the small pulmonic arteries. Here a singular result follows. Accustomed the pulmonic arterioles are to the presence of *ordinary* venous blood: they allow it to pass freely through the pulmonic arteries into the capillaries of the lungs. Not so, it would appear, to venous blood which, as such, has once passed through the systemic capillaries. On *this kind* of venous blood reaching them, their vaso-motor nerves take alarm, advising the arterioles of impending danger. Whereupon, the arterioles, exerting their stopcock action, contract, yet not as do their systemic fellows. Instead of merely impeding the onward flow of blood, they gradually, yet rapidly, put a complete arrest to it. The passage of blood is blocked—and permanently blocked,—none now gaining access into the pulmonic capillaries.

Again, as before with the systemic, on the pulmonic



arterioles thus contracting, the pulmonic blood-pressure is raised, and the right cavities of the heart come to be dilated and distended with blood, the auricle standing out prominently as a large, tense, round ball.

Concurrently, or nearly so, with this filling of the right cavities, that of the left subsides; and very quickly they cease to be distended, and assume their natural condition.

It may here be observed that the augmentation of the pulmonic blood-pressure very quickly follows, or follows in the course of a minute or thereby, that of the systemic; and that the right cavities begin to dilate and become distended while yet the left cavities are full. It may further be observed that while the systemic blood-pressure is but partial, the pulmonic blood-pressure is complete and abiding—permanent.

It would further appear that during the whole process, until the final arrest of the circulation at the pulmonic arterioles and by reason of the complete and persistent contraction of these, there is but *one* augmentation of the systemic blood-pressure, and but *one* augmentation of the pulmonic.

Dr. Johnson's own account of the process is briefly as follows; the details being filled in by him here and there in his first lecture:—

The access of air to the lungs having been cut off, "immediately the colour of the left auricle changed from crimson to purple, and the kymograph indicated a continuous increase of pressure in the systemic arteries. After the increase of pressure had continued for about a minute, the left cavities of the heart became much distended; the auricle, in particular, became expanded into a tense globular ball with a smooth surface. In the next period the pressure on the arteries began to fall, and, about the same time, the right cavities of the heart, which had hitherto remained of the normal size and form, began to expand, while the distension of the left began rapidly to subside. Meanwhile, the right cavities became more distended; and now the right auricle assumed the appearance of a round, tense ball, while the left auricle had become nearly empty and flaccid. The right ventricle also became so distended that it projected above the level of the left. This was the condition of the heart's cavities when the animal died by the final arrest of the circulation" (the Lumleian Lectures on the "Muscular Arterioles," etc., Lecture I., *British Medical Journal*, 1877).

It would thus appear that while venous blood is allowed to make one circuit as such through the lungs, it is not allowed to make a second. And this appears from the circumstance recently adverted to, and seen when the process is witnessed on the opened chest and exposed heart of a living dog, of there being but one augmentation of blood-pressure, systemic and pulmonic, from first to last.

2. In connexion with the foregoing, it may be observed that no other agency is alleged by Dr. Johnson to be concerned in the arrest of the circulation in apnœa than that of venous blood which, as such, has once passed through the general system.

It is not incumbent, indeed, on Dr. Johnson to show cause why such venous blood should have that effect. Enough if it be the fact that it has the effect in question. Yet, strange enough one cannot but deem it. That the systemic arterioles should demur to the passage of venous blood through them—used as they are to that of arterial blood only—one can understand. But why the pulmonic should be so sensitive to venous blood of the kind in question is sufficiently remarkable.

In passing from the arteries through the systemic capillaries, venous blood cannot, of course, subserve the purposes of arterial; it cannot undergo the changes through the interchange of materials between it and the tissues which arterial blood does. Its quality must in some way or in divers ways be different from that of ordinary venous blood. But wherein does it so differ from such venous blood as to exert the effect it does on the pulmonic arterioles? It may fairly be questioned whether either chemical analysis or microscopic inspection would throw any light on the question.

3. Let us now consider the evidence adduced by Dr. Johnson in support of his theory of apnœa.

\* Yet let us first of all see clearly what is the main basis of the theory. Dr. Johnson affirms that at the moment of death the pulmonic capillaries are empty—virtually quite empty—of blood. We shall hereafter see the physiological value of this qualifying term *virtually*. It has no bearing on the theory itself, but an important bearing on the process of resuscitation. He does not affirm that the vessels in question are *absolutely* empty, but only that they are (to repeat the expression as the best, as most truly representing the facts of the case) *virtually* empty.

"At the moment of death" is an observation made once and again by Dr. Johnson; and rightly so. For it is plain that the immediate cause of death in apnœa must be sought for in the state of matters which then obtains. It may be that some hours after death the state of the lungs and of their capillary vessels is not what it was at the moment of death. Blood may gradually make its way into them, after the arterioles have become relaxed, from the distended parts behind, favoured by rigor mortis of the right ventricle. And this may account for the discrepancies of statement formerly adverted to as met with in physiological writings bearing on this process.

a. It may be premised that, were the theory put forth by Dr. Alison, and supported by Dr. John Reid, the true one, or were the allegations made by them and by Dr. McKendrick in conformity with the actual facts of the case—namely, that the pulmonic capillaries are full of blood at the moment of death,—then, on examination made directly after death, the lungs should be found *distended* and *filling the cavity of the chest*, and (containing only venous blood) *livid* throughout. How stand the facts? Referring to the post-mortem examination of a dog killed by simple apnœa, Dr. Johnson says:—"The lungs collapsed to an *extreme* degree; they were *pale* and non-crepitant" (Lect. I.). Again, speaking of the exact seat of the impediment which arrests the flow of blood into the lungs, he remarks that "the extreme *anæmia* of the minute tissue of the lungs, when examined immediately after death, in cases of acute apnœa, is evidence that the stoppage occurs *before* the blood has reached the capillaries." Again, in reference to another point presently to be adverted to, he speaks of the "*nearly bloodless* state in which the capillaries of the lungs are actually found to be." Again, referring to the apnœa produced by the inhalation of the *nitrous oxide gas*, and to the result of examination after death in experiments he had witnessed, Dr. Johnson says:—"The lungs were *anæmic* and *collapsed throughout*."

b. The foregoing seems decisive as to the state of the lungs in respect of contained blood. They are *bloodless* and *anæmic* and *collapsed*. "If (he says), in accordance with the hypothesis of Alison and Reid, the blood were attracted into the capillaries and retained there, . . . the capillaries would be in a state of *engorgement*, and not in the nearly bloodless state in which they are actually found to be."

It must be borne in mind that the lungs are not and cannot be absolutely bloodless. They must contain all and whole the blood that lies pent up in the branches of the pulmonary artery distributed through them. And this must amount to a not inconsiderable quantity, albeit, in view of the pulmonic capillaries and the pulmonic veins, and the receptive capacities of these, alleged to be empty, the quantity will be *relatively* small. Accordingly, while one need not be surprised at a statement quoted by Dr. Johnson from Dr. Massey, of Nottingham, regarding a man hanged there—to wit, that "on cutting out the lungs, a large quantity of black blood flowed," and that "the colour of the lungs was of a darker hue than natural, *especially at the base*,"—he will be prepared to understand that elsewhere and for the most part they were *anæmic*; and further, and very particularly, that on opening the chest "the lungs were found to occupy a *very small space* at the back part of the chest, resembling the contents of a *fœtal thorax*"—a case in which the lungs, having received neither air nor blood, are naturally in a state of collapse or compression.

Yet, to advert now to the qualifying expression "*virtually*," formerly made use of—"virtually empty,"—it is highly important that note should be taken of a circumstance bearing on the condition of the pulmonary capillaries, and this (as before observed) because of its bearing on the efficacy of the



artificial respiration. Empty as these vessels are found to be and the lungs themselves anæmic at the moment of death, the capillaries do and must contain a small, a very small quantity of blood at their origins or just beyond the confines of the arterioles. And it is easy to understand how they should. The arrest of the blood's movement through and along these vessels is not a sudden arrest. The stopcock action of the pulmonic arterioles, although energetic enough and rapid enough, is yet *gradual*; and the effect of it on that movement correspondingly gradual. The venous blood at the first, and for a brief space, passes freely through the pulmonic capillaries; after a time, and very shortly it is, it begins to be impeded, and its movement rendered slower, till the acme of stopcock action is reached. Altogether, the movement must be in such wise affected that, while the mass of blood is driven off from the *ensemble* of the capillaries and these left empty, a small quantity of blood will yet pass through, and (the heart's action now languishing, or else the blood only now trickling through) will lodge in that part of the capillaries that is adjacent or contiguous to the arterioles, enough to admit of the air reaching it on its re-admission to the lungs, and so, in favourable cases, of the circulation being restored.(b)

c. The evidence already adduced seems abundantly sufficient to establish Dr. Johnson's allegation as to the state of the lungs in respect of contained blood.

Were Dr. Alison's theory the true one, it is plain that these organs, being full of *venous* blood, gorged with it instead of being *collapsed* and so reduced in size as to be pushed into the back part of the chest, and for the most part *anæmic*, would be livid throughout instead of at the base alone, and would fill and distend the whole cavity of the chest. According to Dr. Alison, the obstacle to the exit of blood from them lies within the lungs themselves, and results from the loss of the auxiliary moving power supposed by him to be derived from the conversion of the venous into arterial blood. The obstacle may in fact, in a certain sense, be said to lie at the origin of the pulmonic veins—avowedly not at the origin of the pulmonic capillaries.

According to Dr. Johnson's view, the obstacle lies at the origin of these capillaries, in fact at the terminal ends of the pulmonic arteries; and the state of the lungs, as met with directly after death, harmonises with that view. The lungs are collapsed, shrunken, reduced in size, and anæmic throughout except at the base.

But, in connexion with this, there is a piece of evidence which might have been made more of by Dr. Johnson than has been done by him. It is the very notable *projection* of the right auricle. This fact, duly considered, seems to me admirably to *cap* the other proofs adduced by him. It is the near proximity of the obstacle to the auricle that accounts for that projection, and specially it is the inability of the lungs to admit the mass of blood that is pressing on from behind to flow into them and so be *diffused* through them. Were there no obstacle at the beginnings of the capillaries, the *receptive* capacity of the lungs is such and so great that the organs in question would admit an enormous quantity of blood to pass into them, and be spread through them. In this way the whole mass of blood would be diffused over a very large area. The pressure of it would be laid on equally over all that area, and then the projection in question could not arise. How great that distension is, Dr. Johnson has himself taken note of. Yet it appears more strikingly in a quotation he makes from Harvey in his "Second Dissertation on the Circulation of the Blood." Speaking of the inspection, within two hours after death, of the body of a man who had been hanged, Harvey says as to the distension of the right auricle of the heart, "that it was of the size of a large man's fist, and so full of blood that it looked as if it would burst" (Sydenham Society's translation, page 127).

4. Before leaving Dr. Johnson's theory there is yet another point which seems to call for a passing notice.

It is one arising out of the restoration of the circulation by means of the artificial respiration in persons rescued from impending death by apnoea.

(b) The propriety of the expression "*virtually*," in respect of the state of the capillaries as empty, will now, it is hoped, appear. To say that they are *nearly* empty would convey no such idea of the state of matters as is requisite in order to a right understanding of the whole process.

Now, in view of Dr. Johnson's theory, it may occur to some to ask, How, agreeably to that theory, can the artificial respiration avail in any case? If the capillary vessels are empty of blood, how can the air by any possibility reach the blood pent up in the small pulmonic arteries—arteries lying behind, lying beyond the range of the air-cells of the lungs? It is to the capillaries overspreading these air-cells and to the blood contained in them that the air stands related. And yet these capillaries are said to be empty of blood. We have already given what we believe to be a full and sufficient answer to this very natural question (*supra*, p. 624). Although, as there pointed out, the capillaries are empty, as a whole—virtually quite empty;—there is yet at their origins, and a little way within these, enough of blood, and this at ten thousand different points, for the air on its readmission to act on it, and, arterialising it, to effect the restoration of the circulation.

Were it otherwise—were there absolutely no blood lying at the points indicated, were it all pent up behind the arterioles,—it is inconceivable that the artificial respiration should in any case avail to the saving of life, once the stopcock action had effectually done its work throughout.

It is, however, it must be admitted, a matter of inference that the state of things is as has here been represented. The actual condition of the vessels in respect of blood at the junction of the small pulmonic arteries and the pulmonic capillaries has not as yet, as far as I am aware, been made the subject of special microscopic inquiry. And it seems desirable that such inquiry should be made. The determination of the assumption is not, indeed, needed for the establishing of Dr. Johnson's theory. It is needed only to enable us to understand, in conformity with that theory, how the artificial respiration should avail as it does to effect resuscitation in cases of suspended animation from apnoea. The theory itself, entirely due to Dr. Johnson, and a singularly simple and beautiful one, is now, in my opinion, placed beyond all challenge by the ample body of evidence adduced by him in support of it.

(To be continued.)

## A DEMONSTRATION OF THE VEINS CONNECTED WITH THE HEPATIC SYSTEM.(a)

By JOHN GAY, F.R.C.S.,  
Senior Surgeon to the Great Northern Hospital.

HAVING been invited to take part in providing subjects for thought and discussion during the evenings of the season on which we have entered, I felt that, however incompetent I might be, for many reasons, to cater for your interest and to your advantage, I could not decline the compliment paid to me. And, on consideration, I thought I could not better occupy your time for half an hour, although quite in contravention of the usual course of our proceedings, than by drawing your attention to some (hitherto, I believe, unknown) anatomical facts that bear upon doctrines with which we have long been familiar, but the foundations of which, being laid during what I may call the transitional period of anatomical research, may very reasonably become subject to modification if rightly transferred to some other and more substantial basis.

In rooms that have been supplemented by this splendid hall through the energy and influence very largely of our distinguished Fellow, Mr. Bryant, I delivered, in the season 1837-38, some lectures (the Lettsomian) on some special diseases of the veins; and from that time I conceived such, I might almost say, love for the general subject of the venous system, that what little time and strength I have since had at command I have given in great part to its further study. This has been more than repaid by the abstract enjoyment I have derived from that source. Every little scintillation of light that has fallen on my mind has given me indescribable pleasure, for on these matters it was almost a *tabula*

(a) Communicated to the Medical Society of London November 26, 1883.



*rasa*, so little had I been able to gather of a practical character from books or teachings of any kind relating to that subject. I could not pursue it, as I have done by the aid of injection and the scalpel, without getting some little information that was new, and it occurred to me that I might agreeably vary the course of the inquiries and disquisitions that have usually made the subjects of our evening work here, if I employed a part of this in a demonstration of the veins, which appears to me a nearer approximation of the relative anatomy, especially of the thoracic and its tributary vein system, than that which has hitherto been accepted. I say a "demonstration," for a paper on such a subject without demonstration would be open to doubt and perhaps cavil, and be of little or no use in an effort to render it advantageous to science. The facts I am about to relate are the results of a series of experiments by injections, conducted for a long time past with every effort to render them exact, intelligible, and reliable.

The conclusions at which I have arrived, and of which I can entertain no doubt or question, relate mainly to the free anastomosis of veins of the trunk, even in parts where valves exist and might be supposed to interfere with such freedom of intercourse. I began the series in the human subject, then I took monkeys, and subsequently, to satisfy the inferences they yielded, had again recourse to human anatomy. After trying a variety of injections in monkeys, which failed of their purpose on account of their dying from disease (usually phthisis), I got a macaque from the Zoological Gardens that died apparently without any pathological lesions that could stand in my way; and Mr. William Pearson, at the College of Surgeons, injected it with wax. This he did with a certain amount of success, enough for my purpose, although my friend Prof. Flower was good enough with his critical eye to see defects and to draw my attention to them.

The injected specimen is before you, but I regret that I have been unable to procure a duplicate more fitted for my purpose. When fresh it was a very beautiful object; Prof. Humphry, Sir James Paget, and other anatomists, including Prof. Flower, examined it carefully, and admitted the success, so far, of the injections as I have described it. But it has suffered from the attempts to preserve it; still, I hope it contains evidence of the points I desire to establish.

Prior to and since that injection I have had opportunities of obtaining injections in the human subject at Mr. Cooke's admirably contrived and well-stocked anatomical studio, in a little burial-ground near the Foundling Hospital. To my friend Mr. Cooke, and the means afforded me by the resources of that interesting and comparatively perfect retreat, I am to a very large extent, and indeed well-nigh exclusively, indebted. These were made, and followed by sectional display of the vessels and parts by Mr. Monteille, recently of Prof. Humphry's School, and now at the museum at St. Thomas's Hospital, to whom I am much indebted for seconding my efforts; as well as to Mr. Pearson, to whom I am beholden for the opportunity of showing the macaque before you.

The results of these injections exactly correspond, and will, I trust, help to lay the foundation in some important respects of the new reading of vein anatomy to which I have alluded, and to which I will solicit your more particular attention.

As it bears considerably on the azygoid and related systems, I will first offer a few remarks on their historical anatomy, with the hope of showing the excellent work done on the revival of learning in Europe, especially in Italy and farther east.

At the end of the second century the learned physician of Pergamos founded anatomy by observation, and made it a science. But he imperfectly understood the nature or uses of the azygoid veins. It was not until the time of Eustachius that these veins became known; he published a series of plates on their anatomy, and was followed by Volthier Coiter, of Gröningen, who improved our knowledge of these veins, and, at the same time, invented that much, and in some respects well, abused practice of vivisection. Fabricius de Aquapendente followed up the inquiry, until we come to Canini, who more thoroughly examined these vessels, and first brought to light the fact of their having valves; and onwards to our immortal Harvey, who gathered up all the fragments of knowledge that had been collected by these great masters, and landed them on the *terra firma* of the great discovery of the circulation.

At present, a latent suspicion has been awakening in favour of abstract physiological research as the means of advancing the science of healing and the practice of medicine, rather than anatomy or than consolidating its base by elucidation of what is still obscure and has been least explored in our knowledge of anatomy. To this view I am tempted to demur.

Both are good, but perfection in anatomical details must antedate and form the substratum of all physiological advance.

The oscillations in the progress of physiological sciences, as well as all rightful progress in the art of medicine, correspond very much with the fluctuation in the advance of anatomical truth. It is not my design—indeed, I cannot add to or improve the knowledge we possess of the anastometical relations of the veins. This is very perfectly supplied by the works of Gray and Quain, and well known to everyone. The veins form together a network of intercommunication throughout the body. Every venule and vein contributes to the extradition of its blood from its capillary reservoir, and its complete return and full discharge into the systemic veins, with a certain and co-ordinate amount of free oscillation in order to provide against casual or designed obstruction. In its way to the heart this is the course of the blood-stream, and it is marvellously provided for by the arrangement of the sinuous channels which conduct it. Here I must interpose the statement that all the trunk veins, like the muscular or axial veins of the extremities, appertain to the systemic system, whilst the collateral run exclusively and without exception through the cutaneous or superficial veins. If you want to get any communication between the most remote portions of the systemic veins you will have to deligate the inferior cava at its entrance to the heart, and above the hepatic trunks, and trust to cutaneous channels for its establishment.

My first statement bearing upon the fact related is, that if you inject a tributary vein, large or small, in any part of the body—as, for instance, of the internal mammary,—in the trunk or in the limbs, and in any direction either backwards or centripetally, the injected fluid (if thin enough for permeation) will fill every vein throughout the body, and extend into its finest ramifications. The macaque exhibited is the proof to which I have referred. You will observe that there is no vein or vein-twig that is not fully injected, and from that one point, the internal mammary. This I believe to be a new fact in the vein circulation. I have put its proof to the test by a considerable number of experiments, and in no one instance have I failed, provided the animal was healthy.

In order to examine the communications, even where these are apparently exposed to valvular interruption, as in the azygoids, its vessels must be injected by two distinct methods and from different points: first, forwards from an iliac, renal, or sacro-lumbar (a systemic) vein; and then, after tying its trunk, in another subject, backwards or in a direction opposed to the natural currents, from the orifice of a remote collateral (e.g., an internal mammary or internal jugular) vein. I have caused these methods of injecting this department of the vein system to be adopted several times. In the first, the flow of the injection will be checked by the valves at the junction of the thoracic with the azygoid intercostals. In the second, it will take a circuitous route, but enter the azygoid trunks by these veins.

The next point is, that the injection in taking this course fills every interposing organised structure. It will traverse the lungs, liver, kidneys, and, as I have every reason to believe, the spleen, supra-renal capsules, the thyroid, and other parenchymatous structures.

The third is, that it does not follow that because one large organ such as the liver, or even the other parts of the body, are thus injected, all or any parts or organs should be equally so filled.

In the case of a subject injected by Mr. Monteille (at present lying in Mr. Cooke's studio for observation by anyone desiring it), the lobules of the liver were completely injected from the jugular and femoral veins, but no part of the fluid had passed into it by the portal vein. This vein was empty. And this is quite possible, for the course of the injections might be first from the superior, which receives the trunk of the inferior, phrenic, and their conjoined single vein into the external hepatic, and thus into the liver; for the phrenics anastomose freely with the lower intercostals, and mammary blood flows



into the heart through the azygoids. The spermatic vein on the right side passes into the superior cava, on the left into the renal as well as into the cava. The injection might also fill the inferior hæmorrhoidal. This completes the proof that the whole of the vein-blood from the nearest to the most remote parts of the trunk can have free access to the hepatic globules without being dependent on the portal veins for its conduct, so that it would appear that these veins are not exclusively portal to that organ. By the network already alluded to, the liver is accessible to blood equally from all parts of the vein system.

The bearing of this inquiry and its results on physiological science is far from being remote as to its consequences. It shows that blood depuration by organic textures does not depend so much upon the means of access to the liver and other excreting organs of the blood from every part of the body, as upon the healthy performance of their functions. Any interruption to either the first or second of these necessary conditions will be followed by marked local evidence, such as a sallow tint corresponding with the area over which they have failed of being fulfilled.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

TESTIS IN PERINÆO—TENDERNESS IN BOTH TESTES—SUCCESSFUL REMOVAL TO THE SCROTUM.

(Under the care of Mr. MARSHALL.)

[For the notes of this case we are indebted to Mr. VICTOR HORSLEY, B.S., Surgical Registrar to the Hospital.]

ROBERT B., aged sixteen, a cabinet-maker, was admitted into University College Hospital on May 5, 1882, under the care of Mr. Marshall.

*Present State.*—The left half of scrotum is of normal size, and contains a testicle which seems healthy and well-developed, but which is very tender. The right half of the scrotum is small and empty. The testicle, which is even more tender than the left one, is of fair size and consistence; it generally lies a little below the external ring, just above the entrance to the scrotum proper. It can be easily pressed down lower; but it then misses the scrotum, and goes almost into the perineum. The boy is otherwise well developed and well nourished.

*Past History.*—The boy gave the following account of himself:—About four years ago he was running and fell down. On getting up he experienced difficulty in walking and pain in the groin. This passed off next day; but ever since he has felt from time to time a similar pain when he walks quickly, lifts heavy weights, or coughs. Occasionally this pain comes on so severely that he has to leave off work. While at work a few days ago this pain came on so severely that he came to the hospital and was admitted. The pain in the left testicle came on yesterday for the first time.

May 9.—*Operation.*—The patient being under ether, Mr. Marshall made an incision just inside the inguino-scrotal fold, and freed the testis from its surroundings. It was then pressed towards the scrotum, and attached to it by means of a loop of catgut, passed into the tunica vaginalis through the lowest part of the scrotum, to which it was then tied. The edges of the wound were then brought together. There was very little hæmorrhage. Antiseptic precautions and dressings were adopted.

10th.—Temperature 102·6° Fahr. The patient has had a rather restless night; he has been retching a good deal; complains of headache. Wound was re-dressed. There is considerable tenderness.

11th.—Temperature 101·2° Fahr. Patient is much better; retching and vomiting have ceased.

13th.—Temperature 99·6° Fahr. Wound re-dressed; a few drops of dark blood-clot were squeezed out of the wound. The testicle remains in its new position, but continues very tender.

17th.—The antiseptic gauze dressings were replaced by boracic lint. Testis continues in its new situation. There is little pain in it. Left testis, however, continues tender.

20th.—In dressing the wound this morning, pads of lint were adjusted so as to press the testis down on the scrotum.

30th.—The wound is gradually healing up, the testis remaining in its new position. He gets up every day, and goes about the ward in a wheel-chair.

June 7.—He was discharged. The testes remained rather tender.

*Remarks* (by Mr. Victor Horsley).—The case above quoted is of especial interest from the rarity of the condition. The testicle may be found situated in the perineum from two causes—(1) congenital malposition, and (2) dislocation. The present case falls under the latter category, but it is worth while to glance generally at the subject, especially as up to quite recently operation as a remedial agent has not been very successful. I have been able to collect twenty-nine other cases arising from one or the other of the above-mentioned causes. Of these, in seventeen cases the malposition occurred eight times on the left side and nine times on the right, so that there would not appear to be any special tendency for the deformity to appear on either side in particular. The dislocation of the testicle backwards into the perineum has occurred at varying ages: thus, in the present case the accident causing the deformity happened at twelve years of age, while in other cases it has resulted from severe blows even when the subject has been a full-grown adult (9). The chief importance of the subject lies in the remediation of the condition, since the testicle in its unusual position is the source of great inconvenience, and frequently of severe pain. In the present case this was the prominent symptom, and one calling for active interference. Up to 1879 (18) the attempts made in this direction (5, 9, 15) were not successful, the wound suppurating, and in two cases the patients died in a few weeks (5, 15). The sources of failure appeared to be two in number, viz., first, the septic state of the wound, and, secondly, the want of power to retain the testis in its new position. These were met successfully first by Annandale (18) in the strict employment of Listerian dressings and by sewing the lower end of the tunica vaginalis to the bottom of the scrotum with a catgut suture, as indeed had already been done by Adams (15). In the present case this course was adopted in its entirety, and the result completely justified the measures taken. Now that the causes of failure are thoroughly understood and counteracted with perfect success, it is not too much to say that all imperfectly palliative means, such as the employment of trusses, etc., are archaic, and should be replaced by an operation conducted under strict antiseptic precautions, and in which the testis is secured in its new position by some non-irritative suture. As the cases are scattered far and wide, I append for the convenience of subsequent workers, in tabular form, all the hitherto recorded cases, together with a reference to their place of publication:—

Literature.

	Surgeon.	Cases.	Where published.
1.	Hunter ... ..	2	Quoted by Curling.
2.	Godard ... ..	1	"Recherches sur les Monorchides, etc.," 1866, Pl. iii.
3.	Ricord ... ..	...	s. Le Dentu; also <i>Provincial Med. Journal</i> , 1843, page 264.
4.	Vidal de Cassis	*2	" <i>Traité de Pathologie Externe</i> ," tome v., page 432, deuxième édition.
5.	Curling ... ..	8	" <i>Diseases of the Testis, etc.</i> ," 1878.
6.	Ledwich ... ..	1	<i>Dublin Quar. Jour. of Medical Science</i> , February, 1855, page 76.
7.	Zeis ... ..	1	<i>Langenbeck's Archiv für Klin. Chirurgie</i> , Bd. ii., S. 87.
8.	Hutchinson ...	2	Quoted by Curling.
9.	Partridge ...	1	<i>British Med. Jour.</i> , 1858, page 549.
10.	Friedinger ...	1	1861.
11.	Förster ... ..	1	Quoted by Kocher, in <i>Jahrb. f. Kinderheilkunde</i> , 1863 { Billroth and Pitha's "Handbuch der Allg. u Spec. Chirurgie," Bd. iii.
12.	Humphry ... ..	1	" <i>Holmes's System of Surgery</i> ," first edition, vol. v., page 78.
13.	Bryant ... ..	1	<i>Guy's Hospital Reports</i> , 1868, vol. xiii.
14.	Le Dentu ... ..	2	" <i>Anomalies de Testicule</i> ," Paris, 1869; quotes one by Ricord.
15.	James Adams	1	<i>Lancet</i> , vol. i. 1871, page 710.
16.	Owen ... ..	1	<i>Lancet</i> , vol. i. 1877, page 878.
17.	Wagstaffe ...	1	<i>Lancet</i> , vol. ii. 1878, page 42.
18.	Annandale ...	1	<i>British Med. Jour.</i> , vol. i. 1879, page 7.
19.	Marshall ...	1	<i>Univ. Coll. Hospital Reports</i> , 1882.
20.	Baudry ... ..	1	<i>Progrès Médical</i> , August 5, 1882.

\* In two brothers.





# PERINEPHRITIC ABSCESS—CAUSE DOUBTFUL— ANTISEPTIC EXPLORATION—GREAT RELIEF.

(Under the care of Mr. HEATH.)

[For the notes of this case we are indebted to Mr. V. HORSLEY, B.S.,  
Surgical Registrar.]

HANNAH P. was admitted into University College Hospital under Mr. Heath on April 25, 1882.

*Family History.*—She is a married woman, and has had seven children, three of whom died in infancy; the others are healthy. Her father is living, aged sixty-six, and healthy. Her mother died, aged sixty-four, insane. She has lost two brothers—one of "consumption"; one died (insane) from the effects of throwing himself out of a window.

*Past History.*—Patient has always had good health until her marriage. Since then she has experienced pains of a twisting character across the lower part of the back. These have generally been worse at the menstrual periods. Since the formation of the abscess the nature of the pains has changed, and are now of a heavy, aching character. They commenced about six months ago, and occupied the place of the present swelling, which was perceived for the first time about fourteen days ago. They are now so very intense that she is unable to keep up. Since its first appearance the swelling has rapidly increased. About fifteen months ago she noticed her urine to be thick, and that it deposited a yellowish-white sediment. This continued for about six months. She has never experienced pain either before, during, or after micturition. Bowels have always been rather confined. Her menstrual periods have been regular. Her pains have not been increased by movement.

*Present State.*—Patient is thin and very yellow. On the back of the right lumbar region there is a large swelling, over which the skin is hot, red, and tender. The surface is rendered irregular by rounded projections, where the skin is thinner than elsewhere. This swelling extends from the last rib, to well below the iliac crest, and from the spine to the mid-line of the side. There is distinct fluctuation. The liver is found to be far below the ribs, reaching almost to the umbilicus; its edge can be seen moving plainly beneath the thin abdominal wall; it is sharp and thin. The surface of the liver is smooth. The spleen comes one inch below the ribs; it is smooth, and not tender. In the situation of the lower end of the right kidney, and almost concealed by the liver-edge in inspiration, but uncovered in expiration, a body can be felt, having much the shape of the lower end of the kidney. It is smooth, very firm, taking no impression from the finger; very slightly tender, and fixed. There is no tenderness or fulness in the right iliac fossa. The abdomen is normal in appearance, and there is no tenderness about it.

April 26.—The House-Surgeon aspirated the abscess, removing twenty ounces of a thick purulent fluid.

28th.—Patient being under ether, Mr. Heath made an incision over the abscess in the colotomy position. A large quantity of thick purulent fluid escaped. On inserting the finger into the wound, and directing it upwards and backwards, he felt an aperture, about the size of his finger-end, leading towards the kidney. On making pressure, what appeared to be calculi in the kidney were felt to grate. The incision was made under Listerian precautions, and antiseptic dressings were subsequently applied.

29th.—Temperature 97.6° Fahr. Patient felt relieved. Dressings, being soaked through, were changed.

May 1.—Urine was found to contain carbolic acid, also a yellowish sediment, amounting to about one-third. Forty-four ounces were passed in the twenty-four hours. No albumen; specific gravity 1025. Besides pus-cells, there were a few epithelium cells, but no crystals.

2nd.—The redness over the lumbar region was almost gone.

9th.—Urine less charged with carbolic acid this morning. On passing the finger into the wound, the opening towards the kidney could not be detected.

June 1.—Wound has continued to discharge, but the amount has lessened, and it has remained quite sweet.

3rd.—Listerian dressings were discontinued.

*Remarks.*—This case appeared to be one of perinephritic abscess, the origin of which still remains doubtful. The signs of abscess being so unequivocal, it was obviously necessary to lay the sac open and examine the source of suppuration. Calculi were thought to be felt in the kidney,

and it is possible that the whole abscess may have commenced around the posterior surface of the inflamed pelvis. The improvement in the condition of the patient was so great as not to warrant immediate further surgical interference.

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THE MEDICAL TIMES is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

# Medical Times and Gazette.

SATURDAY, DECEMBER 1, 1883.

## THE HOMES OF OUT-PATIENTS.

THE condition of the dwellings of the extreme poor of London has been recently receiving a great deal of attention in the most varied quarters; and, however much difference of opinion there may be, politically or theologically, between various writers on this subject, there is, happily, no difference whatever as to the main points—the existence of the evil, and the need of a remedy. It seems almost ungracious to say that to the medical profession the subject is by no means new. Every medical man, probably, until disheartened by the difficulty of the task, has tried to cleanse these Augean stables. Every medical student in his third year has had practical experience of the painful truth of the pictures drawn by sensational writers on the subject. Medical opinion on the question is apt, perhaps, to be too one-sided and materialistic; and as abstainers trace every conceivable ill affecting the lowest orders to the results of indulgence in alcohol, so most medical men in the present age of physiology and sanitary science are tempted to look to faulty hygienic conditions as a sufficient cause for all the moral and physical shortcomings of the poor. However that may be, the medical view of the subject is not one that can be safely neglected. Medical men, moreover, have a further claim to speak on the matter. These dwellings are the homes of our out-patients, and thus the subject becomes one of very practical interest to us. With all the agitation in the daily press, with the meetings in Southwark and in Exeter Hall, with energetic addresses delivered with episcopal authority or nonconformist zeal, it is but natural that medical men should rouse themselves hopefully. The time seems reached when we should say what we know of truths which many of the laity would prefer to consider merely



sensational padding for the dull season; that we should point out the directions in which work should be carried on, and that we should aid this work by giving our word of warning against the danger of *trop de zèle*. Medical men working in the neighbourhoods from which most striking instances have been drawn must feel that they have a right to be heard. They have performed post-mortems in these homes; they have had long talks while waiting wearily for the birth of new heirs to human sorrows; they have seen the difficulties attending the lying-in room which serves as sleeping apartment of the whole family, and storehouse for whatever articles the bread-winner deals in; and they must have been perplexed by restless questions with regard to the future of children reared in such surroundings. Even an active philanthropist like Dr. Barnardo does not hesitate to refer to a "miserable-looking babe, whose days—happily, as it seemed to me—were numbered"; while Colonel E. C. Fitzroy, speaking of the families of young children depending on poor parents, asks, "Why should these exist?" Fortunately for us, our duty is clear, for it has never yet been questioned that it is the duty of medical science to do its best to save life even when disease may render it a weary burden. We must ever look rather to improving the conditions around him than to improving the individual off the face of the earth.

We spoke last week of the difficulty of obtaining accurate data from the out-patient room on account of the unreliable character of the statements we receive. Numberless other causes add to the lack of satisfaction attending out-patient practice, and tend to counteract possible benefits derivable from advice there given. Not the least of these is the question before us—the condition of the homes of our patients. We have to deal not only with disease, but also with poverty and its results. Many require nourishment. In a children's hospital this may be given in the guise of cod-liver oil, but with adults we are often reduced to ordering tonics for patients who have no means of meeting the appetites raised by them. Let us remember, however, that among the necessities of life food is but one item. To aid recovery from any severe illness a due attention to sanitary laws is essential. It is a truism now to urge that sanitary laws cannot be broken with impunity; that though the results of their violation may not be immediately seen, they tell none the less on the later life of the individual. These facts, however, are unfortunately not yet grasped by the poor themselves; the word "sanitary" is not in their vocabulary, and, until this is remedied, little can be done. We may take it for granted that overcrowding is at the root of the whole matter. This is the truth dwelt upon by the Marquis of Salisbury, and supported by the evidence of the great increase of rents—an increase bringing the rent, in many cases, to a third or half the total income. The question to be solved is, How is this overcrowding to be dealt with? It is not for us to decide where the Leader of the Opposition and the President of the Board of Trade are yet uncertain, and Sir Charles Dilke investigates and holds his peace. This, however, we may say with confidence: that the greatest care must be exercised not to increase the evil in efforts at improvement. Dr. Bridges, of the Local Government Board, has done good service in drawing attention to the danger likely to arise from the unskilled erection of workmen's buildings. Air and light are requirements for health, and, from the particulars given in his letter to the *Pall-mall Gazette*, it is obvious that these are too often overlooked, the houses being commonly built too high and too close together. Workmen's buildings, however, must fail to reach the lowest orders. A fair amount of decency of life is required in them, and the restrictions enforced necessarily exclude the very poorest and the criminal classes who at present

inhabit "Horrible London" with the working men. Their condition is not altogether hopeless. It would be improved by more breathing room being left by the removal of the bees to suitable hives; and perhaps it is not too Utopian to imagine that, on Darwinian principles, the drones might change their nature, and in future ages qualify for admission to sanitary dwellings.

#### THE USE OF THE WORTHLESS.

THE controversy which has arisen out of a recently published research has brought to light some strange and unlooked-for opinions, the exponents of which appear to be innocently indifferent to conditions of time and space. Longitude and chronology are to these writers evidently matters of no moment, for, to judge from their utterances, one would think that they had succeeded in putting back the dial a couple of centuries, or with a twirl of their pen had spirited us all away to the meridian of Berlin. The freedom of the Press and the equality of man are clearly, in their view, mere catchwords of emotional politicians, and not rights which have won recognition through struggle and suffering. This country in the sixteenth century, and Russia in the nineteenth, are indubitably better suited to their tone of mind than Victorian England. For such writers the Reformation and the French Revolution have happened in vain; the Areopagitica is a mere *tour de force*; John Wilkes was a fool to go to prison; and every Radical from Luther to Stuart Mill has spoken and written mere words. It is strange, it is almost laughable, to see a medical journal, of all journals in the world, refurbishing the old weapons of threat and abuse, because another journal happens, in the course of its duty, to utter honest criticism which displeases it. This is a small matter, and may be briefly dismissed with an apology for having thought it worth mentioning. But the other utterance to which we take exception introduces a question of much more vital importance. We allude to Dr. De Watteville's letter on "The Uses of Hospital Patients," which appeared in the *Standard* of Saturday last. This letter is, in effect, a mere continuation of the correspondence "*in corpore vili*" recently published in that journal. It is an honest and courageous, if mistaken, expression of opinion, and, as such, demands respectful criticism. But the assumption made in the letter is one which cannot be allowed to pass unchallenged. It may be noted in passing that Dr. De Watteville contradicts himself; for if it be right and customary, as he contends, to experiment on hospital patients, then the accusation made against a certain practitioner in a previous letter, signed "M.D.," cannot consistently be held by Dr. De Watteville to be a "serious charge." That, however, is a minor point. The real fault we find with the letter is, that Dr. De Watteville claims in it the right to use hospital patients for other purposes than those tending to their own direct benefit, without their free and full consent, and merely at the discretion of the doctors. Such a claim is an anachronism. Indeed, the progress of modern thought has robbed the dictum "*Fiat experimentum in corpore vili*" of all meaning. Except in the case of those who have forfeited their rights by crime, no enlightened thinker can justifiably maintain that one body is more worthless than another; and it is strange to find medical men familiar with the republicanism of the post-mortem table upholding such a distinction. If it is still allowable to make experiments on the poor without their full consent, which it would not be thought equally justifiable to make on the rich, then all the political struggles of the past century have been made in vain, so far as regards any lesson which



those who make such a claim have derived from them. Their claim, in fact, is one which smacks of the dark ages.

So much for the principle of the matter. Let us now turn to the practice. A poor patient goes into hospital, and he admits by the act that he consents to become a subject of *observation* to a much larger number of medical men than if he had been treated at home. But he does not admit, nor is it generally claimed by the medical profession, that his *treatment* may, if his doctor wills it, be different or more experimental than would have been the case if he had been a rich man in his own bed. All treatment, whether of the rich or of the poor, is, logically speaking, an experiment, for it is an interference with the conditions which would otherwise obtain. But the whole course of the late controversy proves what we have contended from the first—that it is not thought right even by the medical conscience to make any experiment on any man without his consent, which shall not be or promise to be for his individual benefit. Even the right of *observation* on hospital patients has its limits, and the conscience of medical men in England unhesitatingly condemns any examination of patients in a critical or moribund condition which is not meant for their immediate benefit; and it would, we are sure, be revolted by a scientific procedure which we have seen practised on the Continent, and which is merely the logical outcome of such a claim as Dr. De Watteville's—viz., the excision of a piece of diseased skin from a living patient for the purposes of histological research. Too much stress cannot be laid on the fact that the main use of hospital patients is one of observation, and not of experiment. The close and multiplied scrutiny to which they are subjected, the registration of their symptoms, and the careful record kept of the effects of their treatment, while working for the immediate benefit of the individual patient, are indispensable as a means of educating the future practitioner. But while fully admitting the benefits to be derived from such extended observation, we cannot for a moment admit that the responsibility of the hospital physician or surgeon towards his poorer patients is any less sacred than that towards his paying patients.

We had already answered Dr. De Watteville's argument by anticipation in our leading article of the 17th ult., but it appears necessary to repeat the contention that we then laid down—viz., "that it is not right for one man, from any motive whatever, to cause another to suffer without his consent for the good of the greatest number." Dr. De Watteville claims that it is a plain law of nature that the few should suffer for the many, but happily it is one which is overridden by a higher and later gift of nature—that sympathy with one's fellows which softens the crude struggle of life, and aims, as far as it can, at abolishing vicarious suffering. Moreover, according to Dr. De Watteville's reading of the law, it is the many—*hoi polloi*—who are to be made to suffer for the few. Such a claim, we are sure, is entirely out of harmony with modern thought, whether medical or lay, and few will be found to support it in theory. That it is widely asserted in practice, we do not for a moment believe. We are convinced that an overwhelming majority of hospital physicians and surgeons feel their responsibilities to their poor patients quite as acutely as they feel them in the case of their rich patients. That some are occasionally led into an opposite line of conduct by the love of science and of fame is quite possible, but the fact has only to be admitted in order to be condemned and, if possible, prevented. The question is—How is it to be prevented? and here we must repeat that the only guarantee against it consists in the right feeling and moral sense of the practitioner. The public has hitherto implicitly trusted that moral sense, and,

hard as are the words that are sometimes used against doctors, it has never yet been said of them—as it has often been said of lawyers, for instance—that they use their clients for their own advantage. It is, above all things, important that this confidence of the public should be maintained, and the best and only way to maintain it is by showing that the moral conscience of the profession in the matter is even more strict, if possible, than that of the public. If one wished to destroy that confidence, one could hardly find a better way than to admit such a claim as Dr. De Watteville's, or to submit to such a bridling of free and watchful criticism as certain medical organs are anxious to impose. Both are revivals of dark and dead modes of thought, which cannot live in the fresh air of modern English life.

## CHRONICLE OF THE WEEK.

AT the meeting of the Clinical Society on November 23, an interesting debate took place upon the subject of Myxœdema, in which Sir W. Gull, Dr. Ord, and other observers whose names have been associated with our knowledge of the disease, took part. A valuable communication was made by Dr. Felix Semon of a series of cases of myxœdema occurring after extirpation of the thyroid gland, by Prof. Kocher, of Berlin, who, not being acquainted with the disease as such, had described his cases as a peculiar form of cachexia; in sixteen instances of complete removal the myxœdematous changes had been observed, whilst in the cases of partial removal the results upon the general health had been satisfactory. The previous belief in the intimate connexion existing between the loss of the thyroid gland and the development of myxœdema was undoubtedly strengthened by the evidence which the discussion called forth, but it was no less evident that there are at present no facts extant by which the nature of that connexion can be determined. A paper by Dr. Thin on some cases of thickened epidermis treated by salicylic plaster was also contributed; and an unusually interesting series of living specimens were shown: a case of myxœdema, by Dr. Drewitt; hypertrophy of right leg, by Mr. Barwell; arrest of development of right side, with right facial paralysis, by Mr. Barker; arteritis progressively affecting the vessels of the right arm, by Mr. Gould; and thrombosis of vena cava, by Mr. Mansell-Moullin.

THE successful treatment of certain cases of myxœdema by means of diaphoresis, and especially when induced by jaborandi and pilocarpin, is noteworthy. The experience of different physicians with respect to the effects produced by the drug would appear to be by no means alike. The constant headache of one patient contrasts strangely with the freedom from discomfort of another, whilst in a third the action of the pilocarpin was found to manifest itself solely upon the urinary excretion. That such uncertainty should exist with respect to the action of an accepted therapeutic agent, such as pilocarpin undoubtedly is, seems in the highest degree unsatisfactory. It is greatly to be desired that the efforts of experimental therapeutists should be directed towards the determination of the exact action of those drugs which we already possess. Precise knowledge of one or two powerful agents for the production of diaphoresis would be of far greater scientific interest and practical value than that "little knowledge" of a host of drugs which occasionally, in unwary minds, may prove itself indeed a "dangerous thing."

DRS. RINGER and SAINSBURY contributed, on Tuesday last, to the Royal Medical and Chirurgical Society, some interesting observations obtained experimentally on tortoises, on the



action of digitaline and allied substances on the heart-muscle as well as on the arterioles. The spasm of the heart has long been recognised, but the condition of the arterioles under the influence of digitalis is not so well recognised. The results of the researches, while they confirm what was previously known concerning the heart, go to prove that a similar and direct action on the bloodvessels is produced. The President congratulated the author on the results, not less than on the mode in which the experiments had been carried on. Dr. Brunton thought that the "digitalis group" was far too large already, and that only such drugs should be grouped as tended to produce the same sum-total effects. He did not attach much value to the action of these substances on the voluntary muscles, because these effects varied greatly not only in different species, but also among different individuals. Dr. John Harley considered the results as dependent on the dying condition of the animal after section of its spinal column. The discussion is elsewhere fully reported.

THE Committee of the Westminster Hospital have published, not a day too soon, an ably reasoned and carefully drafted report on the much discussed paper on sodium nitrite, which will be read with satisfaction by all who have taken our view of the subject. It corroborates our contentions in every particular, and, while fully accepting Dr. Murrell's corrections, is hardly less severe on the original paper than we were ourselves. It will be said, of course, that the report is the work of the lay element of the Committee—the product of prejudice and obscurantism. The backs of the lay members of the Committee are no doubt broad enough to bear such a charge; but it may be said in anticipatory reply to the objectors—whose claim on behalf of the profession of immunity from lay criticism is as arrogant as any similar claim ever put forward by an unreasoning priesthood—that it is lay opinion that we have to reckon with. The profession cannot go a step further in scientific experiment than the tether of the public conscience will permit. That tether may be lengthened by reasonable argument, but all attempts to break it or to slip out of it will only make it tighter and shorter.

It has been said by some within the profession that the fault is not in doing experiments which the public will object to, but in publishing them. That is not a position with which any self-respecting practitioner can sympathise, nor one which the medical press can advantageously take up. Is there any profession which can be safely withdrawn from public criticism? Do we doctors sympathise, say, with clergymen who object to their doings in the confessional being made the subject of newspaper articles? It is desirable, of course, as Sir W. Jenner appears to have maintained at the College of Physicians, that comments which are calculated to damage the profession should not appear in the public press. But the best way to command such immunity from criticism is to deserve it. We have full confidence that the Censors' Board of the College of Physicians will as thoroughly confirm the line we have taken on this subject as the Committee of the Westminster Hospital have done.

WE are told that the recruiting for the Army causes present uncasiness, and we can well believe it; for, looking back on the past, we hardly remember the time when recruiting was not a cause of uneasiness. In the good old days the temptations offered to "spirited young men" failed sometimes to fill the ranks, though the barrack-room was then a home, and a pension was certain at the expiration of twenty-one years' service. But when the authorities fell

back on "short service," to accommodate the growing intelligence of the age, it was confidently expected that thousands would volunteer to serve Her Majesty. So strong was this conviction on the part of the authorities, that recruits were allowed to join their regiments as free and independent Britons, instead of being marched to the barrack-yard in the custody of a veteran recruiting-sergeant. And now this hope is falsified, and "recruiting is once more a source of uneasiness." Judging from our own experience, we should say that "hard times" are the only seasons when soldiering is in vogue. An Irish famine, great commercial distress, and strikes in the manufacturing districts, can alone be relied upon to tempt young men to serve Her Majesty in the wars. It is a curious fact that the thirst for glory inflames the brain when hunger pinches the belly. But the authorities do not look upon matters in this light. We are told "it is thought at headquarters that many who are willing to join the Army do not know the way to go about it," and, in consequence, it is contemplated to turn all the post-offices in England into recruiting offices, and "bringers" are to be selected by the postmasters, who will be instructed to way-lay likely young men, and tell them *how to go about it!* As the "bringers" will get 5s. on the approval of each recruit, they will probably be as eloquent and insinuating as the recruiting-sergeant of yore. We trust they may be.

RECRUITING is no particular business of ours, and we should not have touched upon it at all but for two letters recently published in the *Standard*, which are somewhat hard upon army doctors. We learn in the first that these gentlemen reject fine young recruits because they have bad teeth, and in the second we are informed that strong young men are sent away from the barracks because they cannot see distinctly. We cannot help suspecting that these letters are concealed warnings to too officious army medical officers. The public will naturally ask—"What have a man's teeth to do with his fighting? British soldiers are not cannibals! And, after all, what difference can it make whether a man can hit the target at a thousand yards or not? Give them the cold steel!" If the doctors should insist upon teeth being necessary to eat with, and point out that men cannot fight on empty stomachs, the public will doubtless draw attention to the modern improvements in cookery. With regard to short sight, too, the public will ask with a sneer if army doctors never heard of spectacles, and if they are so ignorant as not to know how to adjust them?

WE might be inclined to give up the case for the doctors if it were only a question of such simple matters as eyes and teeth, but there is something else to be considered. We see by the Blue-book for 1881 that there were not two, but forty, classes of causes of rejection! No doubt those whose only object it is to fill the ranks will treat with scorn the meddling interference of the army doctors in any of the forty classes of supposed disqualification. Take phthisis: there is much to be said for abolishing this. Surely a foreign climate is the best remedy for consumptive patients? Then we have "weakness of intellect." This is absurd, as the very desire to become a soldier proves the soundness of the brain! Next, we observe varix given as a disqualification. Surely a man's legs may be expected to last out short-service! We might go through the whole list, and find some plausible reason for upsetting each cause of rejection. The writer of one of the letters alluded to suggests that the standard of visual acuteness should be lowered for recruits, and that when the defect of sight is due to a simple error of refraction, and not to disease, the standard should be reduced to a minimum. We object to this piecemeal work. Have "a



committee" if you like, and let the authorities consider the question whether causes which disqualified in long-service are equally objectionable now. Make what alterations you please, but don't throw the blame on the army doctors for carrying out rigidly the regulations which now exist or which may be permitted to survive. We observe that 20,522 cripples were rejected by the doctors in 1881. Would the War Office or the public feel less uneasiness if the cripples were in the ranks? If so, by all means abolish the medical examination of recruits, and let us trust to the judgment of the "bringers" employed by the postmasters of the United Kingdom.

DR. DE WATTEVILLE, to whose letter on "The Uses of Hospital Patients" we have referred at length in another column, has found adherents to his views in an unexpected quarter. An offer has been made to the Manchester Infirmary by certain temperance advocates to contribute £1000 to the funds of the institution "for experiments as to the use of alcohol." They propose that a series of patients should be treated religiously without alcohol, and the results of their treatment compared with those obtained under the use of the drug. This proposal has wisely been declined by the Committee, for the following reasons:—"First, the conditions necessary for arriving at a trustworthy conclusion as to the value of alcohol by the proposed scheme cannot possibly be realised, and therefore any conclusion arrived at, whether in favour of or against alcohol, must lead to a disastrous practice, either by an undue extension or curtailment of the use of any drug. Secondly, alcohol in its various forms is given in this hospital as medicine, and not as an article of diet. As a medicine it is of great value in the treatment of disease, and at times essential for the saving of life. This being so, they can only consider the course suggested in the letter submitted to them as an *experiment which involves the lives of their fellow-creatures, and cannot, therefore, be countenanced.*" That is as severe a counter-check quarrelsome to, the would-be scientific investigators, and as timely a corroboration of the line we have recently taken, as need be wished for.

THE incident serves to draw attention to a certain indefiniteness which attaches to the meaning of the word "experiment." To a logician it would not be an "experiment" to leave a patient to the course of nature, and, in the words of a popular manual, "to sit by the dying man and observe the curious physiological phenomena presented"; but to the medical practitioner such an action would be an experiment very distinctly, if he saw the remotest chance of averting the fatal issue by any therapeutic expedient. As the man who first dropped a grain of wheat into the ground was the boldest of speculators, so the physician who in times still recent first left a pneumonia patient "un-blooded" was the boldest of experimenters. Against this class of experiment, however, no one can have a word to say—provided only it be conducted with caution. The error of the total-abstinence enthusiasts who have offered to subsidise the Manchester Infirmary is that they will not be satisfied with anything short of a wholesale experiment. They will say, of course, that they are so certain of the results that there is nothing experimental in their proposal. We, with weaker faith, are less certain about it.

THE following are the most important of the contributions to the leading French medical papers for the current week, viz.:—In the *Archives de Neurologie*, on Bony and Articular Lesions of the Foot in Tabes Dorsalis, by MM. Charcot and Feré; on the Development of Speech in Children, by M. Sikasky; and on Bilateral Hallucinations of

Different Character, according to the Side affected, by M. Magnan. In the *Progrès Medical*, M. Troisier writes on Subcutaneous Rheumatic Nodules; M. J. Simon has a lecture on the use of Mineral Waters in Diseases of the Nervous System; M. Dubois writes on the Influence of Alcohol on the Physiological Action of Chloroform; a brief summary is also given of the opening addresses of MM. Hardy, Jaccoud, Laboulbène, and Magnan. The *Gazette Hebdomadaire* contains an important article based on M. Fauvel's address on the Prophylaxis of Cholera. In the *Gazette Médicale de Paris*, M. Raymond gives a case of Aphasia where the third left frontal convolution was healthy, but the subjacent white matter was affected. The *Gazette des Hôpitaux* contains a case of Chronic Icterus which had lasted nineteen months.

THE *Centralblatt für Klinische Medizin* contains an original paper by Dr. Menche on Kairin and its use in Acute Rheumatism: abstracts of papers—by Cornil and Babes, on Contagious Peripneumonia; by Feletti, on the Causes of the Percussion-Note in the Thorax; by Bettelheim, on the production of the Second Sound in the Carotid; by Schech, on the Etiology of Laryngeal Paralysis. In the *Centralblatt für die Medicinischen Wissenschaften*, a short paper by Dr. Andeer on Resorcin-Blue is followed by abstracts of several papers of interest—Dr. Strasser, on the Functional Adaptation of Voluntary Muscles; G. von Liebig, on the Production of Pulse-Waves; Pott, on the Respiration of Chicken-Embryos; Lemonnier, on Psoriasis Linguae; Lewin, on the Function of the Hypoglossal Nerve; Sahli, on Spinal Localisation. In the *Centralblatt für Chirurgie*, Dr. Landerer discusses the Treatment of Strumous Disease with Arsenic. Abstracts of papers—by Bienstock, on Bacteria in Fæces; by Brigidi and Bianchi, on Rabies; by Bergmann and Vigessi, respectively, on Transfusion; and by Wolff, on Trophic Disturbance in Primary Joint Affections—are of interest. The *Centralblatt für Gynäkologie* contains an original paper by Dr. Zeiss on Pyo- and Hæmato-Salpinx. Abstracts of papers—by Ziehl (of Heidelberg), on Abdominal Fistula after Tubercular Peritonitis; by Nunez (Paris), on Malformations of the Female Urethra; by Rovillain (Amiens), on Malformations of Anus and Rectum, and their Treatment; by Bar (Paris), on the Production of Hydramnion—may also be noted. In the *Berliner Klinische Wochenschrift* appear papers on the Arrest of Arterial Hæmorrhage by Antiseptic Tampons, by Prof. E. Küster; on the Staining of Tubercle-Bacilli in Sputa, by Dr. Petri; and Dr. Semon's paper on Laryngeal Paralysis is continued. The *Wiener Medicinische Wochenschrift* publishes a critical article on a paper by Prof. Jacobson, of Königsberg, on the subject of Glaucoma. Dr. Herz's paper on Modern Medication of Diphtheria is continued, and a case of Suture of the Ulnar Nerve is contributed by Dr. Zesas.

#### SIR WILLIAM MAC CORMAC IN NEW YORK.

THE weekly medical publications of New York and Philadelphia, of November 3, print at length an address delivered at the Bellevue Hospital Medical College, on October 3, by Sir William Mac Cormac. The address was in response to a special invitation, and the subject, "Gunshot Wounds," was one to which the personal experiences of the speaker lent a special interest, and secured without difficulty the intelligent appreciation of the audience. The lecture itself is both interesting and instructive, the subject being treated throughout with a masterly realism which is secured by an actual familiarity with the conditions described. Sir William's remarks on resections in military surgery—advocating, as he does, secondary, in preference to primary,



operations of this nature—come before us with the impress of comparative novelty; they appear, however, to be both cogent and well considered. The sound advice as to caution in probing gunshot wounds, where over-zeal or exaggerated surgical curiosity has too often been the agent of septic infection to the patient, will be approved by all. Numerous examples are adduced in which bullets have become life-long and harmless tenants of lung, brain, bone, or even joint-cavities. In the treatment of gunshot wounds of the abdomen, Sir William endorses the advice of the late Dr. Marion Sims, his colleague and chief on the Anglo-American Ambulance staff. The rule will no doubt be established that soldiers so suffering should not be “simply left to die,” but that an attempt should be made (by abdominal section) to search for, excise, suture, or appropriately treat the injured intestine. In this, as in all other operations of military surgery, the importance of antiseptic precautions and dressings was eloquently described and insisted on. The whole address was at once a valuable contribution to the science of military and true conservative surgery, and a graceful conclusion to a visit in which the “lavish hospitality and great kindnesses” received are modestly attributed, not to any personal merit of the recipient, but to the goodwill “of the highly cultured portion of the American people to the old country.”

#### THE “MEDICO-CHIRURGICAL TRANSACTIONS.”

THE new volume of *Transactions of the Royal Medical and Chirurgical Society* quite maintains the high character of its predecessors. It may even be said that in general interest the papers contained in it are above the average; and, if read in connexion with the discussions to which they gave rise (and which are now published in the Society's *Proceedings*), additional interest, as well as instruction, is imparted. Nevertheless we are sorry to note that many communications which were read before the Society, and gave rise to interesting discussions, are conspicuous by their absence from the present volume, for of thirty-three communications received, only twenty-one are published in detail. Among the innocents thus slaughtered we note papers the publication of which would in no way have disgraced even the present volume of *Transactions*; and more especially so as the Council “deems it proper to state that the Society does not hold itself in any way responsible for the statements set forth.” We venture to specially mention three of the twelve absentee papers, and to express a regret that they do not form part of the present volume—Dr. Neale's paper on the Etiology of Scurvy; Mr. Thomas's Researches into the Life-History of the Liver-Fluke; and, finally, Dr. Rawdon's case of Nephrectomy for Rupture of the Kidney. Among the most noteworthy of the papers which do appear may be mentioned those on Resection of Portions of Intestine; on Endemic Hæmaturia; on Scurvy-Rickets; and on Purulent Pericarditis treated with Free Incision and Drainage. We notice, too, rather more than the average number of errors and mistakes of a more or less clerical nature, and recommend more careful editing in future.

#### SUTURE OF THE PATELLA.

THE Société de Chirurgie of Paris was engaged last week in a discussion on suture of the patella. M. Verneuil showed a patella which he had removed from the body of a patient who had recently died in the Hôpital de la Pitié. The man was a tubercular subject, and while in the hospital had fallen and sustained a comminuted fracture of his patella. He was at once placed in a *gouttière* splint, and a blister was applied. After a few days this splint was re-

moved, and a silicate (fixative) bandage substituted. In less than three weeks there was perfect and complete osseous union, as the post-mortem examination showed. Here, argued M. Verneuil, was an instance of osseous union obtained without suture of the fragments, and even without aspiration of the joint. He further remarked that during the past twenty years he had never seen a case in which aspiration under these circumstances was indicated. In the discussion which followed, M. Berger emphasised the difference between these fractures and transverse ones. In the former there was seldom much separation of the fragments; they were also very much less common, and there was not one single case in the Dupuytren Museum. He rejects suture of the fragments in primary cases, and only thinks it justifiable in those old cases where progression is impossible. In reply to M. Nicaise, the author of the paper stated that there was always sanguineous exudation into the knee-joint in patellar fractures. The Surgical Section of the Academy of Medicine, Ireland, has also recently discussed the treatment of fractured patella. The speakers were by no means unanimous as to whether bony union was a *sine quâ non* of success, nor did they agree as to the relative value of the various forms of apparatus that have been devised for bringing the pieces of bone into apposition; but they were nearly unanimous in regarding Lister's method of opening the joint and suturing the bones as too heroic in cases of recent fracture, and as only safe and justifiable in the hands of one thoroughly versed in the Listerian method.

#### MILK ADULTERATION.

A LETTER appeared in the *Times* last week from Mr. Wigner, who is President of the Society of Public Analysts, upon the subject of milk adulteration, which again brings before the public the fact that the milk which is supplied to this metropolis is largely diluted with water. The milk as it arrived in London from fifty different dairies was tested, and every sample was found to be good; “not a watered or skimmed sample was found, but the average of the whole was 7 per cent. better than the limit” which the public analysts have to work to. From 300 samples of milk bought at the same time from retail dealers, some from every district of London, only ninety-seven samples passed the limit, while “203 samples were watered, or skimmed, or both.” And this adulteration was also very considerable in degree; it varied between 3 and 61 per cent.: forty-five contained between 20 and 30 per cent. of water, and forty-five contained over 30 per cent. Moreover, fifty-seven were skimmed as well as watered; and twenty-one were skimmed, but not watered. Mr. Wigner refers to the monetary loss to the consumers, and it is to this point of view that the public is most likely to be attracted. He computes this loss at £356,000 annually, and he is probably well within the mark in doing so. But there is a much more serious side to the question than that of pecuniary loss, for this wholesale adulteration no doubt has a serious influence upon the health of the community. In the first place, it is one of the chief causes why the children of the poor are often ill-nourished and rickety, so that they either succumb to the common illnesses of childhood, or grow up deformed or permanently debilitated. And, in the second place, the adulteration of milk with impure water no doubt leads to the dissemination of disease—notably typhoid and scarlet fevers. As a remedy, Mr. Wigner advises that a proper standard limit of quality should be insisted upon; and we would add, that unless this is done by the properly constituted authorities, reform will be either very slow or will not take place at all. Those who suffer most are unable or unwilling to protect themselves against this, the most scandalous of adulterations.



**CELLULOID COLLARS.**

THE riding of a "cycle" is productive of cutaneous transudation, and this condition is inimical to starch. It has been endeavoured to supply the want thus revealed, and to provide a snowy yet rigid collar to the machine-rider by the introduction and advertisement of the so-called "celluloid" collars and cuffs. It has fallen to our lot to note how ill adapted is this material for the purpose for which it is recommended. The celluloid collar, when warm, clings closely, with a firm if slightly elastic pressure to the throat of the wearer, producing in all cases a redness of the subjacent skin and an unpleasant sense of fulness in the head. In one instance a zone of eczematous eruption, and in another severe attacks of congestive headache, causing utter prostration, and traced at length to their true cause, resulted from the use of these collars. In point of fact the venous circulation from head to body is seriously interfered with during any active exercise by such a constriction, and we would strongly advise our readers not to be seduced, by any love of neatness or decorum, to run the risk.

**THE PARIS WEEKLY RETURN.**

THE number of deaths for the forty-sixth week of 1883, terminating November 13, was 964 (530 males and 434 females), and of these there were from typhoid fever 38, small-pox 3, measles 1, scarlatina none, pertussis 6, diphtheria and croup 43, erysipelas 5, and puerperal infection 1. There were also 40 deaths from tubercular and acute meningitis, 177 from phthisis, 25 from acute bronchitis, 65 from pneumonia, 77 from infantile athrepsia (24 of the infants having been wholly or partially suckled), and 30 violent deaths (25 males and 5 females). The mortality of the week remains low and nearly stationary. The figures of small-pox, measles, and pertussis are very low, while *no death from scarlatina has occurred in Paris during four weeks*. Deaths from typhoid fever have increased by 8, and from diphtheria by 9. During the week there were 1258 births, viz., 646 males (478 legitimate and 168 illegitimate) and 612 females (441 legitimate and 171 illegitimate): 103 infants were either born dead or died within twenty-four hours, viz., 62 males (53 legitimate and 9 illegitimate) and 41 females (26 legitimate and 15 illegitimate).

**KAIRIN AS AN ANTIPYRETIC.**

THAT there is still room for a good antipyretic, few would probably be inclined to dispute, and it is not surprising to find that kairin, introduced about a year since in Germany, has lately been put upon its trial in Boston by Drs. Shattuck and F. W. Draper, the former of whom gave it in six cases of typhoid fever, and the latter in two cases. Their cases would seem to show that, when administered in a manner to be alluded to, kairin has a definite and tolerably speedy antipyretic action, and is a fairly safe drug. In some patients it induced a certain degree of collapse, which was overcome by stimulants. This may possibly have been due, in some degree, to individual susceptibility; its effect seemed to pass off speedily, the temperature regaining its former height after a short cessation of the drug. The plan of administration adopted by both the above-mentioned physicians was to give an hourly dose of seven grains and a half, commencing in the evening, and continuing it for four, six, eight, or even ten hours consecutively, according to the requirements of the case. There was usually free perspiration after the administration. During the rise of temperature that succeeded the fall there was often a rigor. The symptoms of an overdose were feeble pulse, pinched countenance, and cyanosis of the lips and extremities. The drug was rapidly eliminated, the urine

becoming of a dark-green colour half an hour after the first dose.

**THE MICROCOCCUS OF CROUPOUS PNEUMONIA.**

SOME observations upon the micrococcus of croupous pneumonia have lately been presented to the Physiological Society of Berlin by Mr. Carl Friedländer and Dr. Frobenius, of that city. The micro-organism is characterised and distinguished by the presence of a peculiar mucous capsule, which it retains when re-cultivated in gelatine. Inoculation with this "cultivated" material was made into the lung-tissue of rabbits, but without effect. Similar injections into dogs and, with still more constancy, into mice produced all the phenomena of genuine croupous lobar pneumonia. In a few cases, inhalations of the material in pulverised form were equally successful.

**THE WEATHER AND THE POOR IN GLASGOW.**

OUR Glasgow correspondent writes:—"The severely cold and foggy weather which has set in with the present month has increased the mortality of the city, and, unless a change takes place soon, we are sure to see the death-rate go up further. The several dispensaries are already besieged by vast numbers of applicants, many of whom, however, are quite able, but unwilling, to pay for either advice or medicine; and this tendency seems to be more common in Glasgow than elsewhere. We have no desire to close the hand of charity, or to thrust it aside, but it must be said that many of the charities, so-called, are started by a few energetic individuals who have plenty of time at their disposal, which they apply to the collecting of funds, in order to vie with other institutions already in existence. The result is, there is always a cry for funds for generally hard-up but well-intentioned institutions. At present, the general tendency is certainly downwards; in fact, the populace are taught the way to become paupers—which, however, we are told is not pauperism, but only a right which they are entitled to exact. At a recent parochial election, one of the candidates (a medical man) promised, if returned, to furnish the names of individuals who were in receipt of parochial aid and, at the same time, earning good wages. When such things are allowed to go on unchecked, it may safely be inferred that that community is in a very unsatisfactory condition. For a considerable time past the infirmaries have been unable to supply applicants with beds. They overcome the difficulty by writing to applicants in rotation when they can be admitted, those before them being sent to the convalescent homes. The competition is keen—the desire for *éclat* great. While waiting for admission, attendance and medicine are supplied by other charities, and in many cases nurses are sent daily to wait upon the sick. Truly, the lines of the working class are fallen in pleasant places—their bread is certain and their water pure."

**THE THERAPEUTICS OF ADDER'S POISON.**

DR. RICHARD NEALE writes to us:—"In your paper of last week, page 606, the value of adder's poison in tetanus is noted as novel. A glance at the 'Medical Digest' (Section 526:3) will show that, in 1874, the value of inoculating the venom of the adder was apparently established by several experiments and observations on cases of hydrophobia—a disease very nearly allied to tetanus; and, at Section 1516:4, a paper by a nephew of the illustrious Baron Humboldt is noted, in which the inoculation of adder's poison, after it had been attenuated by passing it through putrid liver, was found to be a certain prophylactic against yellow fever. Out of 1438 persons so inoculated only seven took the fever, and these recovered."



**PILLAGING LECTURES.**

THE American medical journals contain an account of the result of an appeal to the Philadelphia Court of Common Pleas by a Dr. Samuel Miller in order to obtain a dissolution of an injunction which had been obtained by Profs. Hayes, Agnew, and Penrose, restraining him from selling a work entitled an "Epitome of Medicine, Surgery, and Midwifery." The complainants declared that this work was entirely made up of their lectures, Miller only contributing the summary of them and the errors to be found in the book. They never authorised the publication, and their interests were damaged by it. Miller did not deny the allegation, but maintained that, having been a student at the university in which these lectures were delivered, and never having received notice that the lecturers reserved any property in them, he had a full right to the use of what was, in fact, a common property of the students who were present. Counsel for the Professors replied that a man had an absolute right of property in the productions of his own brain; and that Miller had no right in law or equity to publish a book purporting to be written by them, and to enjoy all the profits of the pretence, to the prejudice of the gentlemen whose names were used. The Court concurred in this view, and refused to dissolve the injunction.

**CALOMEL IN ENTERIC FEVER.**

AT the first meeting of the Medical Section of the Irish Academy of Medicine, Dr. J. W. Moore read the notes of a case of typhoid fever in which, on three occasions at intervals of forty-eight hours, he administered ten-grain doses of calomel. In the discussion which followed, this mode of treatment did not by any means meet with unqualified approval. The patient seems to have made a good recovery, but there is no mention of the period of the disease when the calomel was given. Notwithstanding its alleged powers as a germ-killer, we cannot regard calomel as otherwise than a dangerous remedy to use in enteric fever after the second week.

WE regret to learn the death of M. Georges Homolle, at Paris, on November 24. He was a physician of great promise.

THE next Thursday evening lecture at the Parkes Museum will be given by Dr. G. V. Poore on "Coffee and Tea." The chair will be taken, most appropriately, by Sir Henry Thompson.

THE Royal College of Physicians has instituted a special annual examination on hygiene. The certificate to be awarded will be entitled "Certificate in Hygiene of the Royal College of Physicians of London."

PROF. EILHARD SCHULZE, of Gratz, has accepted the call as Professor of Zoology in the Berlin University, in succession to the late Prof. Peters. He will lecture on General Zoology, including Comparative Anatomy, which has been removed from the Medical to the Philosophical Faculty.

MM. CHAMBRELENT AND MACSSOUS have announced, in a report to the Paris Academy of Sciences, that they have at length succeeded in discovering, in the milk of cows affected with inflammation of the spleen, the bacillus of that disease. They have further succeeded in their experiments in the reproduction of this micro-organism and in inoculating animals with it.

A PHOTOGRAPHIC studio has now been attached to most of the French hospitals, for photographing the sick persons at different times. The rapid dry-plate process is employed. An electrically operated camera, devised by Prof. Charcot, of the Salpêtrière, is very useful in taking, in rapid succession, a series of views.

THE Broca Prize of 1500 fr., founded by the widow of the late Prof. Broca, for the best memoir on any question in human or comparative anatomy or physiology having a bearing on anthropological science, will be adjudged for the first time by the Anthropological Society of Paris in April, 1884. All memoirs must be sent in by the end of the month.

THE interment of the remains of the late Dr. Hilton Fagge took place on Saturday, November 24, at Norwood Cemetery. The funeral arrangements throughout were of a strictly private character, but the attendance of a great concourse of former friends, colleagues, and pupils bore silent but impressive testimony to the affection and respect in which the deceased physician was so universally held.

ON Saturday last, M. Waldeck Rousseau, the French Minister of the Interior, paid a lengthy visit to the hospital for British subjects, founded by Sir Richard Wallace, at Levallois-Perret. Drs. Herbert Rocolaff and Hogg received the Minister, who made a thorough inspection of the establishment, and specially expressed his admiration at the way in which space, ventilation, and light had been provided for the inmates.

THE chair of Internal Pathology at Paris having been vacated by Prof. Jaccoud's transference to the chair of Clinical Medicine, rendered vacant by the death of Prof. Lasègue, the Paris Faculty of Medicine has sent in three names to the Minister of Public Instruction in the following order, viz., MM. Damaschino, Dieulafoy, and Grancher. M. Pajot, the Professor of Midwifery, has been appointed to the chair of Clinical Midwifery, rendered vacant by the death of Prof. Depaul.

DR. ROCHARD, Medical Director of the French Marine, who some weeks since received at the hands of a lunatic a gunshot wound of the lung, which for some time caused grave apprehensions, has since made an uninterrupted recovery, so that he was enabled at the last meeting of the Académie de Médecine to thank his colleagues personally for the great interest they had taken in his progress, and to inform them that he had so completely recovered that "all that remained to him of this adventure was a small piece of lead in the right lung, and great gratitude in his heart."

IN the action brought by the President of the Royal College of Surgeons in Ireland against the Government, which came on for hearing in the Common Pleas Division of the High Court of Judicature in Ireland on Wednesday and Thursday, November 21 and 22, the Government unexpectedly surrendered at discretion, and offered no defence. When the further hearing of the case was resumed on Thursday morning, the Attorney-General for Ireland announced that the Government were prepared to consent to take a verdict for the full amount of Mr. Wheeler's claim. Mr. Justice Harrison said he was perfectly sure that there was now at the head of the Irish Executive a nobleman who would be only too happy to do what was right. A verdict was then taken for the petitioner for the sum mentioned (£1147 18s.), with costs.



## THE SODIUM NITRITE RESEARCH.

WE have received the following from the Secretary of the Westminster Hospital, with a request for its publication:—

"The House-Committee, having appointed a sub-committee to consider a paper 'On Nitrite of Sodium as a Toxic Agent,' by S. Ringer, M.D., and W. Murrell, M.D., which was published in the *Lancet* of November 3, together with the correspondence and the articles which have subsequently appeared in the newspapers in relation thereto, the sub-committee beg to report as follows:—

"1. They have carefully considered the paper, the correspondence, and the articles in question, and have received such further information from Dr. Murrell as they required.

"2. They are of opinion that the paper, which, it is only fair to say, had not received Dr. Murrell's final revision, is open to serious objections on the grounds of want of chronological order, precision, and gravity of style. In the last particular, they cannot at all excuse its deficiencies—deficiencies of which Dr. Murrell himself is now sufficiently aware; but they think their effect is lessened when the history of the experiments with the drug is clearly given, in proper order and connexion.

"3. They find on examination that Dr. Murrell's attention was first called to the use of nitrite of sodium in epilepsy and certain diseases of the chest by a statement made by Dr. Law, in the *Practitioner*, that he had successfully employed it in twenty-grain doses. The whole of the cases treated by Dr. Murrell more than twelve months ago, and prior to his appointment in April last as Assistant-Physician to Westminster Hospital, were expressly selected by him from a very large number of out-patients at another hospital with which he is connected, and were all of them suffering from diseases for which this drug and other allied drugs would be suitable.

"There is no ground whatever for supposing that any patient was treated by way of simple experiment, without reference to the presence of specific disease, and without *bonâ fide* belief that the treatment would be beneficial to the individual patient.

"With commendable caution Dr. Murrell began by giving his patients only half the dose prescribed by Dr. Law, and had he then known what Dr. Law seems to have discovered afterwards, that the drug used by him was not of a pure quality, no doubt he would have still further diminished the dose, as indeed the symptoms which he observed in the first series of patients for whom he prescribed immediately led him to do.

"The experiments on lower animals, which conclusively revealed the toxic properties of the drug, followed, and did not precede, as one would gather from the paper, its administration to human subjects, and were made in order to elucidate the unexpected symptoms.

"The sub-committee have been assured that none of the patients suffered any ill effects from the doses actually taken, while many of them received ultimate benefit and willingly continued under Dr. Murrell's care until they ceased to be out-patients. This it is important to notice, as a proof that the alarm expressed by the patients in describing the effects of the medicine upon them was not so serious as the terms employed by them and quoted by Dr. Murrell would seem to indicate.

"It is further to be observed that 'the literature on the subject,' to which reference is made in the paper, is either contemporary with Dr. Murrell's investigations or of a later date.

"4. The sub-committee, after careful consideration of these facts, see no reason why the House-Committee should withdraw from Dr. Murrell their confidence in his ability and humanity, and they trust that the unfortunate manner in which the paper was put together will be forgotten, while the value of his experiences will remain. In this connexion the sub-committee would call attention to the fact that in consequence of this experience the 'official' dose of nitrite of sodium, hitherto appearing in the standard textbooks of therapeutics as twenty grains, has since been reduced to two grains, and a permanent source of danger has thus been averted.

"5. The sub-committee, while arriving at the foregoing conclusion, are far from agreeing with the view of those

who would ascribe to ignorance or prejudice the public attention directed towards Dr. Murrell's paper, and the adverse comments which it excited. They think, on the contrary, that it was a natural result of its publication in the *Lancet*, and was due to the terms employed in describing the experiences and the conditions under which they were obtained. Nor do they think the medical profession, and still less the governing body of a hospital depending upon the good opinion of the public at large for its support, would be disposed lightly to disregard such opinion, or otherwise alienate the goodwill and confidence at present reposed in them.

"6. The sub-committee recommend that a copy of this report be sent to the *Lancet* and other medical journals for publication, so that the public may be aware of the strict investigation instituted by the House-Committee. They also recommend that regulations be strictly enforced, that, in respect to the treatment of out-patients, who of necessity cannot be under constant clinical observation, no remedial agent the properties and effects of which are not fully ascertained shall be administered by the medical officers in charge.

"RUTHERFORD ALCOCK (Chairman).

OCTAVIUS STURGES, M.D.	C. ALFRED JONES.
GEORGE COWELL, F.R.C.S.	J. TROUTBECK, D.D.
A. DUPRÉ, Ph.D., F.R.S.	FRA. WHITAKER.
G. HELMORE.	LEWIS WINCKWORTH.

"Westminster Hospital, November 24, 1883."

## THE DISTRIBUTION OF TYPHUS IN LIVERPOOL.

At a well-attended meeting of the Liverpool Medical Society on November 22, a very able and important paper was read on this subject by Dr. Hope, the recently appointed Assistant Medical Officer of Health for that city. He estimated the typhus-bearing population at 230,000, of whom 90,000 dwelt in courts, 15,000 in lodging-houses of different kinds, 25,000 in cellars, and 100,000 in street houses. During the last few months 831 cases of typhus had come under the notice of the health authorities, and, strange to say, the great majority of these cases dwelt in street houses—i.e., in the best constructed houses inhabited by the lower class, and in those most likely to be free from fever. The cellars—abodes condemned by all sanitarians—were practically free, and so were the lodging-houses, whilst the courts were much less affected than the street houses. The mortality amongst those known to be treated at home was 43 per cent., but no doubt there were many cases successfully treated at home which the health authorities did not hear of. Dr. Hope showed from these figures that the prevalence of typhus was almost in an inverse ratio to the structural defects of the dwellings of the poor; and this was owing to the fact that the worst dwellings were best inspected—hence the outbreak of fever was detected at an early period, and the cases removed to hospital, or isolation secured. As regards the action of sanitary improvements alone in dispelling typhus from any locality, he could point to neighbourhoods (notably Fontenoy-street) where over £20,000 had been spent on the rebuilding or improvement of the houses, and where fever still raged as vigorously as before. In other places, demolition of insanitary property and rebuilding had dispelled typhus, but these were chiefly cases where a railway-station or a warehouse took the place of the insanitary property, and drove away the inhabitants as well as the disease. In Dr. Hope's opinion, the habits and social condition of the people were the chief agents in favouring or checking the spread of typhus. Constant police and sanitary inspection, both by day and night, would be far more effectual amongst the lower classes, even without better sanitary dwellings, than the improvement of property alone would be without a vigilant inspection. Prosperity to the inhabitants of these streets and courts meant drink and crime, whilst adversity emptied the gaols by lessening the facilities for obtaining drink. The proposals of the medical men of Liverpool to carry out more strictly the Dairies and Cowsheds Act would not touch the question, as there was no very close connexion between typhus and the milk-supply. The onus of giving early information should



be laid on the medical attendants of these poor people, as the people themselves could not be relied upon. Certificates for all children attending schools would involve an enormous expense, as medical men would require to be paid for such certificates. The argument that the poor were already under the skilled guidance of their own medical attendants he would leave to be appreciated by the common sense of those of his hearers who knew anything practically of these matters.

In the discussion that ensued, Dr. Bailey protested against the 43 per cent. mortality amongst patients treated at home as misleading. The mortality at home was less than in hospital. Dr. John Bligh described Fontenoy-street as an "old clothes" shop, in explanation of the persistence of typhus there in spite of improvements. Other improved streets, such as Gerard-street and Byrom-street, were the habitat of tramps, who constantly imported the disease. Drainage, cleanliness, and ventilation were the most potent factors in the production of typhus. He did not believe in a paper founded on the observation of sanitary inspectors.

Dr. Prytherch said the mortality of home patients would be always higher than that of hospital patients, because the former were in better circumstances, had a more highly organised nervous system, and hence succumbed more readily to typhus.

Dr. Carter regretted very much that at the present juncture, when the people of Liverpool were roused to the insanitary condition of the dwellings of the poor in many parts of the town, Dr. Hope should read a paper that seemed to prove that the improvement of sanitary property was useless in preventing typhus. In his opinion, the opposite was the case. In a district to which the late Dr. Duncan called attention many years ago, where typhus annually carried off one out of every twenty-five of the whole population, improvements of the dwellings alone had now almost stamped out the disease. In another notorious typhus district, sanitary improvements had so far succeeded that only one death occurred there last year. Attention to sewerage, the closing of cellars, and the opening up of courts were, in his opinion, the chief agents in preventing disease. It was never intended that the certificates required for school-children should be medical ones; the statements of the parents were to be accepted.

Dr. Roberts thought the high mortality amongst home patients arose from the fact that these cases were too ill, when discovered, to be removed to hospital.

Dr. Robertson maintained that insanitary property was not the real cause of typhus being endemic, nor the chief means of its spread. The filthy habits of the people had far more to do with the disease. In America, typhus was in many places as prevalent as in Liverpool, yet they had no courts there. Compulsory notification and early removal to hospital were the best methods of controlling typhus, and this was well shown by Dr. Hope's paper.

Dr. Barr said that typhus was almost unknown in Walton Gaol, and this showed the effects of sanitary dwellings upon the poor. Disinfection by the sanitary authority was generally a farce, and he only trusted the efficacy of disinfection when it was superintended by himself.

Dr. Archer thought the geological formation of the soil had something to do with the matter. He noticed from the maps sent round that typhus prevailed most in the low-lying alluvial districts, and vanished as the houses became more elevated and were built on the red sandstone. He advocated compulsory notification.

Dr. Hamilton thought compulsory notification was necessary in the localities mentioned in the paper, but this was quite different from the notification desired by the Corporation a year ago. Demolition of property was not so much to be aimed at as improvement of the present houses.

Dr. Whitford advocated compulsory notification without any reserve, as sometimes shopkeepers were most culpable in spreading typhus—more so than their poor customers,—and it would not be fair to allow them to escape. He cited two cases in point. Besides, he disapproved on principle of making one law for the rich and another for the poor.

Dr. Hope, in replying, disclaimed any idea of making capital out of the 43 per cent. mortality. It was fully explained in his paper. The observations on which the paper was founded were made by himself. He would remind Dr. Carter that the lessened mortality in the districts mentioned by him arose from the cleansing of cellars that were in an

abominable condition, rather than from structural improvement of property. Typhus did, in fact, occur, but did not spread on account of the early diagnosis and isolation. He had had five cases while resident in Walton Gaol. He was afraid the statements of the parents to the School Board authorities would not be of much use, as the poor he was speaking of were not to be relied on.

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### FEVER AND DIPHTHERIA IN MONMOUTHSHIRE.

IN certain parts of the registration district of Bedwelby, Monmouthshire, enteric and scarlet fevers, and diphtheria, had for the past two years been so prevalent that it was considered advisable to ascertain the causes of such prevalence; and, in March last, Mr. John Spear was deputed by the Local Government Board to undertake the inquiry. The districts in question are on the eastern limits of the South Wales coal-field, and comprise Abertillery, Blaina, and Nantyglo, and Ebbw Vale. The population may be said to be entirely a cottage population, and its sanitary observances may be gathered from the following description:—A practically universal prevalence of sewage and other filth nuisances prevailed, and an all-pervading dampness of soil and habitations, the latter often squalid and overcrowded; a water-supply in many parts totally insufficient for either bodily or household cleanliness; a population composed largely of children of the age most susceptible to scarlatinal infection, and including many individuals long exposed to privations; a population, moreover, amongst the younger members of which measles had just extensively prevailed. Even with such a state of things existing, scarlet fever did not, the report says, spread widely, and had any means for the isolation of the early sufferers existed, the best results might have been anticipated. Sporadic cases existed for months at Abertillery before the disease became epidemic, and for some weeks only two or three families were attacked at Blaina, Nantyglo, and Ebbw Vale. The sanitary authorities were, however, wholly unprepared to take advantage of circumstances so favourable to their action. No hospital was ready, and at no time was any attempt made to provide such accommodation. The medical officers of health reported that it was impossible to isolate the sufferers at their own homes, and at the time of Mr. Spear's visit, after two years of fatal experience, free intercourse between the sick and healthy was still going on, and children in the desquamative stage were being carried from house to house in neighbourly visits. In one year (1882) it is estimated that there were 2200 sufferers, and failure of the supply of susceptible individuals was apparently the sole limiting agency. Enteric fever was, the report adds, much more limited in its diffusion. During the last two years three small localities suffered notably—Victoria, a village of the Ebbw Vale district, and Garnfach, Nantyglo, in 1881, and a few streets and detached houses in Abertillery in 1882. In Victoria, in 1881, the disease spread almost from house to house, and altogether seventy cases occurred. Sewage nuisances abounded in the locality, excrement was being thrown into the street gutters, and the spread of the fever was mainly ascribed by the medical officer of health to the resulting excremental pollution of the atmosphere. Concerning this outbreak, it should be remarked that one fact elicited during the inquiry—viz., that the working-lads of this community suffered disproportionately, and were unusually often the first to be attacked in family invasions—received no explanation. At Garnfach between forty and fifty persons are believed to have suffered; and the outbreak in Abertillery resulted in sixty-one well-marked attacks, of which number thirteen proved fatal. Diphtheria was present in Blackwood, a straggling village with the worst of sanitary reputations, and in the neighbouring hamlets of the Newport Rural District, in the latter part of 1881 and in 1882. About twenty cases occurred in Blackwood, the attacks being invested with a great deal of obscurity, though apparently the village school played some part in the diffusion of the disease.





## ABSTRACTS AND EXTRACTS.

## SOLID TUMOURS OF THE ROUND LIGAMENT.

A RECENT number of the *Archiv für Gynäkologie* contains a careful paper on this subject by Dr. M. Sänger, of Leipzig. These tumours belong to the connective tissue group, their structure being that either of myoma, fibroma, sarcoma, or a combination of these. The author has collected twelve such cases, to which he adds a hitherto unpublished one of his own. In situation, he points out, they may be either *intra-peritoneal*, that is, growing from the part of the round ligament which is within the peritoneal cavity; *intra-canalicular*, i.e., in the inguinal canal; *extra-peritoneal*, that is, arising from the round ligament outside the inguinal canal; or they may grow from the abdominal wall, in such proximity to the origin of the round ligament that their connexion with that structure may be inferred. The third, or extra-peritoneal variety, are the commonest. Most of them are fibroid in structure. In eight out of ten of Dr. Sänger's cases the tumour was on the right side; and he asks, Does this arise from causes similar to those which cause a greater frequency of inguinal hernia on the right side? He cannot trace a predilection for any particular age. All the patients had borne children. The growth of these tumours is usually slow; during pregnancy they seem to increase with greater rapidity, and during the lying-in period to undergo a temporary retrogression or involution. The only exciting cause that Dr. Sänger can find, and this only in one case, is long-continued or severe pressure. The growths themselves appear to cause no symptoms until they get large, and then they may be painful and tender, and cause symptoms by pressure or dragging on other parts, such as dysuria, ovarian pain, constipation, abdominal and sacral pain, etc. They may thus deteriorate the general health. The diagnosis is extremely difficult; and there hardly seem to be sufficient grounds for formulating any diagnostic points. The only treatment of these tumours is removal. This is called for not only on account of the symptoms they cause, but also because of their liability to accidental injury and inflammation in consequence of their superficial situation.

## EXPERIMENTAL DIPHtheria.

A SERIES of valuable experiments and investigations upon the subject of diphtheria have lately been published in Leipzig by Dr. O. Heubner, and reviewed in the *Centralblatt für Klinische Medizin*, No. 43, 1883. Following the lines previously traced by Treitz, Oertel, Weigert, and others, who had already succeeded in the artificial production of false membranes upon mucous surfaces, he made a series of experiments with the view of producing such artificial membranes in a manner more resembling the natural processes of disease than had before been attempted. By modifying the blood-supply of a portion of the mucous membrane of the bladder he succeeded in producing a form of epithelial necrosis with the formation of a definite membrane in every way corresponding to that found in diphtheria. By occluding a large branch of an artery for several hours, and then restoring the circulation, he found that the following changes were induced:—Inflammatory cedema with detachment and vacuolation of the epithelial cells, the mucous membrane becoming surrounded with an albuminous exudation which speedily coagulated. In about ten hours parts of the tissue thus affected showed signs of necrosis; in forty-eight hours these parts became still further decolourised, and stood out as yellowish-white patches upon the surface of the mucous membrane. On the edges of these patches the surrounding healthy epithelium was observed to be thickly infiltrated with blood corpuscles. This coagulation-necrosis advanced steadily, gradually attacking the whole mucous membrane of the bladder, the hæmorrhagic infiltration advancing with it. It seems more than probable that the production of simple membranous croup in the human subject may be due to a similar temporary arrest of circulation from spasmodic contraction of vessels. But from Heubner's experiments it must be concluded that the immediate cause of the local affection of the mucous membrane in diphtheria must be temporary arrest and subsequent restoration of the circulation. This, however, is only a small part of the pathology of the disease.

By injecting into the circulation portions of genuine diphtheritic membrane, it was found that the poison concentrated itself especially within the artificially-produced patches of membrane, and injections made with this latter membrane were found to be far more fatal in their results than were those made with the first membrane, produced by the natural processes. Further, it was found that injections of apparently healthy membrane in the neighbourhood produced no result whatever. That an active poison must be at work in these cases is almost certain; but the question of its nature remains still unsettled. Whether it must be ranked with the class of septic poisons, of which Koch has enumerated a series, or whether a genuine diphtheritic poison exists distinct from these, cannot at present be proved, although Heubner's experiments have fairly opened a way which may eventually lead to its discovery.

COMPARATIVE MORTALITY IN THE FRENCH MARINE INFANTRY AND THE ARMY.—In France and Algeria the mortality in the Army is 8.65 per 1000 men. In the Marine Infantry it is—in France, 18.9 per 1000; in Martinique, 32.2; in Guadeloupe, 34.5; in Senegal, 146.6; in Réunion, 20.9; in New Caledonia, 28.1; and in Cochinchina, 97 per 1000. These figures are the means of the eight years 1872-80, inclusive; and according to them the general mortality of the French Marine Infantry is 70.7 per 1000. For the officers separately, while the mortality of the Army is 6.81, it is in the Marine Infantry 39 per 1000.—*Lyon Méd.*, October 14.

AN OLD PRACTITIONER.—It is well known that in tables of mortality arranged according to occupations medical practitioners occupy a very unfavourable position. There are, however, exceptions to this law, and more than one example of such is to be found amongst the members of the French academies. Rarely indeed, however, has such a limit been reached as that attained by Dr. Jackimovitz, of Jarvyszinka, in the Government of Kiew. This worthy Russian *confrère* has died at the age of 106, and almost to his last days was able to meet the exigencies of an important practice.—*Gaz. Méd.*, November 24. [The population statistics of Russia supply so large a proportion of cases of great longevity as to lead to the conclusion that that country is very exceptionally placed in this matter, or that the figures are not compiled with the accuracy deemed necessary in other parts of Europe.]

CHINESE HOSPITAL BEDS.—“Without going into details of the peculiar arrangements of this hospital, it may be admissible to state that the character of the beds is one of the most curious of its features. They are constructed of large bricks set in mortar, having a fireplace beneath each, in which straw, hay, and brush are burned for heating the whole. Thus, each patient has his own fire by which all his food is cooked in utensils furnished by himself. Now, when a Chinaman takes to one of these beds, which might with propriety be termed a brick oven, he immediately proceeds to divest himself of all clothing to the skin, nothing remaining on the body save, it may be, a piece of cloth around the loins. He then places himself between two thick, coarse, plank-like quilts, with his neck on a wooden pillow. This is the Chinese fashion of preparing for and going to bed, and although it has drawbacks, yet it allows, certainly, of free inspection of the individual at a moment's notice. And let it be remembered that for nearly half the year the climate of Tien-Tain is arctic in severity, there being no artificial heat in the building save that derived from the burning brush or straw in the small fireplaces beneath the so-called beds. It is not uncommon for operations of magnitude to be performed in an almost freezing temperature, the patient being nearly nude—this fact illustrating the great vital powers of this hardy people.” The above extract is taken from an account of “Medicine in China” furnished by a correspondent of the *Philadelphia Medical News* (August 25). The hospital he alludes to is one erected at Tien-Tain, the port of Peking, by the enlightened and progressive statesman, the Viceroy Li Hung Chau, in recognition of the cure of a prolapsus uteri occurring in his chief wife by the advice of Dr. Mackenzie, of the London Mission, and the immediate intervention of Mrs. Howard, an American lady-doctor, practising in Peking. In this article he states that the Chinese sick and insane poor are left in the most deplorable condition, utterly unattended to, except in the foreign settlements.



## REVIEWS AND NOTICES OF BOOKS.

*The Filaria Sanguinis Hominis, and certain New Forms of Parasitic Disease in India, China, and Warm Countries.*  
By PATRICK MANSON, M.D. London: H. K. Lewis.  
1883. Pp. 182.

DR. MANSON has rendered the profession a real service by putting together the various papers on the above subject which have from time to time appeared from his pen, and in the monograph before us we have a concise but perfectly clear account of all that is known about the *Filaria sanguinis hominis*, and the diseases associated with it. To Dr. Manson belongs the credit of having been the first to demonstrate that the parent worm resides in the lymphatics, which he was enabled to do by finding her protruding from the cut end of a lymphatic vessel in an amputated scrotum. Even before this conclusive evidence was obtained, "the lymphatics were credited with being the proper habitat of the animal"; and in another passage we read, "ova, however, have been found in the lymph, and the ovum being too large to pass from the outside to the inside of a lymphatic, and having no power to work its way, the parent that laid it must have communicated directly with the lymphatics. Again, in not a few instances, filaria embryos have been found in the lymph discharges of individuals from whose blood not a single specimen could be obtained; they could not, therefore, have come from the bloodvessels. It may be taken as settled that the parent worm lives in the lymphatics." The embryos then are discharged into the lymphatic vessels, and, being very minute, they pass through these, traverse the lymph-glands to reach the thoracic duct, and so make their appearance in the blood. It is thus that we may explain the presence of ova or embryos in the blood of persons who are apparently perfectly healthy, for the worm may reside for years in the lymphatics without giving rise to any symptoms. For an extremely interesting account of the manner in which the parasite is liberated from the blood, and a description of all that is known of its life-history, we must refer our readers to the work itself. So long as the embryos do not reach the lymphatic vessels until they are fully developed, all goes well; they pass into the bloodvessels, and their existence causes no inconvenience to their host; but the ovum in its original state is more or less round, and a great deal larger than a lymph-corpuscle, and, should it be expelled prematurely, we read—"It is not too large to pass along the vessels; but when the lymph-stream has carried it to the glands it is immediately arrested, for there the afferent vessel breaks up into many very minute branches, which end in the solid parenchyma of the gland. The imprisoned embryo has no power to aid its onward progress; but the egg lies like an embolus—passive, plugging the vessels, and damming up the lymph. There will then be complete stasis of lymph in this particular vessel as far back as the first anastomosing lymphatic. Along this the current will now pass, carrying with it other ova; these in their turn will be arrested at the first gland they reach. And this process of embolism, stasis of lymph, diversion of current into anastomosis, will go on until the whole of the lymphatic glands, directly or indirectly connected with the vessel into which the parent parasite ejects her ova, are rendered impervious, provided the supply of embolic ova is sufficient, kept up long enough, or renewed from time to time." If the worm be seated in the lymphatics of the leg, the ova in such a case as we are supposing will be obstructed at the lymphatic glands in the groin. When all these have become obstructed, they will be carried by deep anastomoses to the other leg. When all the glands of both legs have become blocked, a condition of elephantiasis of the leg or legs will result, and also of the scrotum. If the parent worm is in the pelvic lymphatics, then, when the pelvic and lymphatic glands have become obstructed, we should get chyluria. When the lymphatics of the over-distended scrotum give way, the condition known as lymph-scrotum is produced, and, in the fluid that escapes from these, ova or embryos may be found. Dr. Manson was the first to call attention to the fact that the embryos are present in the blood in far greater numbers at night than during the day—a fact which Cobbold has pithily described as "filarial periodicity." The causes of this are still obscure. It has been shown that neither temperature, atmospheric pressure,

nor light has anything to do with it. Following up Dr. Stephen Mackenzie's ingenious experiment of making the patient keep awake at night and sleep in the day, Dr. Manson finds "that filarial periodicity is maintained during prolonged watching; and also when the hours of eating are changed, so that the middle meal is taken at midnight, and not, as usual, at midday; also that prolonged sleep possibly disturbs periodicity, and diminishes the number of parasites circulating at the time of maximum; and that when the usual allowance of eight hours' sleep is taken in spells of four hours at a time, at intervals of eight hours, periodicity is disturbed, and the numbers circulating at the time of maximum are sensibly diminished." That this periodicity is not due to intermittent reproduction, as has been suggested, is proved by the fact that the embryos are constantly present in the lymph, and that their numbers do not vary much; and, on the whole, Dr. Manson's theory that during the day they retire to some set of vessels (probably the pulmonary circulation) seems the most plausible. His chapter on the parasitic nature of elephantoid diseases, and that on the clinical evidence that these diseases are due to plugging of the lymphatics by ova, will well repay perusal. The volume concludes with an account of the *Distoma Ringeri* and *Ligula Mansonii*, but we have, unfortunately, not space to do more than mention them. We cannot too highly express our opinion of the value of Dr. Manson's investigations, conducted, as they were, single-handed and under difficulties to which we in this country are strangers.

*Annual Report of the Sanitary Condition of Nottingham in 1882: comprising an Account of Ten Years' Sanitary Work, and its Effect upon the Public Health, as shown by the Death-Rate.* By EDWARD SEATON, M.D. Lond., M.R.C.P., Medical Officer of Health, etc.

IN 112 well-printed pages, many tables, and two maps, we have at once a report and a history—a report of the sanitary condition of Nottingham in 1882; a history, nay almost an itinerary, of the growth, manufactures, and topography of the restless growing city on the banks of Trent.

We gather from these chronicles that the town has been in some directions a pioneer in sanitary progress; it was the first to possess a hospital for the isolation of the infectious sick, and the first to establish a constant water-supply. It has grappled so successfully with the sewage difficulty that this is utilised, not wasted. The pail system, replacing the old middens, enables the Authority to sell to farmers 60,000 tons a year of night-soil at a profit, while an outfall sewer five feet in diameter, tunnelled a mile and three-quarters through a hill, carries liquid sewage far away to a farm, to be dealt with by intermittent irrigation. Another great work—an intercepting sewer eleven miles in length (with the outfall)—protects the river Leen from pollution.

An experiment of great interest has been tried since February 22, 1882, a clause in the Nottingham Health Improvement Act having been put in force, under which the Authority has paid threepence for each certificate giving notice of infectious disease. Under this system, sixty-three medical men gave information of over 1500 cases of disease, many of which, without doubt, would have been formerly either concealed from, or not known to, the Health Authority.

Turning to the vital statistics of Nottingham, it still maintains its unenviable notoriety as a destroyer of infant life. The high infant mortality is the prominent feature of the death-returns, and colours the death-rate. Of a thousand children born, only 812 survived their first year. The deaths of children under five years of age are 99 per 1000 living, as against 65·7 of the English life-table. Dr. Seaton refers the excess, not to sanitary conditions, but to maternal neglect—truly a sad explanation. Subtracting the deaths of children under five years of age, the rates of other ages in nearly every case are lower than those of the English life-table.

The ten years' summary is full of interesting and clearly expressed information. The outcome of the striving—of the scavenging, disinfecting; of the pulling down of disease-sodden tenements, the building of new; of isolation of the infectious sick—and of the continuous and varied labours of many years, is proved by Dr. Seaton to be a reduction in mortality of no less than one and a half per 1000. This Report should be studied by students and health officers.



The one will find a complete epitome of the details of sanitary work; the others, encouragement. We also trust that copies will be presented to most public libraries for preservation and reference.

*A Memoir of John Deakin Heaton, M.D., of Leeds.* Edited by T. WEMYSS REID. London: Longmans, Green, and Co. 1883.

AFTER a distinguished career at University College and the University of London, Dr. Heaton determined to settle in practice in his native town—Leeds,—and soon after became Lecturer on Botany in the Medical School. He remained connected with the school in one capacity or another for thirty-five years, and on his final retirement from it in 1877 he received a handsome testimonial from his old colleagues. But though he had always been held in the highest esteem and respect by his colleagues and pupils, yet from a professional point of view he did not succeed: he never enjoyed a large or lucrative practice; and of this he was fully conscious. This was not due, however, to any want of medical knowledge or skill, for those who consulted him recognised in him an able and painstaking physician. But it is on account of his public career rather than his professional one that Dr. Heaton will be, and deserves to be, remembered in Leeds. For several years he was President of the Philosophical and Literary Society; he was one of the members of the first School Board in Leeds; and was one of the earliest and most ardent founders and supporters of the Yorkshire College of Science. These and many other public offices which he filled must have made great demands upon his time, but this he gave ungrudgingly, and no man could have been more punctilious in the discharge of his duties than he was.

## REPORTS OF SOCIETIES.

### THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 7.

Dr. GERVIS, President, in the Chair.

#### FIBROIDS REMOVED BY ABDOMINAL SECTION.

Dr. MEADOWS exhibited two specimens of sub-peritoneal fibroids, one weighing half a pound, the other five pounds, successfully removed by abdominal section.

#### VENTRAL PREGNANCY TREATED BY ABDOMINAL SECTION.

Dr. MEADOWS also exhibited a foetus successfully removed by abdominal section from a suppurating extra-uterine cyst. The pregnancy had occurred about fifteen months previously. The cyst was stitched to the abdominal wall, and its cavity washed out.

#### DEFORMED PELVIS.

Mr. W. S. A. GRIFFITH showed an oblique rachitic pelvis, occurring without spinal curvature, and due, he believed, to unequal length of the legs.

Dr. ROBERT BARNES had figured in an early volume of the *Transactions* a similar case.

The PRESIDENT called attention to the fact that the half of the sacrum corresponding to the shorter leg was smaller than the other, although no synostosis of the sacro-iliac joint existed.

#### CÆSARIAN SECTION.

Dr. GODSON presented (for Dr. R. P. HARRIS) a table of cases in which Cæsarion section had been performed twice on the same patient, and exhibited photographs of a patient and her children.

#### DYSMENORRHOÆAL MEMBRANE.

Dr. WYNN WILLIAMS exhibited a fibrinous cast of the uterus (dysmenorrhœal membrane) passed without pain by a patient.

#### REPORTS OF COMMITTEES.

The reports of committees appointed to examine specimens shown at former meetings were then read.

#### THREE CASES OF PYOSALPINX.

This paper, by Mr. LAWSON TAIT, was then read. The author related three cases of acute peritonitis due to pyo-

salpinx cured by abdominal section, removal of the diseased appendages, cleansing and draining of the peritoneum. The first case was one of chronic pyosalpinx made acute by a stem pessary. The tube burst, and acute peritonitis followed. Abdominal section was promptly performed, and the patient saved. Mr. Tait quoted the remarks of the gentleman who sent the case to him, as to the effect of the mechanical treatment in causing the disease, the difficulty in discriminating the cases suitable for treatment by stem pessaries, and the dangers of these instruments. The second case had already been published in the *British Medical Journal* of February 17, 1882, and was brought forward here for the purpose of recording the subsequent history, which was that all the symptoms had vanished, and the patient was now perfectly well. The third case was one of purulent peritonitis arising from rupture of a suppurating Fallopian tube. The pyosalpinx was due to gonorrhœal infection. The left tube only was removed. The patient recovered completely. Mr. Tait had now operated on sixty-five cases of occlusion and distension of the Fallopian tube without a death. In only one had there been failure to completely relieve the patient's sufferings. Six cases had been lost sight of, and two had died since the operation, from causes independent of it. The author remarked that cases such as these could not be relieved by anything short of removal of the diseased organs; and that they existed in large numbers, forming a large proportion of the cases which wander about from one practitioner to another, seeking relief. He also complained of some unjust and ungenerous criticisms which were frequently repeated to him, and he asked those who expressed such views to come and see his work.

Dr. WYNN WILLIAMS protested against the use of a stem pessary in such a case as the one related. If harm followed the use of a stem in such a case, the blame should be laid on the practitioner, not on the instrument. He presumed the pyosalpinx was not attributed to the stem, as it must have been there previous to the insertion of the instrument.

Mr. DORAN believed that suppuration of the Fallopian tube was sometimes caused by the introduction of a dirty sound into the uterine cavity, conveying septic matter therein, and setting up a low form of inflammation.

Dr. ROBERT BARNES said that Mr. Lawson Tait had opened out a new field in abdominal surgery. It was to be expected that there would be opposition to his views. Everyone must have seen cases like those described by Mr. Tait, and his statistics proved that they were amenable to surgical treatment.

Dr. W. A. DUNCAN asked Mr. Tait whether in many of his cases the tubes were fixed by adhesions, and, if so, whether the operation was made much more difficult? He had recently seen two cases of pyosalpinx: in one, the left tube ruptured into the vagina; in the other, a very characteristic left pyosalpinx entirely disappeared.

The PRESIDENT thought Mr. Tait took somewhat too gloomy a view of the prognosis in cases of tubal distension. Some cases, possibly of hydrosalpinx, certainly got better without operation. He thought that whatever induced endometritis might lead to tubal inflammation. He asked for further information as to the diagnosis of these cases. He thought that this operation, though the latest, was not the least important of recent advances in abdominal surgery.

Dr. HORROCKS asked how it was that these cases were not more often seen on the post-mortem tables of large hospitals. If they were so common as Mr. Tait thought, was it not probable that most of them got well without operative interference?

Dr. FANCOURT BARNES congratulated Mr. Tait. He now recognised, by the light thrown by Mr. Tait, several cases of pyosalpinx. He believed he had such a case now under care.

Dr. GRAILY HEWITT thought the affection described by Mr. Tait was not a common one. Another cause, not mentioned, was occlusion of the canal of the cervix uteri. He mentioned a case in illustration.

Mr. KNOWSLEY THORNTON asked for the respective numbers of the cases of hydrosalpinx and pyosalpinx. He could not admit that hydrosalpinx was a grave condition; he had met with it often in performing ovariectomy, and believed that its bursting caused little or no disturbance, and was a common mode of its natural cure. Pyosalpinx



was more serious, but he believed it was often cured by discharging into the uterus. The distinction between these two conditions was therefore of much importance, and he asked for information as to the diagnosis between them. He had twice operated for pyosalpinx, and in neither case were there more than slight adhesions.

Dr. MATTHEWS OWENS had seen some fifteen of these operations, and could vouch for the great good done by them. He believed that many cases of so-called hysteria would now prove to be due to disease of the Fallopian tube. He mentioned a case in illustration. Such cases were not recorded in post-mortem records, because they were put down as peritonitis. The difficulty of diagnosis of these cases was a drawback. But the risk of an exploratory incision was nil, and the result, if pyosalpinx were found, brilliant.

Dr. GALABIN inquired as to the tube and the fluid used for drainage and washing out the abdomen.

Dr. MURRAY remarked on the importance of diagnosis, and congratulated Mr. Tait. He thought the Lock Hospital might afford opportunity for verifying the supposed influence of gonorrhœa.

Dr. HEYWOOD SMITH asked whether, in cases of hydrosalpinx, aspiration should not be preferred to the major operation?

Mr. LAWSON TAIT said the words condemning the stem pessary were not his own. He had known gonorrhœa given by a dirty speculum, and thought it might be given by a dirty sound. If he were called to a case of puerperal peritonitis sufficiently early to promise a good result, he would open the abdomen, wash out and drain the cavity; but as yet he had not had a chance of doing this. He had no doubt that many cases of hydrosalpinx and some of pyosalpinx were cured by natural processes. In diagnosis, he depended largely on the history, which started from an inflammatory attack. There was more or less constant pain, aggravated by movement and by intercourse, and menorrhagia; and there were physical signs of pelvic changes. Errors in diagnosis occurred in his practice about once in ten times, and were always instructive. He mentioned cases in which he had taken for pyosalpinx a small dermoid cyst. In these, the initial point in the history was the only thing wanting. Cases of pyosalpinx were not seen in hospital post-mortem rooms because they commonly died from peritonitis too quickly to come into hospital. They were, however, exceptionally seen in hospitals. Hydrosalpinx and pyosalpinx occurred in his practice, he thought, in the proportion of about three to two. Hydrosalpinx was not dangerous to life, but often caused intense suffering, and therefore he did not hesitate to remove it. He did not think its rupture ever likely to prove fatal. The differential diagnosis between the two could not be made. He used a glass drainage-tube and washed out the abdomen with plain water. He expressed his gratification at the reception of his paper.

#### A CASE OF IDIOPATHIC GANGRENE OF THE UTERUS.

This paper, by Mr. LAWSON TAIT, was then read. The patient, aged thirty-four, was admitted into hospital on account of vague pelvic pain and offensive watery discharge. The uterus felt soft and flabby, the abdomen was swollen, and there were feverish symptoms. The patient died forty days afterwards, and on post-mortem the uterus was found a black, sloughing, stinking mass, having only about a square inch of normal tissue. No reason could be discovered for the gangrene. No operative treatment was permitted, or else it would probably have been quite easy to remove the dead uterus by abdominal section.

#### AN UNDESCRIBED DISEASE OF THE FALLOPIAN TUBES.

Mr. LAWSON TAIT also contributed the following case. The patient, aged thirty-six, suffered from constant pelvic pain aggravated during menstruation and after marital intercourse, and was much emaciated and haggard. She had had much fruitless medical treatment. There were no physical signs of pelvic disease, except great tenderness. Mr. Tait made an exploratory incision, and found the fimbriae of the tubes adherent by curious little nodules like millet-seeds. He therefore removed the uterine appendages, with the result of completely restoring the patient to health. The nodules had been examined by Mr. F. S. Eve, who reported that he could offer no opinion as to their origin or nature, but that they were neither cartilage nor bone.

## THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 23.

Sir ANDREW CLARK, Bart., President, in the Chair.

#### CASES OF THICKENED EPIDERMIS TREATED BY SALICYLIC PLASTER.

Dr. GEORGE THIN gave an account of cases of thickened epidermis treated by salicylic gutta-percha plaster. The plaster which he used was manufactured by Herr Beiersdorf, of Hamburg, at the suggestion of Dr. Unna, who had introduced it into practice. *Case 1* was that of an adult man, in whom a tendency to extreme tylosis of the soles and palms was hereditary. The palms and soles in this man's case were covered with an extremely thick and hard epidermis, and had been for many years in this condition, the affection having resisted very varied methods of treatment. The treatment by the plaster was in the first instance recommended by Dr. Unna, and the author simply continued Dr. Unna's treatment. Under the use of the salicylic plaster, which was kept constantly applied by means of bandages, and changed every third or fourth day, the hard layer of epidermis came off in one mass, leaving a delicate rose-coloured epidermis behind it. There was neither pain nor inconvenience connected with the use of the plaster, and the patient, a business man actively employed, was able to follow his usual avocation without interruption. *Case 2*.—A gentleman, aged seventy-two, who had always been healthy, was unable to walk for a period of six or seven months on account of an attack of sciatica. When the sciatica was relieved he somewhat suddenly resumed his professional employment in the City, which at the time involved a good deal of walking on the hard pavement. The result was that the soles of both feet became hot and tender, and after a few weeks the skin of the ball of each foot became hard and horny. When he consulted the author this condition had lasted for about seven years, and gave rise to much pain and discomfort. The whole of the surface of the ball of one foot and part of the surface of the other were covered with a layer of epidermis of extreme hardness. In this hard layer there were small isolated horny formations of the nature of corns, which produced the same sensation as if the patient were walking on shot or on small hard stones. The first treatment recommended was the application of strong solutions of potash and scraping with a sharp spoon, and wearing a horse-hair pad in a large boot. This alleviated the condition, but the application required to be frequently repeated. The salicylic plaster relieved the condition for several months at a time. *Case 3*.—In a gentleman, aged forty-three, the palmar surface of the right forefinger had been covered for years by a thick, hard, fissured epidermis. This morbid formation had been removed by the salicylic plaster, and the skin of the finger had remained normal when the patient was seen by the author nine months afterwards. *Case 4*.—A gentleman, aged forty, had suffered from the condition of his heels for about twenty years. It had begun by the skin being red, tender, and scaly, and the hardness had gone on progressively increasing. The condition had been on several occasions mistaken for syphilis, and, amongst other methods of treatment which had been employed in vain, several antisyphilitic courses were to be reckoned. When seen by the author the skin of both heels was covered by thick, hard, horny, uneven masses, which rendered walking very painful. Solutions of potash and a scraper, which were first recommended, had been used faithfully for a year almost daily, but with only temporary alleviation. When the author became acquainted with the specific action of the salicylic plaster it was recommended to the patient. Although by its use the tendency to horny formation was not removed, yet the hard masses had been completely got rid of, the patient could walk with comfort, and with the occasional use of the plaster the fresh formation of hard masses was avoided. The author regarded the condition of which these cases were examples as being essentially allied to eczema. The formative power of the epithelium was injured mechanically or otherwise, and an imperfectly formed epidermis resulted. By its solvent power on horny epidermis, salicylic acid incorporated with gutta-percha, as in Beiersdorf's plaster, freed the skin from an adherent irritating mass, and the deeper layers of the rete



mucosum were placed in more favourable conditions for regaining their physiological properties.

The PRESIDENT asked for further particulars as to the structure of the plaster employed. Noting Dr. Thin's statement that different classes of warts were differently affected by the treatment, he asked for further information upon that point also.

Dr. THIN replied that the good results were generally obtained in the case of large ragged warts, whether treated by salicylic plaster or, as in some cases, by a saturated solution of salicylic acid in alcohol. The exact quantity of the acid contained in the plaster was not known. These plasters were peculiar in being spread upon gutta-percha, which might in itself be an element in the success of the treatment, part of the effect of the plaster being due to the maceration of the tissue beneath it.

Mr. BUTLIN, speaking partly on behalf of Mr. T. Smith, referred to the action of salicylic acid in cases of carcinoma, and mentioned the success obtained by Mr. Smith in the treatment of an obstinate wart of long standing by a saturated alcoholic solution of the acid. In cases of ulcerating carcinoma and rodent ulcer he had had equal success subsequently. Mr. Butlin had not himself tried the treatment in cases where the disease had already attacked subcutaneous tissues.

Mr. MORRANT BAKER referred to a case of non-syphilitic warts in which salicylic cream (the acid rubbed up with vaseline) had been applied with far more success than had attended other modes of treatment. A saturated solution of the acid in collodion had been used and sold under the name of "Solvine."

Dr. THIN, in reply, stated that he had had no opportunity of trying salicylic acid in cases of carcinoma.

#### A TYPICAL CASE OF MYXŒDEMA.

Dr. DREWITT exhibited a case of myxœdema in a woman, aged forty-five, who had been an out-patient at the West London Hospital during the last year. The disease was of twelve years' standing, dating from a time when the woman lost her husband and one of her children. At that time she was slightly built and active, but since then she had gradually become stout and heavy, slow and languid and feeble in moving, slow and deliberate and indistinct in her speech. She would now give anything to be able to move or speak as readily as she once did. She was afraid of going about alone lest she should be run over, and she could hardly lift her feet high enough to get upstairs. She was always cold, even in summer, and never perspired. Her bowels were obstinately confined. There was dyspepsia, and she had partly lost the senses of taste and hearing. All the characteristics of the disease were present—the generally swollen look; the round and fat face; the sallow, translucent, wax-like skin, broad nose, and thick, coarse, purple lips; on the cheeks was the same peculiar dusky reddish-purple colour, caused by dilated capillaries and veins. The eyelids were pendulous and transparent; the tongue, which was pale, swollen, smooth, and tooth-marked, was too large for the mouth, and more "cretinoid" than the intellect; the soft palate was also swollen and pale. The abdomen was greatly enlarged, as if from growth of fat; the swelling, in fact, was universal, but there was nowhere pitting on pressure. The skin of hands and arms was rough and scaly, as in xeroderma. The hands were thick and swollen, and could no longer be clasped; the wedding-ring had become embedded in the swollen finger, and had been cut out. Pulse 76, feeble. Heart-sounds distant, feeble; no murmur. Temperature in axilla only 95°. Urine: Specific gravity 1011; no albumen or sugar. Dr. Drewitt remarked that the spade-like, clumsy hand had been especially noticed by Sir William Gull in his paper read before this Society, describing the disease for the first time, just ten years ago; but he thought that the most striking physical peculiarities were the pendulous eyelids, like alabaster in translucency, and the purple, pouting lips. Tranquillity was also, in those few cases he had seen, a most marked characteristic—tranquillity of mind, undisturbed by emotion; tranquillity of body, undisturbed by change of expression, or by any sudden speech or movement. Though painfully conscious of their own state, there was no irritability. He once travelled in an omnibus for some miles, sitting opposite to a woman with this disease, and though she noticed all that was going on, the face remained like that of a statue, absolutely unaffected by any of the

little changes of expression through which the faces of others are continually going, in response either to their thoughts or to the world around them. As to the pathology, Dr. Ord had described the post-mortem appearances. The whole connective tissue of the body had been found swollen and jelly-like, and œdematous with mucin. This swelling seemed sufficient to account for all the symptoms. The heart and arteries were obstructed by it, and hence the feeble blood-current, the deficient aëration of the blood, and the purple of the cheeks and lips. The tongue and palate were swollen with it, the intestine choked by it, the senses dulled, the functions of organs interfered with, and the patients died with all their tissues smothered by their own padding. In treatment of this patient he had found strychnia of the most value, and both muscular movement and speech had increased in briskness under it. In the appearance of the patient, however, there had been no improvement. As to the origin of the disease, it had been perhaps rightly ascribed to nerve influence. Great anxiety or mental shock had occurred at the beginning of many cases. In Dr. Ord's first case, as in the one now before the Society, it followed upon the fatal illness of a husband. In Dr. Cavafy's first case it followed a shock; in his second, a bad time at childbirth. Dr. Duckworth's second patient mentioned that it came on after her husband had kicked and ill-treated her. Dr. Semon's patient had fourteen children and some miscarriages in a "comparatively short time." Great mental anxiety or distress profoundly depressed vitality. The secretion of gastric juice, saliva, bile, were all influenced by emotion; mental shock was given as a cause of atrophy of the liver; and syncope might follow bad news: therefore it would not be wonderful if it should be shown that the nutrition of the connective tissues of the body were altered in that way. Sir William Gull, in his paper, had alluded to the changes in the thyroid in true cretins. It would be interesting to know whether instances either of atrophy or hypertrophy of the thyroid had been observed in any of these cretinoid cases. Our knowledge of the whole subject was still in its infancy, and it was impossible not to believe, when such a definite, well-marked disease—the cases of which were so like each other, and so unlike anything else—had existed so long unrecognised among us, that there might not be many more facts about it to be discovered, only less important than the discovery of the disease itself.

The PRESIDENT suggested that, before a discussion commenced upon the subject of myxœdema, a further communication might with advantage be interpolated, and he called upon

Dr. FELIX SEMON, who reminded the Society that a paper had lately been published by Prof. Kocher in Berlin on the subject of "Extirpation of Goitre and its Consequences," recording his experience of 101 cases of such extirpation. In 1874, Prof. Kocher's attention had been called to certain peculiar changes which had been observed to occur in one of the cases upon whom he had operated. Knowing nothing of the disease myxœdema at that time, he was struck with the cretinoid condition produced in his patient, and forthwith proceeded to communicate as far as it was possible with the other cases upon whom he had operated. In some of these cases only a part of the thyroid gland had been removed, and of these he was able to find twenty-eight patients who had not only experienced relief from their immediate trouble of dyspnoea, but had continued in good health afterwards. Of eighteen cases in which the gland had been completely extirpated, only two patients had been improved in health, and of these, one was found to have had a small accessory thyroid gland which had escaped observation, and had undergone subsequent hypertrophy; the other, owing to incompleteness of the operation, had still a small portion of the thyroid left intact. In the remaining cases Dr. Kocher had found that a progressive condition of ill-health had been observed, the symptoms of which corresponded exactly with those of myxœdema as we know it at present. In some of the cases, and especially in the younger patients, mental activity had not been much retarded, full consciousness being retained of the progressive loss of bodily and mental power. Anæmia was a very general condition, a diminution in the number of red corpuscles and slight augmentation of the number of white cells being occasionally observed. The occurrence of albumen in the urine was rare. The only change observed in the retina was slight general narrowing of the arteries. One point of difference in the etiology of



the disease in these cases, as compared with others previously recorded, was its occurrence in young children as well as in adults. Dr. Kocher had called his cases cachexia after extirpation of the thyroid gland, and had suggested the theory that the changes observed were due to the absence of that organ. Dr. Semon then referred to a case of his own in which the thyroid body had been removed by Mr. Lister three years ago, and in which no other symptoms than swelling of eyelids and general anæmia had yet shown themselves. He stated his own belief that the cachexia after removal of the thyroid, the cretinoid condition, and myxœdema were not distinct diseases, but rather different phases of the same. Although speculation as to the causation of the disease must be regarded as premature, he threw out the suggestion that the thyroid body had some direct influence upon the proper formation of the blood, and that, when this influence is by any means withdrawn, a tendency on the part of the tissues of the body became manifest to form lowly organised matter, such as that of which myxœdematous material consisted, instead of the true physiological tissue peculiar to the part.

The PRESIDENT mentioned that in his own cases of myxœdema he had observed that the quantity of urea present in the urine was liable to variation at different periods, sometimes increasing considerably, and at others decreasing.

Sir W. GULL, in response to a call from the President, said that he was not able to contribute any further information upon the disease. He considered that the profession was greatly indebted to Dr. Ord for the light that he had thrown upon the pathological aspect of the affection; but with regard to its mode of origin we were still unable to speak with confidence. If it was of a neuropathic nature, was its origin central or peripheral? He pointed out that the late Dr. Hilton Fagge, in his paper on "Sporadic Cretinism" in the *Medico-Chirurgical Transactions* for 1871, had mentioned the fact that in most cretins the thyroid gland had become atrophied, and had suggested a possible connexion between the two conditions. The cases communicated to the Society by Dr. Semon appeared to bear out the truth of this suggestion. The question, however, still remained, did the disease become developed as a consequence of the changes in the thyroid, or must the alteration of the tissues be regarded as the primary manifestation? That the removal of a single gland should produce such definite changes was no doubt remarkable, but not more remarkable than were the changes at present observed to result from the removal of the ovary or the testes. If a simply nervous origin must be found for the disease, it would have to be classed among the tropho-neurotic affections.

Dr. ORD, who had communicated with Dr. Kocher after the publication of his paper, calling his attention to the similarity between his cases and those of myxœdema, had received a reply, parts of which he read. The writer, having compared the cases, expressed no doubt as to the analogy between them. The atrophy of the thyroid was a most important point. At first he had been led to believe that the affection in his own cases was confined to children, but he had subsequently met with it in adults. The operation of extirpation itself might possibly be held to have some influence in producing the results, as it was not unlikely that some injury might be at the same time inflicted upon the fibres of the sympathetic nerves. Dr. Ord considered that the outcome of Dr. Kocher's cases pointed in the same direction as did the previous observations of Sir W. Gull, Mr. Curling, Dr. Fagge, and himself, viz., that atrophy of the thyroid gland was directly associated with cretinism. He referred to Dr. Fagge's observation that people with large goîtres were not cretins. He himself had found in some cases of myxœdema the thyroid larger than normal, and in one case had observed a history of exophthalmic goître preceding myxœdema. Possibly enlargement of the gland might be accompanied by such alteration of function as to render it useless. With the present evidence he considered that there could be no doubt that the thyroid body played a chief part in the production of the disease, but in what manner could not at present be decided. Having studied the subject of myxœdema for twenty years, and examined a large number of cases, Dr. Ord had become very cautious about prematurely theorising as to the possibilities of its mode of production.

Dr. BURNEY YEO mentioned a case observed some years

ago, in which very complete loss of hair and eyebrows had taken place. With respect to the fluctuations observed in the quantity of urea excreted, he considered that a wider application must be made, since such fluctuations were very frequently found in conditions of ill-health preceding the development of organic disease.

Dr. CAVAFY asked for some further information with respect to the natural history of myxœdema. He believed that there were at times periods of quiescence with distinct improvement in symptoms, and mentioned the case of a woman of thirty-three, in whom, after childbirth, a marked improvement took place during the period of lactation. A second case, with ascites, had experienced marked relief whilst the peritoneal effusion had been allowed to remain. Marked variations in symptoms might take place without any assignable cause. In one case he had observed pain and vomiting to occur with a severity resembling that of the *crises gastriques* of Charcot.

Dr. RADCLIFFE CROCKER believed that the estimation of urea was often attended with much fallacy. In order to determine a definite standard of daily excretion he had himself made observations upon dogs, but had been struck with the great variation in the quantity excreted, other conditions of life being maintained exactly the same. As great a difference as between seventeen and twenty-nine grammes had been observed without any discoverable cause. In cases of universal dermatitis, too, he had been equally unsuccessful in obtaining satisfactory results.

Dr. HADDEN had also made observations upon the excretion of urea in myxœdema, with equally varied results. Having had the opportunity of examining the sympathetic nerves in cases of myxœdema and exophthalmic goître, he had found no change whatever.

Dr. ORD, agreeing with Dr. Cavafy as to the occurrence of fluctuations in the course of the disease, thought that the general tendency of the cases was to get worse. He mentioned a case in the course of which two pregnancies had taken place without any effect being produced on the myxœdema at the time or subsequently. Six cases during the last three years, however, had shown progressive improvement. Being struck with the complete inaction of the skin, he had given jaborandi in doses of thirty minims and upwards for three or four months in succession, with excellent results in some cases. In one, the patient, from being helpless, had so far recovered as to be able to go about her work; in another, the characteristic heavy, puffed face of myxœdema had been reduced so far that the patient's previous good looks had been restored. Such results justified the persistent use of the drug for a long time, especially as no discomfort was produced by it.

Dr. WHIPHAM had used various means of exciting the action of the skin, and had obtained some success with hot-air baths, but he had found that gradually increasing doses of pilocarpin (one-twelfth to a quarter of a grain) afforded very marked relief; but relapse took place when the drug was discontinued. Its use had generally been attended with headache; but this was borne for the sake of the relief afforded to the more serious symptoms.

Dr. DOUGLAS POWELL inquired what had been the results produced by jaborandi and pilocarpin upon the quantity of urine secreted. In his own cases he had found that the kidneys were more freely acted upon than the skin.

The PRESIDENT referred to a case seen by him in apparently good health two days previously, which had been regarded as hopeless four years ago. He had seen other cases in which continued improvement had taken place without treatment of any kind.

Dr. DUCKWORTH thought that it would lead to a better knowledge of the disease if all the surgeons who had performed extirpation of the thyroid would make inquiry into the subsequent history of their cases. He was convinced that there must be very many surgeons scattered through the country who had performed the operation and could supply the needed information.

The PRESIDENT summed up the results of the debate. He thought that whilst it had added to our knowledge of myxœdema it had led us back to the position originally taken by Sir W. Gull as to the nature of the disease. Our present knowledge of its causation was defective, and he considered that the time had now arrived when a commission should be appointed to institute closer inquiries into it. He did not propose to take any immediate action in the



matter, but thought that the subject should be taken into consideration by the members of the Society.

Sir W. GULL suggested that the patient shown by Dr. Drewitt should be treated with jaborandi for a few months, and the result observed.

Living specimens were shown—by Mr. BARWELL, of Hypertrophy of the Right Arm and Leg in a girl aged six; by Mr. BARKER, of Arrested Development of the Right Half of the Body, with Paralysis of the Right Half of the Face, in an infant; by Dr. DREWITT, of Myxœdema in a woman; by Mr. MANSELL-MOULLIN, of Thrombus of the Inferior Vena Cava; by Mr. PEARCE GOULD, of Progressive Arteritis in a young man.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 27.

JOHN MARSHALL, F.R.S., President, in the Chair.

### INVESTIGATIONS INTO THE ACTION OF THE DIGITALIS GROUP.

A CONSIDERABLE number of Fellows and visitors assembled to hear read a paper detailing some investigations into the action of the digitalis group by Drs. SYDNEY RINGER and HARRINGTON SAINSBURY. The following is an abstract:—Digitalis is taken as the type of a group of drugs whose influence is exerted mainly on the circulatory system. The facts of chief importance in this action are:—1. The arrest of the heart in systole (if the dose be sufficiently large). 2. The raised blood-pressure which obtains throughout till close upon the final systolic arrest. Whilst the spasm of the heart is universally recognised as the result of the digitalis action, and as caused by direct action of the drug on the cardiac tissue, there is doubt both as to the condition of the arterioles under the influence of the drug, and as to whether the influence be direct or indirect. Digitalis action upon the heart may be thus defined as *the production of continuous spasm of the heart-muscle by direct action of the drug on this tissue*. It is pointed out that this spasm must not be of the nature of a tetanus, i.e., of a fusion of adjacent beats; and further, that it may affect either the whole heart or a limited portion of the same, according as the drug is applied to the whole heart or to a limited portion. Thus defined, the already very large group of bodies classed by Schmiedeberg under the heading digitalis becomes yet larger, and will include, amongst others, the caustic alkalies and barium salts. Experiments are recorded in which an artificial saline solution was circulated through the vessels of the hinder extremities of a tortoise whose brain and spinal cord had been completely destroyed. The experiments were so arranged that the rate of flow could be measured, and so soon as a uniform rate of flow had been established the drug was added to the circulating fluid. The results obtained with digitalis were both uniform and striking; invariably, on the addition of the drug, the circulation became slowed, even to the extent of almost complete stasis. Similar experiments were made with the following members of the digitalis group: strophanthus, dyak poison, convallamarin, and scillitine. In the case of each of these drugs evidence of constriction of the vessels was obtained in the shape of a slowed circulation-rate. Digitaline, however, ranked as by far the most active of the above. Similar experiments were made with hydrate of potassium, and with the carbonates of potassium and sodium, and sodium bicarbonate, which, with the exception of the latter, gave like evidence of constriction of the arterioles. Experiments carried on simultaneously with the above on the excised frog's heart showed, in the case of each of the above drugs, the production of more or less persistent spasm, with the notable exception, however, of sodium bicarbonate, which gave none. Experiments then followed, which sought to determine whether the calibre of the vessels, in addition to being directly influenced by these drugs, could be affected by them through the nerves. Digitaline was alone experimented with. The results were purely negative. Finally, to meet the suggestion as to the action of the drugs on the skeletal muscles, experiments were made with frogs, given quantities of solutions of digitaline, strophanthus, dyak, scillitine, barium chloride, and caustic

potash and soda being injected. The results showed the first five to be notable muscle-poisons, the muscles rapidly dying and losing their excitability; indeed, even before the death of the animal a very marked diminution of muscular irritability was in several cases observed. Comparing the actions among each other, it was noted that strophanthus and dyak poisons acted much more powerfully on the skeletal muscles than did digitaline. To sum up, the argument, briefly stated, is as follows:—Starting from the systolic digitalis heart, which is admittedly a result of direct action of the drug on the cardiac muscle, we have found:—1. That for the other members of the digitalis group here examined a like action obtains. 2. We have suggested that the local action on the heart may serve as the definition of *digitalis action*; this accepted, we have pointed out that Schmiedeberg's already large group must be still further enlarged. 3. Arguing from this action on the muscular tissue of the heart, we have inferred that the action on the muscular tissue of the arterioles will be similar—an inference verified by actual experiment. 4. So far as our experiments go, we do not find that these drugs influence the calibre of the vessels indirectly through the nervous system. 5. We have pointed out that many of the digitalis group are notable muscle-poisons, and that the tissue of the heart, standing functionally midway between the striped and unstriped muscular tissues, may permit of the inference that a marked action of the drug on the tone of the heart would indicate a similar effect on the tone of the vessels, whereas a marked action on the cardiac beat would indicate like action on the skeletal muscles.

The PRESIDENT congratulated the authors on their valuable paper. It afforded an admirable example of the method in which experimentation should be carried on, by able and practised hands, and without waste of animal life. He thought the results obtained could hardly have been got in any other way, and he invited discussion from those specialists who were present.

Dr. LAUDER BRUNTON had listened with great pleasure to the remarks. He agreed with the authors in most of their conclusions, but differed in a few; to these he would briefly advert. He disapproved of grouping these cases together, for the substances so grouped were not at all alike in many of their chief actions. If we were to group together all those substances which produced narrowing of the arterioles, we should have to include half the Pharmacopœia; for—in addition to barium—strontium, aluminium, manganese, platinum, etc., all caused contraction of the bloodvessels (i.e., of the involuntary muscular fibre), though not to the same extent. He thought rather that we should group only those the sum total of whose action was identical. As regarded the action of digitaline on the voluntary muscles it varied not only with the species or genus, but with the individual; and we knew also that the same differences were observable in our patients. He personally did not regard digitaline as a marked muscular poison compared with many others, though, in some experiments which he had made years ago, he had found distinct differences in different species of animals, as also with caffeine. He did not think it wise to draw conclusions as to the action of these drugs on the skeletal muscles from their action on the involuntary muscles.

Dr. JOHN HARLEY did not wish to be hypercritical, yet he could not but feel that a huge fallacy underlay the whole of the experiments. The results were drawn from the effect of certain drugs on animals whose spinal cord (and, consequently, sympathetic nerve) was cut off from the parts experimented upon. The tables showed a constant declension of circulatory power, such as one would naturally expect from an animal in a slowly dying condition; and hence they could have no specific value as to the action of the drugs which had been used. Further, it was not wise to argue from these experiments that such-and-such an action would follow on the administration of these drugs to healthy, warm-blooded animals under ordinary conditions of life. The authors, as also Dr. Brunton, appeared to have assumed that these drugs acted directly on the muscular fibres of the vessels, but he submitted there was no proof that any drug could so act. He thought all such actions were brought about through the sympathetic nervous system. A vast amount of time, talent, and ingenuity was being wasted which might be otherwise and usefully expended.

Dr. BROADBENT said he was sophisticated or unsophisti-



cated enough to accept the results of these experiments as conclusive and of great value. It was not as if they stood alone; on the other hand, they confirmed and amplified many others. He thought there was now evidence enough that the digitalis group did act as the authors had suggested. It was a matter of first importance for physicians to have such results to rely upon. He hoped in time that, as a result of careful work such as this, the science of therapeutics would be placed on the same level as other sciences. He thought that the organic remedies did not act by simple contact with the vessel-wall, but that the effect produced was due to some dynamic action on the part, and that there was a radical difference between the action of alkalies and salines, and such drugs as the digitalis group.

Dr. BERNARD O'CONNOR inquired as to the part played by the ganglia in the heart-muscle round about the base.

The PRESIDENT asked for the authors' views as to the influence of the muscular paralysis (due to section of the cord) on the arteries.

Dr. RINGER replied: He quite agreed as to the differences between the various substances included in their group, but they had themselves remarked on them in the paper. Of all the drugs he knew, digitaline was one about the action of which he thought there could not be much doubt—it strengthened the heart, it slowed the action, it regulated the beat, and it tightened the arteries. As regarded its action on the heart-muscle, it was well known, he said, that if applied locally to a bit of the muscle in which there were no ganglia it caused contraction, thus showing that the pneumogastric nerve and ganglia were not concerned.

FOUR CASES OF CONGENITAL DISLOCATION OF HIPS.

Mr. GEORGE COWELL showed four cases of so-called congenital dislocation of the hip, occurring in four little girls, each of whom presented the typical symptoms of this deformity, now well recognised clinically, though its exact pathology remains obscure. He pointed out as the main symptoms—lordosis, with corresponding prominence of the abdomen; an altered relation in the level of the great trochanter, which rose as high as the anterior-superior spine of the ilium; flattening of the nates; and a peculiar gait, which in well-marked cases was a decided waddle. The children had considerable power over the limbs, and their progression was little, if at all, impeded. It was remarkable that the defect occurred in girls chiefly, almost in the proportion of three to one. The general health was excellent.

Owing to the lateness of the hour these cases could not be properly discussed. Mr. WILLIAM ADAMS and Mr. BARKER spoke.

The Society then adjourned.

INVENTIONS AND IMPROVEMENTS.

WALTHAM BROTHERS' "S.N." STOUT.

STOUT, as an article of diet, as an aid to digestion, and in a certain degree as a tonic, is in some cases distinctly indicated. In other cases there are, of course, contra-indications against its use; but it is probable that the prejudice even against the heavier malt liquors has of late years been somewhat exaggerated. Most practitioners will, at any rate, admit that many nursing mothers would fare but badly without the support and nourishment afforded by a sound stout. In these and other cases Waltham's stout would appear to answer every requirement. It professes to be brewed entirely from the finest malt and hops, and it is certainly a rich, agreeable, and clean-tasting beverage, free from the sickly flavour which occasionally renders commoner samples of stout unsatisfactory both to the palate and the stomach.

SCARLET FEVER IN HORSES.—Dr. John C. Peters, of New York, lecturing recently at the Columbia Veterinary College in that city, stated that he had discovered the existence of scarlet fever in horses, at the same time adducing many facts in support of his theory. Grooms, he said, rarely contracted the fever, because they had almost invariably suffered from it in a mild form when young. Dr. Peters expressed it as his opinion therefore that the day would come when equine virus would be used for the inoculation of human subjects as an antidote to that disease.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 24, 1883.

BIRTHS.

Births of Boys, 1310; Girls, 1172; Total, 2482.  
Corrected weekly average in the 10 years 1873-82, 2645·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ... ..	834	836	1670
Weekly average of the ten years 1873-82, } corrected to increased population ...	902·5	873·5	1776·0
Deaths of people aged 80 and upwards ...	...	...	64

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ... ..	669633	1	6	6	2	4	...	8	...	6
North ... ..	905947	...	8	8	9	10	...	3	...	2
Central ... ..	282238	...	1	5	2	...	...	4	2	1
East ... ..	692738	...	8	13	1	6	...	8	...	2
South ... ..	1265927	...	26	9	7	9	1	9	...	6
Total ... ..	3816483	1	49	41	21	29	1	32	2	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ..	...	...	...	...	...	29·666 in.
Mean temperature ... ..	...	...	...	...	...	43·9°
Highest point of thermometer ... ..	...	...	...	...	...	52·1°
Lowest point of thermometer ... ..	...	...	...	...	...	33·8°
Mean dew-point temperature ... ..	...	...	...	...	...	36·0°
General direction of wind ... ..	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·71 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 24, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Nov. 24.	Deaths Registered during the week ending Nov. 24.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ... ..	3955814	2482	1670	22·0	52·1	33·8	43·9	6·61	0·71	1·80
Brighton ... ..	111262	58	36	16·9	52·0	34·0	44·1	6·73	1·32	3·35
Portsmouth ... ..	131478	92	51	20·2	...	...	...	...	...	...
Norwich ... ..	89612	55	35	20·4	...	...	...	...	...	...
Plymouth ... ..	74977	32	26	18·1	54·0	37·0	45·9	7·72	1·13	2·87
Bristol ... ..	212779	149	93	22·8	53·0	35·0	43·3	6·28	2·36	5·99
Wolverhampton ...	77557	51	28	18·8	47·5	28·9	38·2	3·44	0·69	1·75
Birmingham ... ..	414846	287	162	20·4	...	...	...	...	...	...
Leicester ... ..	129483	76	51	20·5	50·2	32·5	40·5	4·72	0·62	1·57
Nottingham ... ..	199349	164	85	22·2	49·3	30·0	39·1	3·95	1·27	3·23
Derby ... ..	85574	49	25	15·2	...	...	...	...	...	...
Birkenhead ... ..	89700	54	40	23·5	...	...	...	...	...	...
Liverpool ... ..	566753	350	262	24·1	52·1	37·5	44·0	6·67	0·54	1·37
Bolton ... ..	107862	64	48	23·2	46·8	32·6	39·0	3·89	1·09	2·77
Manchester ... ..	339252	236	206	31·7	...	...	...	...	...	...
Salford ... ..	190465	110	103	28·2	...	...	...	...	...	...
Oldham ... ..	119071	57	57	25·0	...	...	...	...	...	...
Blackburn ... ..	103460	67	50	24·1	...	...	...	...	...	...
Preston ... ..	98564	72	47	24·9	46·0	35·0	41·2	5·11	0·98	2·49
Huddersfield ... ..	84701	53	36	22·2	...	...	...	...	...	...
Halifax ... ..	75591	32	35	24·2	...	...	...	...	...	...
Bradford ... ..	204807	103	71	18·1	45·6	34·6	40·7	4·83	1·04	2·64
Leeds ... ..	321611	163	153	24·8	49·0	35·0	41·4	5·22	0·79	2·01
Sheffield ... ..	295497	188	143	25·3	47·5	35·0	40·7	4·83	1·10	2·79
Hull ... ..	176296	118	69	20·4	47·0	30·0	38·9	3·83	0·40	1·02
Sunderland ... ..	121117	113	45	19·4	...	...	...	...	...	...
Newcastle ... ..	149464	95	77	26·9	...	...	...	...	...	...
Cardiff ... ..	90033	68	44	25·5	...	...	...	...	...	...
For 28 towns ... ..	5620975	5438	3748	22·7	54·0	28·9	41·5	5·23	1·00	2·54
Edinburgh ... ..	235946	142	115	25·4	48·2	32·7	38·5	3·61	1·45	3·68
Glasgow ... ..	515589	361	289	23·2	49·5	29·5	40·0	4·44	2·07	5·26
Dublin ... ..	349385	160	221	33·0	55·1	32·0	40·9	4·94	1·09	2·77

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·67 in. ; the highest reading was 29·88 in. on Tuesday evening, and the lowest 29·28 in. at the end of the week.



## MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 22 :—

Foley, Charles Nicholas, Denbigh-place, S.W.  
 Hehir, Patrick, London-street, Paddington.  
 Smith, Edward John, Charing-cross Hospital.

The following gentleman also on the same day passed the Primary Professional Examination :—

Loftus, Arthur Smith, Charing-cross Hospital.

## APPOINTMENTS.

- BURKE, HUBERT W., L.R.C.S., L.R.C.P.**—Resident Medical Officer at St. George's Retreat, Burgess Hill, Sussex.  
**CAIGER, F. F., M.B., M.R.C.S.**—Assistant House-Surgeon to St. Thomas's Hospital.  
**CHAFFEY, WAYLAND C., M.B. Lond., L.R.C.P. Lond., M.R.C.S. Eng.**—Medical Registrar to the Hospital for Sick Children, Great Ormond-street.  
**COOPER, G. F., M.R.C.S., L.R.C.P.**—House-Surgeon to St. Thomas's Hospital.  
**FOXWELL, A., M.B., L.R.C.P.**—House-Physician to St. Thomas's Hospital.  
**GREEN, C. D., M.R.C.S., L.R.C.P.**—Assistant House-Physician to St. Thomas's Hospital.  
**JONES, W. WANSBROUGH, M.B., M.R.C.S.**—House-Surgeon to St. Thomas's Hospital.  
**LIGHTFOOT, CHARLES LEWIS, M.B., C.M.**—House-Surgeon to the North Riding Infirmary, *vice* — Bateman, resigned.  
**MARLOW, F. W., M.R.C.S., L.S.A.**—Ophthalmic Assistant to St. Thomas's Hospital.  
**MILTON, H., M.R.C.S., L.S.A.**—House-Physician to St. Thomas's Hospital.  
**ORFORD, JOHN, M.R.C.S., L.R.C.P.**—Non-Resident House-Physician to St. Thomas's Hospital.  
**OWEN, EDMUND, M.B. Lond., F.R.C.S. Eng.**—Surgeon to the Hospital for Sick Children, Great Ormond-street.  
**SHEPPARD, W. J., M.B., M.S., L.R.C.P.**—Resident Accoucheur at St. Thomas's Hospital.  
**UNDERWOOD, ARTHUR, M.R.C.S., L.D.S.**—Lecturer on Dental Anatomy and Physiology in the Medical School attached to the Dental Hospital, *vice* Charles S. Tomes, F.R.S., F.R.C.S., resigned.

## DEATHS.

- CROMBIE, JOHN M., M.A., M.D.**, at 1, Oakley-square, N.W., on November 26, aged 39.  
**GREAVES, WILLIAM THOMAS, M.R.C.S.**, at Brighton, on November 23, in his 75th year.  
**HASTINGS, RICHARD LEDSHAM, M.R.C.S.**, at the Abbey Green, Chester, on November 25, aged 85.  
**JOYNT, FRANCIS GEORGE, Surgeon-General I.M.D. (retired)**, at Eastburn, Dawlish-road, Teignmouth, Devon, on November 24.  
**LEARMONTH.**—On the 28th inst., at White Rock, Hastings, from typhoid fever, Eliza Learmonth, of the North-West London Hospital, Kentish Town, the beloved daughter of Olivia and the late William Learmonth. —R.I.P.  
**LESLIE, LOUIS, M.D.**, at Amery House, Alton, Hants, on November 25, aged 61.  
**PEARSON, GEORGE, M.D.**, at Lincoln House, St. John's Wood, on November 25.  
**TARRAL, NICOLAS, M.D., F.R.C.S.**, at Havre, France, on November 26, in his 73rd year.  
**WILLIAMS, J., M.R.C.S.**, late Madras Army, at Ryde, I.W., on November 19, aged 86.

## VACANCIES.

- ADDENBROOKE'S HOSPITAL, CAMBRIDGE.**—House-Surgeon. (*For particulars see Advertisement.*)  
**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.**—Assistant-Physician. Applications, with testimonials, to be forwarded to the office, 24, Finsbury-circus, E.C., on or before December 17. Further information can be obtained from the Medical Officers or Secretary.  
**CLAYTON HOSPITAL, WAKEFIELD, GENERAL DISPENSARY.**—House-Surgeon. Salary £120 per annum, with residence at the Hospital, attendance, coal, and gas. Candidates must be duly registered in medicine and surgery under the Medical Act, and unmarried. Applications, with testimonials, to be sent to John Binks, Honorary Secretary, on or before December 3.  
**COTON HILL LUNATIC HOSPITAL, STAFFORD.**—Resident Medical Superintendent. (*For particulars see Advertisement.*)  
**GESTO HOSPITAL, EDINBURGH, SKYE.**—Resident Medical Officer. Salary £275, with furnished house, fire and light, etc. Applications, with copies of testimonials, to be sent to J. MacLennan, solicitor, Portree, on or before December 1.  
**HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.**—Assistant-Surgeon. (*For particulars see Advertisement.*)  
**NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, MOUNT VERNON, HAMPSTEAD, N.W.**—Resident Medical Officer and Registrar. (*For particulars see Advertisement.*)  
**ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.**—Assistant-Surgeon. (*For particulars see Advertisement.*)

**ROYAL PIMLICO DISPENSARY, 104, BUCKINGHAM PALACE-ROAD, S.W.**—Medical Officer. Candidates must reside in the district. Applications and testimonials to be forwarded on or before December 3.

**ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.**—House-Surgeon. Salary £100 per annum, with board and residence. Candidates must be graduates of a university, or members of a college of surgeons of the United Kingdom, registered, and unmarried. Applications, with testimonials, etc., to be addressed to the Chairman of the Committee, Vicarage, Portsmouth, on or before December 5.

**UNIVERSITY OF EDINBURGH: DEPARTMENT OF MEDICAL JURISPRUDENCE.**—Examiner in Medicine. (*For particulars see Advertisement.*)

**VICTORIA HOSPITAL FOR CHILDREN, QUEEN'S-ROAD, CHELSEA, S.W.**—Assistant-Physician. Candidates must be graduates in medicine of a university recognised by the Medical Council, and not practising pharmacy. Applications, with copies of testimonials, to be sent to the Secretary, at the Hospital, on or before December 10.

**VICTORIA HOSPITAL FOR CHILDREN, QUEEN'S-ROAD, CHELSEA, S.W.**—House-Surgeon. An honorarium of £50 per annum, with board and lodging in the Hospital. Candidates must be Fellows or Members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries or of the Royal College of Physicians, or graduates in medicine of any university recognised by the Medical Council. Applications, with testimonials, etc., to be sent to the Secretary, at the Hospital, on or before December 10.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

**Alton Union.**—Mr. Arthur Curtis has resigned the Second District: area 19,888; population 4803; salary £110 per annum.

**Davenry Union.**—Mr. Frederick Gustavus Fowke has resigned the Fifth District: area 11,067; population 1923; salary £42 10s. per annum.

**Halifax Union.**—The office of Medical Officer for the Ovenden District is vacant by the death of Mr. James Steele: area 5170; population 12,873; salary £30 per annum.

**Halstead Union.**—Mr. James Hinds has resigned the Workhouse and First Division of First District: salary for Workhouse £40 per annum; area of District 9039; population 7575; salary £50 per annum.

**Houghton-le-Spring Union.**—The office of Medical Officer for the Rainton District is vacant: area 3622; population 5499; salary £25 per annum.

**Hoane Union.**—Mr. G. W. Pretty has resigned the Fressingfield District: area 12,736; population 2999; salary £80 13s. per annum.

**West Derby Union.**—Mr. Rowland Owen has resigned the office of Assistant Medical Officer at the Workhouse: salary £100 per annum.

**Wolverhampton Union.**—Mr. J. W. Scott has resigned the Third District: area 1075; population 27,538; salary £115 per annum.

## APPOINTMENTS.

**Alton Union.**—Edward J. L. Leslie, L.R.C.P. Edin., L.R.C.S. Edin., to the First District.

**Catherington Union.**—Robert G. Strong, L.R.C.P., L.R.C.S. Edin., for the Union and Workhouse.

**Dore Union.**—Thomas R. Atkinson, M.R.C.S. Eng., L.S.A., to the Madley District.

**Dorking Union.**—William Lascelles Batson, M.R.C.S. Eng. and L.R.C.P. Lond., to the Workhouse and the Middle District.

**Haverfordwest Union.**—John H. H. Williams, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Haverfordwest District and the Workhouse.

**Hinckley Union.**—Ernest J. Pritchard, M.B., C.M. Glasg., L.S.A., to the Stoke Golding District.

**Holsworthy Union.**—Henry H. Paisloe, M.R.C.S. Eng., L.R.C.P. Edin., to the Second District.

**Isle of Wight Union.**—Alfred Woodward, M.R.C.S. Eng., L.S.A., to the Ryde District.

**Nantwich Union.**—James Atkinson, M.R.C.S. Eng., L.R.C.P. Edin., to the Crewe District.

**Pembroke Union.**—Arthur G. R. Harris, L.R.C.P. Lond., M.R.C.S. Eng., to the First District.

**Saffron Walden Union.**—Henry St. George Boswell, M.B. and C.M. Edin., to the Seventh District.

**Wakefield Union.**—James Howard, M.R.C.S. Eng., L.K. & Q.C.P. Ire., to the Altofts District; William Roulston, M.D., M.C. Queen's Univ., Ire., to the Crofton District.

**THE FRENCH HOSPITAL.**—M. Waddington will preside at the next annual dinner, to be held at Willis's Rooms on February 2, in aid of the funds of the French Hospital in London.

**THE ABERDEEN STUDENTS AND EXAMINATIONS IN PATHOLOGY.**—At a meeting of the University Court, held on the 20th ult., an appeal was made, by medical students attending the University, against a decision of the Senatus with reference to examination in pathology. The students enrolled prior to the foundation of the Erasmus Wilson Chair of Pathology objected to a special examination in pathology being forced upon them, and maintained that they were entitled to graduate under the system in force at the dates when they severally began their medical studies at the University. Principal Pirie moved that the appeal be dismissed; and an amendment, proposed by Dr. Webster, that it be sustained, received an equal number of votes—namely, three. The casting vote of the Lord Rector was, however, given in favour of the amendment, which was declared carried. We congratulate the students on the success of their rather short-sighted policy.



**INDIAN MEDICAL SERVICE.**—The Queen has approved the admission of the undermentioned surgeons to Her Majesty's Indian Medical Service:—To be Surgeons: Bengal—John More Young and Granville Jameson. Madras—Arthur Owen Evans. Bombay—Mackintosh Alexander Thomas Collie and William Henry Quicke.

**SMALL-POX IN SOUTH AFRICA.**—A great difference of opinion exists among the doctors at the diamond-fields as to the nature of the disease which has recently broken out there, and which has been supposed to be small-pox. It appears, however, tolerably certain now that the disease is not small-pox, but an aggravated form of varicella, which has before given rise to needless alarms.

**ALLEGED DEATH FROM OVERWORK AT SCHOOL.**—At a meeting of the Bacup Town Council, this week, Dr. Brown, the medical officer, said it had been reported to him that a girl, aged seven, had recently died from inflammation of the brain, brought on by overwork at school. The medical officer strongly condemned the practice of making young children do home lessons at night. He said it worried them and made them restless in their sleep. Education, he said, was often pushed to such an extent nowadays that childhood was robbed of all its happiness and joyousness. It tended to physical and mental deterioration.

**WESTMINSTER HOSPITAL.**—The authorities of the Westminster Hospital are about to issue a special appeal for funds to assist them in carrying out the urgently needed improvements in the out-patient departments, and in erecting a new medical school. A site has been secured for the latter in Caxton-street; and as next year it will be just fifty years since the school was founded, the present is a very auspicious time for making this new effort. When the new school is built, the premises at present occupied for teaching will be available for the improvements in the out-patient departments. It is estimated that £12,500 will be required to complete the whole scheme.

**SURGEON-MAJOR ROSENBERG.**—Surgeon-Major Rosenberg, who formed one of the unfortunate staff of Hicks Pasha, was a Jewish convert who was educated at the expense of the Free Church in Scotland to take part in the foreign mission of that denomination to the Jews in the East. He studied medicine at the University of Edinburgh, was a very expert anatomist, and a favourite pupil of Mr. Joseph Bell. On completing his studies he resisted strong pressure to start practice in this country, and resolved to fulfil the engagement he had entered into with the Free Church. In due course he went out to the Jewish Mission of the Church at Constantinople, but ultimately he disagreed with the Principal of the Mission, and left it for Egypt.

**CANTOR LECTURES.**—The first course of Cantor Lectures, at the Society of Arts, will commence on Monday next, and the subject will be "The Scientific Basis of Cookery," by W. Mattieu Williams, F.C.S. The introductory lecture will treat of modes of applying heat; radiation, conduction, and convection; roasting, grilling, baking, boiling, and stewing. The second lecture will deal with the constituents of flesh; the action of heat on albumen, gelatine, fibrin, etc.; exosmosis and endosmosis as operating in the kitchen; maceration; caseine; the cookery of cheese and its nutritive value; milk, butter, and "bosh." In the third and concluding lecture will be considered the nutritive constituents of vegetables; the changes effected by cookery on vegetable substances, etc. The lectures will be illustrated by a selected exhibition of cooking apparatus and appliances.

**"TINNED" FOODS.**—We have received a communication from Messrs. Lazenby and Sons, giving the results of Prof. Attfield's analysis of sixteen samples of their "canned" foods, the main result being, that salmon, lobsters, sardines, potted beef, potted tongue, and similar matters were free from tin, while bloater-paste, apricots, pears, tomatoes, and peaches contained minute quantities of tin, varying from .008 grain to .023 grain per pound. Such small quantities could have no influence on the health of the consumer; nevertheless, so far as the research goes, it is only an additional proof that acid fruits dissolve small but estimable portions of tin. In a special report to the manufacturers Dr. Attfield goes so far as to say that "canned foods are as harmless as uncanned foods, I can and do professionally certify"!

**ST. JOHN AMBULANCE ASSOCIATION.**—A horse ambulance carriage has just been presented to the Association by a member of the Committee. This vehicle was designed by Mr. John Furley, deputy chairman. It will carry three patients on stretchers, and two persons seated as well as two on the box. The mode of putting the stretchers into the carriage is entirely novel. The carriage is constructed of English and American ash, with a roof of the best pine, the wheels being of English oak and ash. It has sliding plate-glass windows, framed in mahogany, and set in borders of walnut-wood. The fittings are very complete, and include a small chest for hospital comforts. This carriage is intended for use in the streets of London.

**THE INTERNATIONAL HEALTH EXHIBITION.**—The preliminary arrangements for holding the International Health Exhibition are now completed. Her Majesty has consented to be the Patron, and the Prince of Wales is President and Chairman of the General Committee. The Executive Council are as follows:—Chairman: The Duke of Buckingham and Chandos. Vice-Chairman: Sir James Paget, F.R.S., Mr. Edward Birkbeck, M.P., George Buchanan, M.D., Sir F. Philip Cunliffe-Owen, K.C.M.G., Sir Joseph Fayrer, K.C.S.I., the Marquis of Hamilton, Mr. Ernest Hart, Sir John Lubbock, M.P., Mr. Samuel Morley, M.P., G. V. Poore, M.D., Sir John Rose. Secretary: Mr. Edward Cunliffe-Owen. The prospectus sets forth as the object of the Exhibition the illustration, in as vivid and practical a manner as possible, of food, dress, the dwelling, the school, and the workshop, as affecting the conditions of healthful life; and also the bringing into public notice the most recent appliances for elementary school teaching and instruction in applied science, art, and handicrafts.

## NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.—Bacon.*

### THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—G. P. Field, Esq., £1 1s.; G. Gregson, Esq., £1 1s.; W. G. Marshall, Esq., £1; Percy May, Esq., £1 1s.; Edmund Owen, Esq., £1 1s.; Dr. Ridsdale, £1 1s.; S. Sibley, Esq., £2 2s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

### THE ROGERS TESTIMONIAL.

The following is the fifth list of subscriptions:—Dr. Gramshaw, Gravesend, £1 1s.; Jas. Crocker, Esq., Budgley, 5s.; J. B. Bromley, Esq., Castle Headington, £1 1s.; J. Sadd, Esq., Rugby, £1 1s.; Dr. Woodhouse, Hertford, 10s. 6d.; Dr. Young, Aldershot, £1 1s.; B. D. Taplin, Esq., Market Rasen, £1 1s.; T. Taylor, Esq., Bocking, £1 1s.; Dr. Matcham, Southwark, £1 1s.; G. Evans, Esq., Bridport, 10s. 6d.; W. Martin, Esq., F.R.C.S., Walkden, 10s.; R. Fothergill, Esq., Bedale, York-hire, 10s. 6d.; G. T. Willan, Esq., Melton Mowbray, 10s. 6d.; A. B. Simpson, Esq., Birmingham, £1 1s.; Jas. Crisp, Esq., Lacock, 10s. 6d.; J. Odell, Esq., Hertford, £1 1s.; Dr. Collyer, Enfield, 10s. 6d.; R. Davison, Esq., Newburn-on-Tyne, £1 1s.; T. H. Steele, Esq., Abergavenny, 10s.; J. Vallance, Esq., Stratford, Essex, £1 1s.; E. Marshall, Esq., Mitcham, £1 1s.; C. Macnamara, Esq., Grosvenor-street, £1 1s.; Dr. Grove, St. Ives, 10s.; M. Balding, Esq., St. Albans, 10s. 6d.; A. Roper, Esq., Croydon, £1 1s.; Dr. Woodward, Worcester, £1 1s.; Dr. Pitt, St. George's-in-the-East, £1 1s.; Dr. Pearse, Botesdale, 5s.; Dr. Walford, Reading, 5s.; E. Young, Esq., Steyning, Sussex, £1 1s.; Fairlie Clarke, Esq., Southborough, £1 1s.; H. E. Norris, Esq., Sidmouth, £1 1s.; Dr. Orton, Crouch End, £1 1s.; W. G. Marshall, Esq., F.R.C.S., Colney Hatch, £1; Dr. J. Watson, Ardwick, 10s. 6d.; H. Stear, Esq., Saffron Walden, 10s. 6d.; Dr. John Thompson, Bideford, £1 1s.; Francis Vacher, Esq., F.R.C.S., Birkenhead, £1 1s.; Dr. W. Wyke Smith, Wimborne, 10s.; Lancelot Newton, Esq., Alconbury Hill, £1 1s.

Dr. Newton Mudge, New South Wales.—Letter and enclosure received with thanks.

**Royal College of Surgeons.**—At the half-yearly examination for the Fellowship of this institution, which has just been brought to a close, the following were the questions on Pathology, Therapeutics, and Surgery submitted to the candidates on Thursday, the 22nd ult., when they were required to answer the four questions, between 1.30 and 5.30 p.m., viz.:—1. Describe the immediate and remote effects of severe injuries of nerves. 2. State what you know of the causes of venous thrombosis. Describe the changes which the clot may undergo, and the consequent course of the affection. 3. Enumerate the various forms of loose bodies met with in joints. Describe their pathology. 4. Discuss the differential diagnosis of the various forms of internal intestinal obstruction, and the treatment suitable to each. (The names of the successful candidates cannot be published until after the next meeting of the Council.)



*Bathing in the River Avon.*—The Town Council of Warwick has decided to serve notices under the Rivers' Pollution Act upon the Local Board of Kenilworth and the Town Councils of Leamington and Coventry for polluting this river. Dr. Tibbits reports that the river was no longer safe as a bathing-place owing to the tons of refuse discharged into it, which converted the bed of sand into a bed of sewage. Our sanitary authorities are so frequently disposed, from personal motives and interests, to allow the existence of sources of contamination, that it is satisfactory to see the Rivers' Pollution Act put in force.

*Suburban Jerry Buildings.*—Kilburn would appear to be a somewhat favourite spot of the speculative builder's. "Jerry building" cases are by no means few or far between, which are brought thence to the police-court. A recent instance of the kind was that of a builder, of Salusbury-road, Kilburn, who was prosecuted for using material contrary to the requirements of the law. The defendant had been cautioned several times against using defective mortar, and, in consequence, the magistrate was asked to strengthen the hands of the Local Board by inflicting such exemplary punishment as would be likely to check "jerry building." The penalty fixed for the offence was £5, with power also to impose a fine of forty shillings per day in addition when it was shown that the offence was continued after service of a notice. A fine of £5 was imposed, and a further penalty of forty shillings a day for three days.

*Escaping Vaccination.*—It appears that the proportion of children escaping the operation of vaccination is very much greater in the parish of Chelsea than in other parishes, having due regard to the relative size and population. The Local Government Board have exhibited commendable vigilance in such cases as this, and we are glad to perceive they have forwarded a complaint to the Board of Guardians on the subject. The Clerk assigns various causes for the default, but which chiefly arise from what may be called a "migratory population." Moreover, neighbours were generally in collusion with the persons who evaded the requirements of the law, and very little information consequently was to be obtained as to removals. The sending out vaccination notices within one month after registration of birth, instead of after three months, had resulted in a great improvement in the vaccination returns—a system which might be advantageously pursued generally.

*The Poison of the Indian Cobra.*—Dr. Nicholson, who writes in the *Academy*, *à propos* of the recent book by Dr. Wall, thinks that the researches of Indian medical officers on this special subject have not been of much use, "except so far as one experimentalist may upset the results of another, and expose the worthlessness of the antidote which already claims public gratitude." The writer further suggests that some fatalities said to be due to poisonous snakes are really attributable to other causes, and that the sins of mankind are, at times, conveniently laid upon the "creeping things after their kind." He enforces this theory by the fact that in Bengal, the province where the mortality from snake-bite is the largest, more women than men are killed. "It is singular," he adds, "that the mortality from this cause should be very largely in proportion to the Hinduism of the people—to the ascendancy of caste in the various parts of India,—and that it seems to be least where venomous snakes swarm most, and where people live under conditions of life most favourable to meeting with snakes."

*J. G. Kiernan.*—We have not at present a correspondent in your city.

#### COMMUNICATIONS have been received from—

Mr. NOBLE SMITH, London; MESSRS. LETTS AND SON, London; Mr. NELSON HARDY, Dulwich; Mr. L. M. GRIFFITHS, Bristol; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE SECRETARY OF THE PARKES MUSEUM, London; Dr. W. ALEXANDER, Liverpool; THE REGISTRAR OF THE UNIVERSITY OF CAMBRIDGE; Dr. J. T. W. BACOT, Seaton; Mr. T. J. BARNARD, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. W. BLYTH, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF CHARING-CROSS HOSPITAL, London; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY, London; THE HON. SECRETARIES OF THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; Mr. T. M. STONE, Wimbledon; Dr. KELLY, Bermondsey; THE SECRETARY OF THE WESTMINSTER HOSPITAL, London; Dr. R. NEALE, London; Mr. E. C. BAKER, Brighton; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE SECRETARY OF THE ST. JOHN AMBULANCE ASSOCIATION, London; Dr. J. W. MOORE, Dublin; Dr. WOLFENDEN, London; MESSRS. LAZENBY AND SONS, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE OBSTETRICAL SOCIETY OF LONDON; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. JOHN MARSHALL, F.R.S., London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; THE SECRETARY OF THE COLLEGE OF PRACTICAL ENGINEERING, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. WICKHAM BARNES, London; Dr. JULIUS ALTHAUS, London; THE EDITOR OF THE "JOURNAL OF EDUCATION," London; THE SECRETARY OF THE SOCIETY OF ARTS, London; THE HON. SECRETARY OF THE BREAD REFORM LEAGUE, London.

#### BOOKS, ETC., RECEIVED—

The Essentials of Pathology, by D. Tod Gilliam, M.D.—A Compend of Surgery, by Orville Horwitz, B.S., M.D.—Electro-Therapeutics, by Dr. Wilhelm Erb—Diseases of Children, by Dr. Edward Henoch—The Roller Bandage, by W. B. Hopkins, M.D.—The Principles and Practice of Surgery, by D. Hayes Agnew, M.D., LL.D.—Discussion on Intestinal Obstruction, by Rushton Parker, B.S., F.R.C.S.—On Chronic Atrophic Spinal Paralysis in Children, by A. H. Bennett, M.D.—Our Eyes and our Industries, by B. Joy Jeffries, A.M., M.D. (Harvard)—Manchester

Health Lectures for the People: Breathing, by Arthur Ransome, M.D., M.A.—The People's Guide to the New Law of Bankruptcy, by W. Berry Greening, LL.D.—Tenement Hospitals, by Francis Vacher—Report on the Sanitary Condition of the Borough of Birkenhead for 1882.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Archives de Neurologie—Archivio Italiano—Western Medical Reporter—Grocers' Gazette—Medicinisch-Chirurgisches Correspondenz-Blatt—American Journal of Obstetrics—Detroit Lancet—Maryland Medical Journal—Sanitary Engineer, New York—Boy's Own Paper—Friendly Greetings—Girl's Own Paper—Leisure Hour—Dublin Journal of Medical Science—Glasgow Herald, November 23—Revue de Chirurgie.

## APPOINTMENTS FOR THE WEEK.

### December 1. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

### 3. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m. Casual Communications from Messrs. H. Weiss, Bland Sutton, Morton Smale, and Dr. Elliott. Discussion on Mr. Henry Power's paper "On the Relations between Diseases of the Eye and Diseases of the Teeth."

MEDICAL SOCIETY OF LONDON (Council Meeting, 7½ p.m.), 8½ p.m. Mr. Clutton, "On a Case of Fistula in the Penile Portion of the Urethra successfully treated by a Plastic Operation after opening the Urethra in the Perineum." Mr. Rose, "On a Case of Recurrent Femoral Aneurysm after Ligation of the External Iliac Artery; Excision of the Entire Sac; Recovery" (living specimen). Mr. Royes Bell, "On a New Method for Exposing the Knee-Joint in order to remove Pulp Degeneration of the Synovial Membrane."

SOCIETY OF ARTS, 8 p.m. Mr. W. Mattieu Williams, "On the Scientific Basis of Cookery." (Cantor Lectures—I.)

### 4. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Dr. Norman Moore—Three Cases of Pancreatic Disease. Dr. S. West—Purulent Pericarditis. Mr. Symonds—Aneurysmal Dilatation of Radial Artery following Suppurative Arteritis. Dr. Mahomed—Cystic Disease of the Kidney and Hydro-nephrosis. Dr. Dawson Williams, "On the Etiology of Tuberculosis." Mr. A. Barker—Tubercular Ulceration of Tongue. Dr. Charlewood Turner—Encysted Central Sequestrum of Tibia. Mr. Jessett—Medullary Sarcoma of the Skull in a Child. Dr. Lediard—Caries of the Vertebrae in a Dog (card).

### 5. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. Percy Kidd, "On Cases of Laryngeal Phthisis."

EPIDEMIOLOGICAL SOCIETY (Council Meeting, 7½ p.m.); Special General Meeting, 7½ p.m.), 8 p.m. Sir W. R. E. Smart, K.C.B., M.D., R.N., "On Scurvy in its Bearings on Explorations by Sea."

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Specimens will be shown—Dr. Barnes, "On the Mechanism of Labour, especially with reference to Naegele's Obliquity and the Lumbo-Sacral Curve." Dr. E. S. Tait, "Observations on Puerperal Temperatures."

### 6. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. Mr. Montagu Smith, "On the Ethics of Vivisection."

PARKES MUSEUM OF HYGIENE, 8 p.m. Dr. G. V. Poore, "On Coffee and Tea."

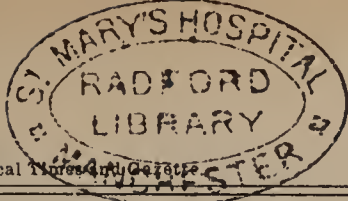
### 7. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

MEDICAL SOCIETY OF CHARING-CROSS HOSPITAL, 8 p.m. Mr. A. E. Dodson, "On Cremation."







## APNŒA OR ASPHYXIA.

ON SOME NOTABLE DISCREPANCIES OF STATEMENT IN RECENT PHYSIOLOGICAL WRITINGS AS TO FUNDAMENTAL FACTS IN THE PROCESS OF DEATH BY SUFFOCATION.

By ALEXANDER HARVEY, M.D.,

Consulting Physician to the Aberdeen Royal Infirmary;  
Emeritus Professor of Materia Medica in the University of Aberdeen, and  
sometime Lecturer on Institutes of Medicine in that University.

(Concluded from page 625.)

II. In APNŒA, at the moment of death, are the *left* cavities of the heart full or empty of blood?—Dr. Fagge's allegation as to this considered.(a)

In the introductory part of this paper a brief statement was given of Dr. Fagge's representation of the state of these cavities at the time when death actually occurs in apnŒa. It embraces, it will be remembered, two main points. *First*, he affirms that at the moment of death the left cavities of the heart are not only full of blood, but gorged with it, equally and alike with the right cavities; and, *secondly*, that "if in ordinary autopsies in the human subject the left auricle and ventricle are found comparatively empty, whereas the right ones are distended, it is because the former unload themselves during the setting in of the rigor mortis."

Dr. Fagge tells us nothing more. He makes no reference to the state of the whole set of bloodvessels intervening between the right ventricle and the left auricle as being full or empty of blood. Like Dr. Johnson, he takes matters as they stand at the moment of death. He is right in doing so, for in respect of any true theory of asphyxia it is on this that its validity must hinge.

No doubt, in common with Dr. Johnson and other physiologists, Dr. Fagge would allow that the whole set of pulmonary arteries are also full of blood. But what as to the condition in this respect of the pulmonic capillaries and the pulmonic veins? Dr. Johnson, as we have seen, holds that these capillaries are nearly empty of blood, and that the lungs themselves are anæmic throughout, except at the base, and collapsed and shrunken. But if at the moment of death the left cavities of the heart are full of blood, nay, gorged with it, as Dr. Fagge alleges, the capillaries in question and the pulmonic veins must needs be full also. And if such be the condition of these vessels, it is plain that Dr. Johnson's theory must fall to the ground, and Dr. Alison's also, and the cause of the fatal event in asphyxia must be sought for elsewhere.

In his essay, Dr. Fagge incidentally remarks that in his account of the *phenomena* of asphyxia he has followed Prof. Foster almost word for word. Fancying that he might have thus followed that distinguished physiologist in his account of other parts of the process, I turned to Dr. Foster's "Text-book of Physiology,"—to the last edition of it (the fourth), published during the year now current (1883). There I find a like absence of information as to the state of the pulmonary bloodvessels. Dr. Foster is absolutely silent regarding them as empty or full. But, quite in keeping with Dr. Fagge, he affirms that "if the chest of an animal be opened under artificial respiration, and asphyxia brought on by cessation of the respiration, it will be seen that the heart during the second and third stages becomes completely gorged with venous blood, *all* the cavities as well as the large veins being distended to the utmost." Again—"If the heart be watched to the close of the events, it will be seen that the feebler strokes which come on towards the end of the third stage are quite unable to empty its cavities; and when the last beat has passed away, its parts are still choked with blood." Again—"When rigor mortis sets in after death by asphyxia, the

left side of the heart is more or less emptied of its contents, but not so the right side. Hence, in an ordinary post-mortem examination, in cases of death by asphyxia, while the left side is comparatively empty, the right appears gorged." Dr. Fagge and Dr. Foster are clearly at one as to the state of the left cavities at the moment of death and some time thereafter. It is remarkable enough, it may here be observed, that in speaking of the heart and its cavities Dr. Foster *seldom* discriminates between its two sides—between the right and the left. He speaks of it and of its cavities as a whole. It is only when he comes to speak of the rigor mortis, and the alleged effect of it, that he specially refers to the left.

Turning now to another and much esteemed work on physiology—viz., Dr. Kirkes's Handbook, and to the ninth edition of it, as edited in 1876 by Mr. Marrant Baker—for further light on the vexed question before us, I must confess to disappointment. I met with a singular want of precision in the statements as to not a few points of importance. Nothing is said as to the condition of the pulmonic capillaries. Reference indeed is made to "obstruction to the passage of blood through the lungs." It is said "to be not so great as it was once supposed to be," and, such as there is, "to occur chiefly in the later stages of asphyxia," and then, seemingly, from mechanical "pressure made indirectly on the lungs, from violent and convulsive action of the respiratory muscles" (page 260). As to the effect, however, of this obstruction in the way of filling or emptying the pulmonic capillaries, nothing is said. But as the obstruction is said to be not so great as was once supposed, and to occur chiefly in the later stages, it is a sound inference that these capillaries should be fairly full of blood. Yet as to one point Dr. Kirkes or his editor is explicit enough. He affirms, in common with Dr. Foster and Dr. Fagge, that, at the moment of death, "the left as well as the right cavities are distended with blood" (page 261).

On inspection, then, of the left cavities of the heart *in articulo mortis*, in what state are they found in respect of blood? One set of physiologists affirm that they are empty—virtually quite empty; another set that they are full of blood—gorged with it. "Who shall decide when doctors disagree?" And such doctors! Dr. Johnson, Prof. Rutherford, and Prof. McKendrick on the one side; and on the other, Prof. Foster, Dr. Fagge, Dr. Kirkes. And this in respect of a process of such interest as apnŒa, and which has so often been the subject of research, and in respect also of a part of that process so little recondite, so open to the eye!

What is obviously called for in the circumstances is a renewed inquiry into the matter. Meanwhile, I would take leave to observe that no one can carefully read the statements adduced by Dr. Johnson without being satisfied that the result of any such inquiry will be to confirm what he has advanced under this head. The allegations of the physiologists, who say that the cavities in question are full of blood at the moment of death, may be said to be general and off-hand; while, as regards those made by Dr. Johnson, there is a quality about them which, in a manner, vouches for their truth. They stand out as the result of actual and very careful observation made at the time by himself and others, and as the result not of one observation only, but of several.

The observations made in the first division of this paper had reference to the state of the pulmonic capillaries and of the lungs generally, in respect of contained blood at the time of death. Yet, while establishing fully Dr. Johnson's assumptions in regard to this point, they bore not a few of them on the question now before us, and gave substantial support to the view of it taken by him.

Let us now consider in detail the evidence adduced by Dr. Johnson to show that at the moment of death the left cavities of the heart are really empty of blood. He first refers to an experiment made in October, 1867, on a dog weighing fourteen pounds and a quarter. "Directly the respiratory movements ceased the chest was opened. The right cavities of the heart were full and *tense*; the left, comparatively empty and *flaccid*. In particular, the two auricles presented a *marked contrast*. The right auricle stood out in a globular form, and had a tense and elastic feel, like an india-rubber

(a) The author desires to express his sincere regret at the untimely death of this distinguished and rising physician—an event which occurred while these sheets were passing through the press. All honour to his memory!



ball distended with air, while the left auricle was flaccid and its surface wrinkled." Again, in this case, "a ligature having been placed round the large vessels, the heart was removed, and its cavities emptied, when *two ounces* of blood gushed out of the distended right cavities, while *two drachms and a half* only flowed slowly from the left side." Again, in the case of two rabbits experimented on in 1876 by himself and Mr. Hamilton Cartwright, and in which fatal apnœa was induced by the inhalation of nitrous oxide gas, the chest was laid open immediately after death, but, while the heart was still found beating, "the right cavities and the systemic veins were greatly distended with blood, while the left cavities and the aorta were *completely empty and flaccid*."

Nor this alone, decisive as the evidence is. In another set of experiments, made in 1873, in conjunction with Prof. Rutherford, the observations made in respect of the blood-pressures—systemic and pulmonic—were quite in keeping with Dr. Johnson's allegations as to the state of the left cavities. The general facts as to this were fully stated in the former division of this paper. Let me again adduce them here somewhat more in detail. On the artificial respiration being suspended, "immediately the colour of the left auricle changed from crimson to purple, and the kymograph indicated a continuous increase of pressure in the systemic arteries. After the increase of pressure had continued for about a minute, the left cavities of the heart became much distended,—the auricle, in particular, became expanded into a tense globular ball with a smooth surface. In the next period the pressure in the arteries began to fall, and, about the same time, the right cavities of the heart, which had hitherto remained of the normal size and form, began to expand, while the distension of the left began rapidly to subside. Meanwhile the right cavities became more and more distended, and now the right auricle assumed the appearance of a round, tense ball, while the left auricle had become *nearly empty and flaccid*. The right ventricle also became so distended that it projected above the level of the left."

Here is circumstantial evidence of an incidental yet of the strongest kind in support of Dr. Johnson's view of the state of the left cavities at the moment of death. And, singularly enough, it is borne out unintentionally by Dr. Foster. Speaking of the subsidence of the systemic blood-pressure, which, according to him, begins early in the second minute of the asphyxial process, Dr. Foster says, "it falls even more rapidly than its rise, repassing the normal and becoming *nil as death ensues*" ("Text-book," fourth edition, page 378). No renewal of this blood-pressure is spoken of, such as would be needed again to fill the left cavities emptied by the subsidence just referred to. Nor could there well be any renewal of it at the time spoken of by Dr. Foster—death just ensuing. It is singular that, with this in his eye, Dr. Foster could speak of these left cavities being full of blood—gorged with it at the moment of death! It was the systemic blood-pressure, exerted by the presence of venous blood in the systemic arteries, that led to the filling and distension of the left cavities in the first instance; it was its subsidence that led to the emptying of them; and, doubtless, had there subsequently been venous blood passing into these arteries from the left side of the heart, the blood-pressure would again have come into play, with the effect of again distending the left cavities. But there is no such renewal of that pressure—a fact implying that there is now no venous blood in the cavities in question.

Enough I think appears, as well directly as indirectly, to demonstrate that Dr. Fagge, and Dr. Foster, and Dr. Kirkes are somehow wrong in the assumption they make as to the state of the left cavities of the heart at the moment of death; and enough to show that Dr. Johnson and Dr. Rutherford are right in theirs. In the circumstances, however, it seems desirable that a fresh inquiry should be instituted to set the question finally at rest; and this surely could be done by the drowning or suffocation of cats and dogs without leave asked and obtained of the Home Secretary?

#### SUPPLEMENTARY OBSERVATIONS.

I shall conclude this essay on Apnœa with some remarks bearing on certain points in the history of that process which, it seems to me, have not received at the hands of physiologists the attention they deserve; and also on some others as to which differences of statement are to be found,

other than those already considered, in some of our best treatises on physiology.

I. As to what goes on in the interior of the heart and in the bloodvessels intervening between the right and left sides of the heart during a comparatively large part of the process.

Taking the process as it occurs in the dog, it appears that the time intervening between the exclusion of air from the lungs and the final arrest of the heart's action is, on an average, in ordinary cases, seven minutes eleven seconds.

Now, we learn from Dr. Foster that the first stage, or that of dyspnœa, passes into the second, or that of convulsions, at the end of the *first* minute, and this into the third or final stage *early* in the *second* minute; and that this third stage, or that of (respiratory) exhaustion, consisting of lingering and long-drawn inspirations, lasts from early in the second minute to the end of the *fourth* or *fifth* minute. After this cessation of respiratory effort, however, the heart goes on acting till the end of seven minutes fifteen seconds, or, on an average, about three minutes after that effort is over.

This substantially agrees with Dr. Johnson's observations. Within a few seconds from the outset, from the exclusion of the atmospheric air, the pulse and the breathing are quickened; in a few seconds more the breathing becomes slow and shallow, and the pulse full and firm. The latter indicates the rise of the systemic blood-pressure. Then, in from forty to eighty or ninety seconds from the outset, the pulse suddenly becomes almost or quite imperceptible, indicating the fall of that pressure to "*nil*." As to this, Dr. Foster states that "during the first minute (or sixty seconds) and a brief part of the second" [say fifteen seconds, or, in all, eighty seconds], "the systemic blood-pressure rises rapidly, attaining a height far above the normal; but that during the third stage, which then begins" [begins after seventy-five or eighty seconds], "it falls even more rapidly, repassing the normal and becoming *nil* as death ensues."—"Handbook of Physiology," fourth edition, page 378.) By death is here meant doubtless apparent death—*i.e.*, cessation of the breathing.

Simultaneously with the fall of the systemic blood-pressure, that of the pulmonic rises; and then there ensues, according to Dr. Johnson, collapse of the left cavities of the heart and distension of those of the right—that of the latter going on rapidly, and quickly reaching a height in inordinate bulging of the right auricle.

Putting together the phenomena already described, and the times just indicated, it may fairly be assumed that the bulging just referred to reaches its apparent, if not its actual, consummation within one minute and forty-eight seconds from the beginning of the process—if not, indeed, within a still shorter period: let us say within two minutes.

Now, the extreme distension and bulging of the right auricle denotes that the stopcock action of the pulmonic arterioles is in full exercise; that the pulmonic arteries and the right ventricle are full and distended with blood—the obstruction in front of the auricle (*i.e.*, at the pulmonic arterioles) and the pressure of the advancing current of blood behind it in the great veins aiding in the distension of it.

I presume that, according to Dr. Johnson, this state of matters implies the *virtual* arrest of the circulation. From the moment that the filling of the right auricle begins, it goes on rapidly to the full, and never again subsides. The auricle cannot empty itself, by reason of the stopcock action never again relaxing. The ventricle, being already full to distension, can admit no more blood from the auricle, while the ventricle cannot now empty itself into the pulmonary artery because of the latter being also full to distension.

And yet the heart continues to act, and to all appearance it must do so, for *full five minutes* after the block has occurred,—but say four minutes.

How, in the circumstances, does the heart act, and what is the *result* of its action? Four minutes is a very notable, in fact, at such a juncture, a *long* time for it to act. Dr. Johnson states that after the right cavities had become distended, the right ventricle continues to act forcibly. Dr. Foster speaks of "the heart's beats as at first somewhat quickened, while at the same time they acquire great force." Again, according to Dr. Foster, "the heart continues to beat



for some seconds after the respiratory movements have ceased, the strokes at last rapidly failing in frequency and strength." And again, "the feebler strokes which come on toward the end of the third stage are quite unable to empty its cavities" (page 378).

There is some want of precision in these few particulars, and yet one cannot but think that, often as the heart has been seen acting in the exposed chest in experiments on living animals, our information might be of a more definite kind. Its action is quickened and stronger for a time, then after a time it becomes slower and weaker, and in the end very feeble. There will, of course, be differences in different animals of the same species. Average results are all that can be looked for, or need be desired. Yet surely, by a series of well-devised experiments, the precise character of the heart's beats and the times of the several kinds of change they undergo, might be determined to minutes and seconds.

Meanwhile, one can only speculate on what may or must be going on within its cavities and inside the pulmonic bloodvessels during the four minutes that intervene between the full stopcock action of the pulmonic arterioles and the final cessation of the heart's action.

From all that appears from sundry statements of Dr. Johnson and Dr. Foster, I incline to think that the *strong* action of the heart does not continue *long* after the filling and bulging of the right auricle. Dr. Johnson indeed states that after the right cavities have become distended the right ventricle continues to act forcibly. How long he does not say, but, according to his theory, *cui bono* its action at all? The right ventricle can expel little or nothing—in fact, nothing. The left ventricle, according to Dr. Johnson's theory, has nothing in it to expel, nor has it had anything to expel for full four minutes. Is its action, then, on both sides, for some minutes, action without result—abortive action—a mere contracting and relaxing of individual fibres? But how can a hollow muscle already full to distension, and without an available outlet, contract at all? (b)

Dr. Foster says (as we have seen) that "the feebler strokes which come on toward the end of the third stage are quite unable to empty its cavities" (page 378). This stage ends full three, if not four, minutes before the heart finally ceases to act. But how does Dr. Foster know that there is here any question at all as to the *emptying* of the heart's cavities, and that too for some minutes? Is it from actual observation made during the process, or how? He does not say, and, according to Dr. Johnson's theory, there can be nothing of the sort taking place. It is conceivable that the stopcock action of the pulmonic arterioles, though sufficiently complete to keep the right auricle always distended, always bulging, may yet be such as to admit of a few drops, or even of a tiny stream, to pass into the capillaries. Very small, however, the quantity must needs be, else there could not fail to be a renewal or renewals of the systemic blood-pressure—an occurrence never seen.

This whole matter is one of no moment any way; yet it is one which surely merits some attention as a part of the physiology of the process.

II. Next as to Prof. Foster's theory of asphyxia, and some points connected with it.

Both Dr. Foster and Dr. Kirkes (or his editor) assume, it will be remembered, in common with Dr. Fagge, that at the moment of death the left cavities of the heart are, equally and alike with the right, full of blood—nay, distended with it. This, if true, necessarily implies that the whole set of pulmonary bloodvessels intervening between the two sides of that organ are also full of blood—the pulmonic capillaries and the pulmonic veins not less than the pulmonic arteries.

Dr. Foster's view seems to be that the action of the heart fails simultaneously on both sides, and from like causes—in part from over-distension of its cavities weakening its contractile power, in part from the poisonous agency of venous blood on the heart, with which its substance soon comes to be permeated, and in part from exhaustion of its nervous

(b) We must discriminate, of course, between the right and left ventricles—the latter empty, or virtually empty; the former full to distension, and now without any available outlet. The left may go on flapping and flapping upon itself, albeit expelling nothing. But how can the right possibly act when distended and precluded from expelling a single drop? And there is even more than four minutes for the heart acting in *some way* before its action finally ceases. Surely it were a matter of no small interest to know precisely the behaviour of the heart at this stage.

energy. This too seems to be the view taken of the matter by Dr. Kirkes or his editor. And as to the weakening of the contractile power of the heart from over-distension of its cavities, they both liken or compare it to what takes place with the urinary bladder from a like cause. They speak of it as a *paralysis* of the heart.

Now, as to these alleged causes of failure of the heart's action, it may well be asked, In what way does the readmission of atmospheric air affect them? The effect of the re-arterialisation of the venous blood is, in favourable cases, *immediate*, or virtually so. The enfeebled, poisoned, paralysed heart at once acts with wonderful vigour, re-establishing the suspended circulation. "More than once," says Dr. Johnson, "when the circulation was nearly at a standstill, artificial respiration was resumed. The blood *at once* passed *freely* through the lungs; the distension of the right cavities of the heart subsided." The experiments of Bichat, made with a stopcock affixed to the summit of the trachea, and those of others, exhibited the same result—the *immediate* restoration of the full action of the heart; and this of the naturally weaker right ventricle, which, moreover, has far more, and for a much longer time, had to bear distension, and which must be the first of the two ventricles to resume action, and thus enable the left one to act. Again, what a contrast to the urinary bladder—inoperative for days or weeks! Here it is an affair of seconds, and, in the nature of things, must be of seconds only. Again, how is the newly made arterial blood to reach the substance of the already poisoned heart but through the action of the poisoned heart itself?—an organ which, agreeably to Dr. Foster's theory, has first of all to send on the whole mass of venous blood assumed to be lying in the pulmonic capillaries, veins, and left cavities of the heart, poisoning it still further, and thus further enfeebling it, before the revivifying arterial blood can reach it. And how as to the restoration of nervous energy?

But we have already seen good reason for believing that Dr. Foster is in error as to the facts of the case, and Dr. Johnson right—the one wrong, the other right, as to the state of the left cavities and of the pulmonic capillaries and veins at the moment of death. In fact, I assume that there can now be no longer any question as to this.

III. Another point in the history of apnœa demands some notice. It is whether reanimation is possible after the heart has ceased to act. Dr. Alison states that it is so. "For some *minutes*," he says, "after the circulation has ceased, in a warm-blooded animal, it is still possible to restore it by blowing air into the lungs" ("Outlines," third edition, page 242). In a footnote he refers to Roesler, and to Goodwin's reply to Bichat, and to both as to be found in the *Edinburgh Medical and Surgical Journal*, vols. xxiii. and xxiv.

Again,—Sir Thomas Watson makes the same affirmation (third edition, 1848): "In this state, even *after* the heart has ceased to beat, but *not long* after, if the cause which has excluded the air be withdrawn, and fresh air readmitted—in other words, if artificial respiration be instituted,—the blood in the pulmonary capillaries undergoes the required change, becomes arterial, begins again to pass onwards, and by degrees the circulation is restored, and the patient saved" (Lecture V., vol. i., page 67).

It appears, however, from the experiments of the Committee of the Medico-Chirurgical Society of London, appointed to investigate the subject of suspended animation, that in *no case* of simple apnœa did recovery take place after the heart's action had ceased.

Whether this negative result of one set of experiments be decisive of the question, I cannot say, and I am not in circumstances to pursue the matter further. But one would think that there must surely have been facts of a *positive* kind to lead Dr. Alison and Sir Thomas Watson to make the affirmations they do. And in view of the fearfully appalling loss of child-life at Sunderland, on June 16 last, when 282 children perished within a few minutes from suffocation, it is to be hoped that, in some cases at least, reanimation may be possible even after the heart has ceased its action, albeit for only a minute or two thereafter.

IV. Now for a word or two of a practical kind. 1. How important it is to have a lively appreciation of the danger attaching to cases in which death from acute apnœa is



threatened; nor less a like appreciation of the value of the only remedy that can in such cases be regarded as infallible, to wit, *tracheotomy*. My late revered friend, Dr. P. M. Latham, of St. Bartholomew's Hospital, had such an appreciation. "As I was going round the hospital one morning," he tells us, "a dying woman was carried in and laid upon a bed. What a frightful picture she was! Cold and livid, and pulseless; her eyes starting from their sockets; her mouth wide open, and lips and tongue and teeth black with sordes; and breathing convulsively, and with a kind of scream. With what agony she struggled for life! and what force she used to preserve it! Tossing about her arms, striking aside all who came near, for they kept the air from her. . . . What was to be done? . . . She had been bled without relief. Symptom after symptom arose rapidly and uncontrollably, until they reached their present awful consummation."

"This was quite enough to know. I ordered her trachea to be opened. Mr. Earle was at hand, and did the operation at once. The relief was complete, and she sank into a calm slumber. . . . In six weeks she was discharged well. I have twice," adds Dr. Latham, "at distant intervals, met her in the street, and she has recognised me with a smile."—"Lectures on Subjects connected with Clinical Medicine," 1836, page 93-4.) Could Dickens or Thackeray have drawn a more graphic picture?

2. Again. A hospital surgeon in Paris, making his round of visits one morning in his wards, came to the bedside of a patient admitted a little while before. The man was suffering from *laryngitis*. It was well marked, but at the time of visit there was nothing urgent in the symptoms; yet straightway the surgeon called for the requisite appliances and laid open the windpipe. This done, he remarked to the students around him that he had deemed it his duty to do what he had done, his object being to put his patient in a position of *assured safety*. There was nothing, he said, directly demanding the operation, nor might there have been in the future, but the ailment was of such a nature that it might at any moment become urgent; that it might be fatal in a few minutes, and at a time when there might be no help at hand. On these grounds he did what he did. He acted well and wisely, I think. The operation, no doubt, was a painful one; but the contingency was a vital one—life was at stake and in peril. It was a life-assurance at a tolerably high rate of premium; yet the assurance given was worth the price. I have always looked upon this case and Dr. Latham's as the finest illustrations possible of Cullen's "memorable injunction"—that of "*obviating the tendency to death*."

3. In his treatise "On the Practice of Medicine," Dr. Flint gives a case the exact counterpart of that of the French surgeon, with this wide difference: that what ought to have been done at the time it was first seen was left undone. Everything, indeed, was got in readiness for the operation being performed "at an instant's notice." That instant came too soon! Suddenly the symptoms became urgent. "The physician was in a few moments at the bedside, but too late to save the patient." Dr. Flint urges the importance of acting in such cases on the principle by which the French surgeon was guided, exhibiting at the same time the frightful mortality that has actually resulted from the neglect of it. Treating of the *œdema glottidis*, he observes that "the operation may be advisable as a *precautionary* measure, even if life be not at the moment threatened, when the practitioner cannot remain with or near the patient until danger is past"; and, further, that "with a correct appreciation of the pathological condition, a prompt recognition of it, and timely surgical interference, many, *if not most*, patients may be saved"; adding that "the large proportion of fatal cases heretofore recorded may fairly be ascribed either to an imperfect knowledge of the affection, delay in the diagnosis, or want of promptness in resorting to efficient interference." The statistics given by him show a mortality of 16 in 17 cases, of 31 in 40, and of 127 in 168—in all, a mortality of 174 in 225 cases, in respect of a disease "in which *most* patients may be saved" ("Principles and Practice of Medicine," fifth edition, pages 303, 304). An apt illustration this mortality furnishes of the wisdom of a precept of the late revered Dr. Alison, to wit, that "in those diseases in which most can be done by art, our practice must always be guided in part by conjecture, because if we wait for certainty we very often wait until the time for successful practice is past" (History of

Medicine in "Cyclopædia of Practical Medicine," Introduction, page lxxxvii.).

4. I may perhaps be pardoned for giving here a case under my own care in the Aberdeen Royal Infirmary in 1847—a case showing how one may succeed in saving life when all hope of averting a fatal issue has been abandoned, against even the patient's resolve to die rather than submit to the requisite operation. It was the case of a young woman, aged about twenty-five, convalescent from typhus, then raging epidemically in the large towns of Scotland. She had passed safely through the fever, but during recovery was seized with *œdema of the glottis*. A consultation of the whole hospital staff was held. The operation of tracheotomy was unanimously pronounced to be urgently demanded. On the necessity for it being intimated to her, she at once refused to submit to it. Told that she must die if not performed, she still refused; and all entreaty was unavailing.

The staff retired, leaving myself and the House-Surgeon alone with her. Ruminating over matters by the fireside of the ward, a pan on the hob beside us suggested to us a yet untried expedient—that of moist heat to the throat in the way of fomentation. To this she assented. So, setting the water in the pan a-boiling, we immersed in it a goodly number of strips of flannel. These ready for use, we, in a trice, had the whole neck all round enveloped with the scalding bits of flannel, holding her down in bed the while. She struggled with all her might, kicked and screamed—or, rather, squeaked. Immediate vesication was our purpose, and our hope was that this would effectually take off the tension within the glottis.

In a brief space there were agreeable indications of our hope being realised. And realised it was. Gradually the breathing became more and more free, and the voice more distinct. Within thirty or forty minutes all immediate danger had passed away, and we left her, mollified towards us, and well pleased with the fomentation.

Unfortunately, she died some weeks after of bronchitis and congestion of the lungs.

V. A word or two in conclusion as to the *nomenclature* in use to designate the process of death by suffocation.

Fifty years ago, Sir Thomas Watson called attention in his Lectures to the inappropriateness of the term long in use to designate it—namely, *asphyxia*. It signifies, as he observed, *pulselessness*, or want of pulse, and might therefore express any kind of death, or, if applied to any particular mode of dying, is specially appropriate to that beginning at the heart—to *syncope* or *asthenia*—and specially *inappropriate* to that resulting from suffocation. And for this mode he suggested, and intimated his own intention of using, the term *apnœa*, signifying privation or want of breath.

This suggestion was readily acquiesced in, and the term *apnœa* came to be very generally adopted by writers on pathology and practice of medicine—by Dr. Flint, Dr. Bristowe, Dr. Aitken, Dr. Johnson, Dr. Roberts, the reporters (expressly) of the Committee of the Medico-Chirurgical Society, and many others.

It so happens, however, that long after the general adoption by pathologists and physicians of the wise suggestion made by Sir Thomas Watson, the physiologists stepped in, and, with a singular unanimity, filched that term from its legitimate use and from physicians. They came to appropriate the term not to any condition ever met with in medical or surgical practice, but to an incident attaching to a physiological experiment. It appears that when insufflation is carried on too rapidly or unduly, as in the artificial respiration, or when an animal is made to breathe pure oxygen, the whole blood of the body becomes arterialised. On this happening the breathing is suspended—spontaneously ceases. It is to this somewhat complex affair that they apply the term, and to which they restrict it. This failure of breathing from prior overmuch breathing, and leading to undue arterialisation of the blood, is to them *apnœa*. What, it may fairly be asked, is, in their own view, their warrant for this use and restriction of the term? Is it to the cause of it—overmuch breathing,—or to the effect of this on the blood, or to the suspension of the breathing in the midst of air abounding? To none of these singly is the term "*apnœa*" appropriate. Is it to the whole jointly? To this it is equally inappropriate, except after an Irish fashion—"Water, water everywhere, and not a drop to drink!" There is no want or privation of air in the



matter; it is only that no more is needed. If it be simply to the suspension of the breathing, *per se*, then, while the word apnoea does not express this condition, it is one that holds of an important stage of the process of suffocation, and one lasting in the dog for full three minutes before the heart ceases to beat. Sir Thomas Watson, indeed, named it apnoea after its essential cause, "privation of air,"—not from any one feature of the process itself. But if apnoea is to be held *want of breathing* (which, as we have said, it does not express); why should not the physiologists have acquiesced in the extension of it to the whole process, as already agreed on at the instance of Sir Thomas? Again, we have the like occurring in cases of *sudden syncope*, and lasting often for many minutes or hours before recovery takes place or life becomes extinct. Is this also apnoea? If so, it should be regarded as the designation, not of any one process, but of a condition incidental to several, namely, suspended breathing. But to this, as already remarked, it is as inappropriate as it is to any other part of the affair to which the physiologists have applied it. It cannot, in any sense of the term, apply to the abnormal arterialisation of the blood. Altogether, the physiological use and restriction of the term "apnoea" to a matter so trumpery, physiologically, as that of over-insufflation can only be looked upon as an unmeaning play upon words, to say nothing of the *morale* of the appropriation.

Anyhow, in thus appropriating that word—taking it from the physicians who had acquired a prescriptive right to it of over forty years—the physiologists might have shown some care to devise for them and for themselves some suitable designation for the important process of suffocation. Why throw them and themselves back on the rightly discarded term asphyxia—pulselessness? For this term "asphyxia" is appropriate to no part or stage of it, pulselessness obtaining only when the heart ceases to act, *i.e.*, when life is extinct.

In strict propriety, want of breath means absence or privation of breath. In common parlance it means need of breath. We may thus have Apnoea for the cause of suffocation, Apnoea for the remedy for it, and Apnoea for the last stage—leaving no name for the earlier stages going on unseen within the chest, unless we take it in Watson's way—Apnoea for the whole. We may thus play upon words to any extent we please, as, in a way of their own, the physiologists have done with this word APNŒA,—a word absolutely needed accurately to designate the interesting and important process of death from SUFFOCATION.

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## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,  
President of the Epidemiological Society.

(Continued from page 493.)

### MALARIAL CACHEXIA—Continued from page 154.

*Malarial Hepatic Disease.*—Within my bare recollection enlargement of the liver, following repeated attacks of Intermittent, occurred among the denizens of English marshes, who were said to be "liver-grown." It is to be trusted that these cases have become fewer since the marsh people in remote districts have supplied themselves with stocks of quinine and Gregory's powder. This state of disease, which, commencing with enlargement, has a tendency to end in kirrrosis, is noticed in nearly all highly malarious districts in India. In large development it is far less common in Bengal than splenic hypertrophy, although the liver is rarely, if ever, healthy where the spleen is extremely diseased. It is probable that the ascites, which is common in spleen cases, is largely due to functional or organic hepatic obstruction. I have seen malarious disease of the liver at various stages. It appears to commence as enlargement, which, for a time, diminishes at the end of every attack of fever. Still, every succeeding paroxysm gives increment to the mass. If the fever be

completely got rid of, the organ may recover; but, in neglected cases, Malarious Cachexia is established, and, after many alternations of enlargement and contraction, an extreme degree of kirrrosis is established. The most excessive development of the hobnail condition that I ever recollect to have seen—not excepting the gin livers at Guy's Hospital—was in a poor native woman, probably not a drunkard. A medical officer, of very high character, having been stationed at Akyab, a malarious seaport, became the subject of rapidly progressing kirrrosis of the liver. I saw him in London not long before his death from hydrothorax and other dropsical effusions. He was still an active man, between thirty and forty years of age, but with the pinched features and parchment-like complexion often seen in organic hepatic disease.

An officer, who now occupies a high post in India, came to Bengal about twenty-nine years ago. I recollect him, on his arrival, a very fine young man, apparently in perfect health. He was sent, early in his career, to a newly occupied station, which was then notoriously malarious, where he had a great deal of fever. In the autumn of 1855 I was asked to see him in Calcutta. He was much wasted and anæmiated, his features pinched, drawn, and painfully anxious, dusky, and pallid. The abdomen was tumid, an enlarged liver extending from high up in the chest nearly to Poupart's ligament and to the left beyond the navel. To the touch the mass was of even solidity, generally smooth, except where, below the plane of the umbilicus, a defined hemispherical nodule, as large as half an orange, raised the abdominal walls. I happened to go as far as Madras in the steamer which conveyed him to England. During his first few days on board the rapidity of his improvement was very striking. His strength and appetite began to return; he was much upon deck; and his liver went up a finger's breadth daily.

I apprehend that, had he remained in a very malarious district, the liver would not have recovered, but would, eventually, have become kirrrosed and much contracted. He has always remained very thin, with a pale, shrunken countenance, and has suffered much from neurotic asthma. In these cases long-continued courses of quinine and ipecacuanha and change of climate are the chief remedies. As mercury is not used in India for hepatic disorder, no caution against the employment of this drug, which would probably kill, is necessary. I have alluded elsewhere to the influence of malarious liver-disease in the production of abdominal dropsy, and I shall have to discuss hereafter the question, "What influence has malarious cachexia in the causation of hepatic abscess?"

When contraction of the liver causes dropsy, we have before us an important clinical study. As we know that stenosis of one of the ostia of the heart may advance to such a degree as scarcely to allow of the passage of a goose-quill before the walls of its chamber lose all power of muscular contraction, so it is almost certain that kirrrotic contraction of the liver very rarely, if ever, goes on to so extreme a degree as absolutely to arrest the portal circulation. At various stages of confirmed and advancing kirrrotic contraction, the liver becomes congested, say in consequence of an attack of intermittent fever, of a debauch, or of a chill, or of the establishment of one of those states of blood-improvement which we designate as "anæmic." Now the portal circulation is impeded, and, to relieve this, ascitic effusion occurs. Here is another of what I have termed "constitutional fixes." Here we may have emphysematous, bronchitic, or otherwise impedimental lungs, a weak or otherwise obstructive heart, kidneys as faulty as they generally are in cases of hepatic kirrrosis, and a history of hæmatemeses and dysentery. What are we to do here? We can give neither drastics nor diuretics. It remains to us only to *relieve the liver from all removable congestion*. We act here upon the principle which guides us in the treatment of what is called "spasmodic" stricture, in which there is temporary congestion of a narrowed urethra. We endeavour to avoid tapping, at least until we have fairly tried other means. We give a course of small doses of ipecacuanha, apply large sinapisms frequently over the whole hepatic region and beyond it, keep the bowels regularly open, employ gentle pressure by means of a broad flannel bandage, cut off the drunkard's and generous liver's supply of hydrocarbons, and give quinine in the malarious cases. Should the kidneys be sounder than they are likely



to be at an advanced stage of hepatic kirrrosis, we may cautiously promote diuresis. Thus we may effect judiciously what the famous Dr. Sermon did, coarsely and harshly, by use of his "cathartique and diuretique pill" in General Monk's dropsy.

While his Grace's bowels were sound enough and his kidneys valid enough, they bore and obeyed the evacuants, and the dropsy disappeared. When the hepatic congestion returned, the general health being lower, these coarse evacuants could not be borne, only irritated and failed signally.

We need not fear that, by such a course as I have sketched above, we can, without any strain upon the constitution, at least partially relieve the liver of its congestion; and then, and not till then (unless the upward pressure of the fluid threatens immediate danger, when we may remove a few quarts through a fine canula), we may tap with a fair hope of temporary success. I would most earnestly advise the young practitioner never to declare hastily that a kirrrosed liver is hopelessly obstructive. Up to almost the moment of dissolution, the congestions of these contracted livers fluctuate in degree, and are more or less removable. I shall recur to this subject when speaking of anæmic ascites consequent upon malarial cachexia.

**Pneumonia.**—Doubtless, nine-tenths of the cases of pneumonia which occur are due, not to external circumstances, but to the presence of some constitutional fault. Thus, pneumonia is likely to attack the victims of paludal cachexia, but I have never been able to trace any relationship more direct than this between malaria and pneumonia. In Lower Bengal—that hotbed of malaria—I do not think that, in upwards of twenty-seven years, I saw or heard of half a dozen cases of idiopathic pneumonia. I never saw it in a European, but, I saw a few cases, and heard of more, in poor, ill-fed natives, in whom the upper lobes are especially liable to be attacked.

Dr. Maclean(a) regards pneumonia as the most formidable complication of intermittent fever. He insists that invalids returning from India or from other hot and malarial climates to high latitudes, unless they are carefully protected by suitable clothing, are prone to suffer from this disease. The rapidity with which consolidation of the lungs takes place in such cases is very remarkable. It is not an uncommon thing to see five or six cases of this kind out of one party of invalids landed at Netley from India, if, on entering the Channel, they have been exposed to cold weather. The pneumonia is generally double, and recovery is rare, the patients either sinking at once, or dying after a longer or shorter illness from pneumonic phthisis. So I heard from my father, who was a naval surgeon, that, about the commencement of this century, a Russian squadron having run in to Spithead, the commanding officer was so much struck by the neat appearance of our sailors in their thin blue jackets and trousers, that he made his own people leave off their heavy clothing and gave them a like outfit. The weather was warm, but there were fresh breezes. The poor Russians died in great numbers of pneumonia, as if by a pestilence. Here we have a choice of causes between scorbutus and the influence of the Portsea marshes.

It has been frequently noticed that catarrh prevails extensively in outward-bound vessels on nearing the coast of India. I do not know that it is so, but it may be the fact, that, in certain localities, malaria and pneumonia exist in the relationship of cause and effect. Thus malarious Rome is notorious for pneumonia; but there the frequency of marked atmospheric transitions may be at least equally to blame. Mr. Oldham has recently described the complication of Intermittent and Remittent Fevers with pneumonia and pleurisy as very frequent and fatal on the border of the great Indian Desert, as at Bhawalpore. This fact becomes clearer when he adds that, in February, 1872, the maximum daily reading in the sun was 107° Fahr., and the average nightly minimum 30° Fahr., giving an average variation of 77° in the twenty-four hours. Still, the question remains, "Seeing that Calcutta and Chittagong are impested with malaria, and that both places are liable to sudden and very great changes of temperature, why are those places singularly free from pneumonia of strictly pronounced type, if malaria is to be looked upon as a principal cause of that disease?" There is, however, one fact which deserves

further consideration and examination. I have already noticed the great proclivity of native sick in Bengal to be suddenly attacked with fatal symptoms in the "small hours." Here there are generally found what appear to be little more than the evidences of passive congestion of the lungs. Possibly this may be "pneumonia" which never goes on to consolidation, but kills in three or four hours. To me, however, it appears to be merely that hypostatic pneumonia of the dying which frequently puts a sudden end to grave cases in all climates. (See also PNEUMONIA under the head of "Diseases of the Respiratory System.")

**Renal Disease.**—Albuminuria is often seen among anæmiated Europeans who have frequently suffered from malarious fever in India. This symptom may attend a condition of apparently vigorous health; and, as I have found it where the urine was free from casts and had a normal specific gravity, I believe that it may be a more passive serous hæmorrhage, from spanæmia unattended with permanent organic renal lesion.

Dr. Maclean(b) observes that, in malarial cachexia "the urine is sometimes albuminous, with œdema of the lower extremities—symptoms suggestive of Bright's disease, leading to a grave prognosis, often ill-founded, as the above-symptoms usually disappear under good climatic and therapeutic means." I have, however, repeatedly heard of cases of officers of the highest character, who could not be suspected of intemperance, in whom a long Indian career was terminated by what appeared to be Bright's disease. As the patients were not mine, I have no precise knowledge of the conditions of the kidneys in these cases.

Dr. W. J. Moore observes(c) that "if the urine passed during or immediately after a fever paroxysm is examined, it will very frequently indeed show evidence of albumen. When fever becomes habitual or of frequent recurrence, albumen is more constantly present. In the more severe forms of malarious cachexy, albuminous urine is quite as often present as absent."

Sir Andrew Clark has recently stated(d) the noteworthy fact that of the young men competing for places in the Indian Civil Service examination, he has ascertained, by repeated personal examination, that more than a tenth become albuminuric. He attributes this to "the strain of prolonged competitive examinations."

Indian albuminuria might well engage the attention of pathologists in that country, who should begin by examining the urine of a great number of Europeans and natives in apparently good health, then in various diseases, and especially in fever and malarial cachexia. As I have before mentioned, ordinary Morbus Brightii occurs in India; but far less frequently than in England. Dr. Morehead devoted a large section of his work to this disease. Many years ago, my friend, Dr. Joseph Ewart, published(e) a very interesting and suggestive series of cases of Granular or Hobnail Kidney, which occurred in the Jail and Dispensary at Ajmeer. The whole subject of Renal Disease in India would amply repay some years of diligent research.

I think that this inquiry could be best undertaken in those districts of the Madras and Bombay Presidencies and in Ceylon where Beriberi is most prevalent. Mr. J. L. Rankin observed, many years ago, (f) that his experience led him "to adopt the opinion that Beriberi is primarily and essentially a renal disease." I shall return to this question under the heading of "Beriberi."

(To be continued.)

**LOBSTERS AS AN ARTICLE OF DIET.**—Dr. Folson writes to the *Boston Medical and Surgical Journal*, that when in service at the Tainton Lunatic Hospital he had charge of the diet of about 450 patients. During the plentiful season all patients not acutely ill had well-boiled plain lobster once a week. Not a single instance of digestive disturbance occurred in consequence. Dr. Folson thinks that lobsters, if fresh and well boiled, are a wholesome diet for all without a special idiosyncrasy against them.—*New York Med. Record*, November 10.

(b) Quain, page 916.

(c) *Indian Annals of Medical Science*, No. 22, page 281, "Masked Malarious Fever."

(d) President's Address, Clinical Society of London, 1893.

(e) *Indian Annals of Medical Science*, No. 4 for 1855, page 539.

(f) *Proceedings of the Hyderabad Medical and Physical Society: Report on Beriberi*.



## CLINICAL NOTES OF

## CASES OF HYSTERO-EPILEPSY TREATED BY APOMORPHIA.

By T. HAMMOND WILLIAMS, L.R.C.P., etc.,  
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*Case 1.*—M. K., aged sixteen, a domestic servant. She was in good health, and body was well nourished. When I first saw her, on February 5, 1882, I was informed by her mother that she had been seized by as many as six fits during the day, each lasting about half an hour. There was no history of convulsions during childhood, and there was nothing striking in her family history. Menstruation had ceased two months previous to the onset of these attacks, and the patient imagined that she was pregnant, which, however, proved to be not so. Labouring under this false belief, the moral shock, and the reproach of her parents, she became dull, irritable, and latterly subject to convulsions. On the third day after the first series of fits, the convulsions reappeared. The motor symptoms were those of a general convulsive seizure, preceded by an aura from the præcordial region, which, however, was not constant. No cry preceded the fit. The spasms were at first clonic in character, face pallid, and features distorted, this stage lasting for three minutes. Afterwards the body and limbs passed into a state of tonic rigidity, the attack altogether lasting from twenty to thirty minutes. The tongue was not bitten, nor were the pupils dilated. On two occasions she struggled violently, threw her arms about, and scratched the attendant's face. Sometimes she would tear her clothes, sit up in bed making gestures, and the more the attendant attempted to restrain her movements the more resistance she offered. During the attack the orbicularis palpebrarum was in a state of tonic spasm, which occasionally was broken by a quivering movement. The eyeballs were turned upwards, but there was no strabismus. Reflex action was not completely abolished. Emotional activity revealed itself by gestures simply; no utterances of any kind were present. On pricking the skin no response could be elicited, and no blood appeared after the pin-prick test. Pressure on the ovarian region was of no avail, and the cold douche produced no benefit. A purgative was frequently given, also a dose of thirty grains of hydrate of chloral was administered thrice daily, which resulted in no beneficial effect, for the fits still continued to occur three or four times in a day. After these convulsive attacks had continued daily for over a week, the chloral was stopped, and, instead, an injection of one-fifteenth of a grain of apomorphia was administered subcutaneously immediately each fit commenced. The first two injections produced no emesis, probably because the hydrate of chloral previously given retarded its action. Afterwards each injection produced speedy vomiting in ten minutes after its administration. On every occasion the patient complained of nausea and severe frontal headache, which accompanied and followed the vomiting. The convulsions ceased as soon as sickness and vomiting occurred; so that the duration of the attack lasted only ten minutes, instead of from twenty to thirty minutes. The drug was given on ten occasions, the seizures occurring less frequently and being shorter in duration. The effects of the drug were well marked, for the pulse became very rapid, the respirations accelerated, and after the vomiting stopped the patient became prostrate, drowsy, and finally fell into a deep sleep. During this period, purgatives were administered and warm baths taken twice weekly. Menstruation returned a week before the fits ceased, after being absent for three months. No recurrence took place, and the patient's health has remained good since.

*Case 2.*—Elizabeth T., aged seventeen, had been in a hospital ward for over a year, suffering from hystero-epilepsy. By her own statement it seemed that she had suffered from "fits" since she was ten years of age, i.e., for the last seven years of her life. Her body was well nourished, and she suffered from no organic disease. She was very reserved, shy, and diffident. She seldom entered into conversation with anyone, and would laugh instead of responding to questions asked of her. The hysterical dyscrasia had always been pronounced in this case. She would frequently cry and laugh alternately, would pass large quantities of clear urine,

and be troubled with the "globus hystericus." On one occasion she retained her urine for two days, until the bladder was greatly distended, and submitted without compunction or hesitation to the employment of the catheter. Latterly she manifested a tendency to excitement and unruly conduct, and in a few days became so restless and violent that she had to be confined in an asylum. Her mind was then confused and obtuse, so that to simple questions asked of her she either gave no answer or an incoherent one. She imagined strange things, had peculiar delusions and deceptions associated with the excitement, and incoherency, which may be characterised as hysterical mania. She was dangerous to others, but not suicidal. As the maniacal symptoms passed off, the convulsions reappeared after being absent throughout the period of excitement. Apomorphia was used as in the previous case, and it again proved of great service in diminishing frequency and duration of the convulsive seizures.

*Remarks.*—Mental perturbation was marked in both cases, evidently existing in the first as a result of the uterine function being in abeyance. Also in the same case the vasomotor system seemed to be at fault, for, on pricking the skin, no blood appeared from the cutaneous arterioles and capillaries. The general nutrition and the condition of the secretions were, however, consistent with health. The drug no doubt produced emesis by being carried into the circulation, to the great nervous centre in the medulla oblongata, where, by its action, it excited vomiting, besides causing nausea and depression of the circulatory system, and diminishing the muscular and nervous power. It therefore acts as a direct emetic upon the so-called vomiting centre, but as an indirect emetic in relation to the stomach. The value of apomorphia as an emetic was particularly well marked in both cases, although the dose may be considered small. Also, prostration, drowsiness, and sleep followed, after the vomiting ceased.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

#### MILD CASE OF SYMPATHETIC OPHTHALMITIS FOLLOWING WOUND OF THE CORNEA WITH PROLAPSE OF THE IRIS—IRIDECTOMY—RE- COVERY.

(Under the care of Mr. GUSTAVUS HARTRIDGE.)

PERCY C., aged ten, was brought from Southampton to the Royal Westminster Ophthalmic Hospital on June 30, 1883, having, nine weeks previously, injured his right eye by the slipping of a knife, with which he was cutting his boot-lace. He was immediately taken to a doctor, who kept it bandaged for a week. The vision has been impaired since, but the eye remained comfortable till the last week, when slight redness appeared, with pain and watering. He complains now that he does not see so well with his *left* eye as formerly.

*Present Condition.*—Right eye: A cicatrix about six millimetres long on the lower and inner part of the cornea, extending slightly into the sclerotic; iris prolapsed; anterior chamber shallow; pupil pear-shaped and drawn towards the prolapse; some tenderness, with slight ciliary redness; no apparent iritis; lens uninjured; vision  $\frac{6}{60}$ ; J. 8; Tn. Left eye: Slight ciliary redness; good anterior chamber; iris looks somewhat hazy, but acts moderately to light; vision  $\frac{5}{20}$ , not improved with glasses. On applying atropine the pupil dilates well with the exception of one slight posterior synechia; there are numerous very small dots of lymph on the posterior surface of the cornea, which are seen by the oblique illumination, but better still with the direct ophthalmoscopic examination; with a strong convex glass behind the instrument the dots show up as small black spots on the background of the illuminated fundus. The disc looks slightly hazy.

The boy was admitted as an in-patient, and a large iridectomy done at the seat of the prolapse. The iris was divided on both sides of it, but a part was so incorporated in the cicatrix that it could not be removed. Vaseline



containing two grains of atropine to the ounce was applied, together with pad and bandage. Treatment for left (the sympathising) eye was atropine and exclusion of light by keeping the patient in a dark room.

July 2.—Patient seems comfortable. Right eye not looked at. Left, pupil widely dilated; the synechia has given way.

6th.—Right eye quiet; iridectomy-wound healed; anterior chamber good. Left eye, keratitis punctata well marked; disc somewhat more hazy.

13th.—Right eye looks well; vision  $\frac{6}{24}$ . Left eye, vision  $\frac{6}{24}$ ; all ciliary redness gone; keratitis punctata disappearing; well-marked papillo-retinitis. Atropine and exclusion from light continued.

20th.—Right eye, vision  $\frac{6}{24}$ . Quite quiet. Atropine and bandage discontinued. Left eye, vision  $\frac{6}{24}$ ; spots on cornea almost gone; papillo-retinitis about the same. To be kept shaded, and atropine continued.

A few days later he was made an out-patient.

August 10.—Right eye well; vision  $\frac{6}{24}$ . Left eye, vision  $\frac{6}{18}$ ; keratitis punctata gone; no change in papillo-retinitis.

24th.—Right eye, vision  $\frac{6}{24}$ . Left eye, vision  $\frac{6}{12}$ ; cornea quite clear; papillo-retinitis subsiding. Atropine discontinued. To wear a shade for a week or two longer.

Has not been seen since last note. His friends were cautioned to bring him immediately on the slightest appearance of irritation in either eye.

Remarks (by Mr. Hartridge).—The point of interest in this case was the difficulty of deciding whether enucleation of the exciting eye should at once be performed, or an attempt made to save it by a large iridectomy. I decided to adopt this latter course, being influenced in my decision by the following reasons:—First, that the sympathetic inflammation was of a mild type. Second, by the opinion expressed by Mauther on this subject in his work on "Sympathetic Diseases of the Eye," "that iridectomy on the eye causing sympathy is only to be done when the iris has become incarcerated in the peripheral wound in the cornea, for then we may succeed in saving both eyes; in any other condition iridectomy cannot be advantageously substituted for enucleation."

## NORTH-EASTERN HOSPITAL FOR CHILDREN.

### ERYSIPELAS FOLLOWING THE USE OF CHRYSOPHANIC ACID FOR RINGWORM.

(Under the care of Mr. RICKMAN GODLEE.)

[For these notes we are indebted to Mr. J. A. West, Resident Medical Officer.]

ELIZABETH M. G., aged five years, attended the hospital on September 25, 1883, with extensive tinea tonsurans. Some ointment containing chrysophanic acid (grs. v. ad 3j.) was ordered. She continued to show herself once a week until October 15, up to which time there appeared to be some improvement.

October 22.—The patient was now brought again. There was a blush of bright redness, of an erysipelatous character, extending over the forehead, cheeks, and back of the neck. She was not, however, suffering from any of the constitutional symptoms of erysipelas; she had apparently no fever, and had a good appetite. A saline mixture was ordered; the chrysophanic ointment was stopped, and zinc ointment substituted.

25th.—The blush was not so bright as on former visit, and the erysipelas was clearly not spreading; the same extent of surface was affected as at last visit. There was slight desquamation.

29th.—The erysipelas has disappeared from the forehead, and is now only visible on the cheeks and neck. Desquamation is more pronounced.

November 5.—The redness has quite disappeared. The ringworm remains *in statu quo*.

Remarks (by Mr. Godlee).—The case is of value as an example of an erythema starting from the slight inflammation produced by an external application without an external wound. It is also interesting to note that, as in the case of some of the erythemata following surgical operations, the constitutional symptoms were either very slight or altogether absent. It seems to be precisely similar to those instances which have long been recognised of general erysipelas following, say, the local application of arnica lotion.

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THE MEDICAL TIMES is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.

# Medical Times and Gazette.

SATURDAY, DECEMBER 8, 1883.

## THE HOMES OF THE RICH.

PUBLIC attention is being projected so forcibly just now on to the homes of the poor, that intellects of the boomerang order, if one may use the expression, are apt to find themselves flying in exactly the reverse direction, and lighting upon the rooftrees of the rich. To be one of a shoal all swimming one way is to some men so intolerable, that they need no pretext to start them off towards the opposite point of the compass. On the present occasion Mr. Alfred Austin has been the first to leave the shoal; but, though he entitles his paper in the current number of the *National Review* "Rich Men's Dwellings," he is much less concerned with the houses than with their tenants. And yet there is much to be said worth saying about the homes of the rich from every point of view. Nothing perhaps can be so perfect, in theory, as the house of a wealthy man in England. Science and art have given of their best to make it an abode of refinement and health. Architects, hygienists, artists, and antiquarians have all contributed from their stores of knowledge and taste to make it possible for a rich man to have, if he wishes it, a house in which no critic could find a flaw. This being so, it is strange that, in practice, such a large proportion of rich men's dwellings should fall so far short of the theoretical standard of excellence. Their artistic shortcomings are a matter of common remark, but their sanitary defects, though they have been frequently pointed out, are less generally admitted. The science of sanitation is always so far ahead of the practice, that to find a house in town or country which would entirely satisfy a strict sanitary critic may be reckoned an impossibility. For if a house be practically perfect to-day, by to-morrow science will have raised her standard, and will require a higher perfection still. But though disease has a sharp eye for the smallest loophole in sanitary defences, it would be foolish to dwell on these minor defects in the homes of the rich while there remain so many glaring and dangerous instances of sanitary ignorance and neglect. The chief wonder is that outbreaks



of enteric fever are not much more common in the best parts of London than they are. For, as Dr. Kelly pointed out last week at the Parkes Museum, it is the best houses that are most liable to be infected with this fever through the medium of the drains.

It is only fair to admit that, as the result of persistent preaching, a large number of rich men's houses have been put during the last ten years into as good a sanitary state as the conditions admit, but nevertheless the proportion of unhealthy houses in the best parts of London still remains much greater than is usually suspected. In the older streets of the West-end it is probable that a perfectly sanitary dwelling could only be obtained by rebuilding from the basement. The old brick drains have in many cases been leaking for years, and even where they have been replaced by earthenware the whole subsoil still remains permeated with the filth of generations. But, apart from these hopeless houses, there are many in which either no attempt has been made to place them in a healthy condition, or the most laudable intentions have been frustrated by the ignorance and incompetency of the British workman. In some cases, hundreds of pounds have been spent in adding to the magnificence of the abode, and every new fashion has been introduced except those alone which rest on a scientific basis—the new fashions in drainage, heating, and water-supply. A few years ago there was an exquisite little house in Mayfair, which has figured as the “bijou residence” of the heroine in half a dozen novels of fashion. The decorator's art had been lavished upon it. Its tiny wooden stairs had been pulled down and replaced by marble, the walls of its miniature rooms had been covered with the costliest hangings, and the door-panels had been painted by the brush of a well-known artist; but behind the marble staircase, and separated from it only by a flimsy partition, there was left a leaky soil-pipe oozing with foulness. The result of course was that heroine after heroine lapsed into the same interesting condition of delicacy, and was forced to transfer the scene of her triumphs elsewhere, while the house once so favoured of fashion passed metaphorically into the bad odour in which it had so long been literally. In a fashionable square in another part of the West-end it is still quite common to find the water-closet placed in the very centre of the house, and ventilating on to the stairs. In one of these chambers of horror the pan was found cracked, and beneath it was the accumulated leakage of years. In another house a few doors off, half a year's rental, or £300, had been spent on repairing the sanitary arrangements, but unfortunately the builders, with crude conceptions of the principles of hydrostatics, had placed the outlet of the house-drain below the level of the sewer, which, six months later, it was found necessary to lower at the cost of another half year's rental. In an adjoining house a similar sum had been spent on drainage, but case after case of diphtheritic sorethroat occurred, until a second costly revision of the sanitary arrangements became necessary. Even where the utmost has been done to secure a healthy home, and with success so far as the home itself is concerned, the same care has not been extended to the stables, and a source of danger is thus left beneath the very windows. The mews in many of the best parts of London are, in fact, still in such a hopeless condition that nothing short of entire rebuilding would bring them up to the proper sanitary standard. In other cases, crowded and unhealthy courts are allowed to remain under the back windows of princely houses. One of the most fashionable sets of flats in the West-end looks upon a foul purlieu in which fatal outbreaks of diphtheria periodically occur.

These defects are so glaring that one would think that it would be only necessary to point them out to secure their

immediate removal. But sanitarians have found that it needs a much sharper reminder than mere demonstration and advice to induce people to spend money on things which make no show. It is evident, from the merest glance at the rooms of many of the most luxurious houses, that their tenants have not even an elementary idea of the conditions of health. Their sins of commission are more monstrous even than their sins of omission. It is hardly too much to say that many fashionable drawing-rooms are so assiduously converted by their tenants into nests of disease that one would think that health was to them an object of aversion. The thick-piled carpets, the Eastern rugs, the heavy plush curtains disposed wherever it is possible to fix them, the piles of cushions, the dying plants in waterlogged flower-pots, the bundles of pampas-grass, the long trails of dirty ivy, the numberless pictures inclining from the walls—all constitute traps for catching dirt and holding it. In a room so furnished a healthy atmosphere is impossible, whatever the efforts made to secure cleanliness. But the fact is that in many of these houses so much is squandered on maintaining a show of lazy men-servants, that little is left to spend on those handmaidens of health, the housemaids, and dust is left undisturbed week after week because there is no one to remove it. This is not perhaps the case in the houses of the most wealthy; but where the income is insufficient to meet both show and cleanliness, it is naturally cleanliness that goes to the wall. Amongst the *nouveaux riches*, many of whom have but lately emerged from a class in which the hatred of dirt is not the instinct that it is amongst the real upper classes, the defiance of sanitary laws is startling, and it would be well for some of them if, instead of hurrying off to the East-end to join in the fashionable crusade, they would stay at home, and receive instruction in cleanliness from some of those very poor whom they now seek to instruct. A sanitary mission to the West-end would be an enterprise deserving of every support.

#### THE INTERNATIONAL HEALTH EXHIBITION.

THE great success of the Fisheries Exhibition has, without doubt, sown the seeds of hope and emulation in the breasts of show-promoters of all kinds; and one of the early blossoms promises to be an International Health Exhibition. The Common Council has voted a sum of money for the purpose, the Prince of Wales gives it his powerful support; and thus, fertilised by external gold and fostered by princes, there is every prospect of vigorous growth. We will not ask, “*Cui bono?*” but would emphasise a few points which may not strike the crowd standing before the booth, stunned and confused it may be by the flourish of trumpets and drums and the loud voice of the showman. What have health exhibitions and museums hitherto done to elevate and popularise the science of hygiene? So far as we can see, they have impressed the erroneous notion on the laity that it is mainly a science of water-closets and drain-traps; so much so, indeed, that society alludes euphemistically to the conduits and cloaca as “sanitary appliances,” and associates with hygiene no higher ideas than those connected with slopping, dusting, and scavenging. Health Exhibitions have hitherto been mainly huge advertising machines; the happy brooding ground of everyone who had bitters, biscuits scents, soaps, sauces, stoves, and a thousand other things to sell, and wished to allure the public to buy. The time has come to put an end to all this, and it is to be hoped that the promoters of the present Exhibition will not neglect the splendid opportunity they have of raising the whole character of such displays, and contributing to the real advance of the study of hygiene. The science of health is so interwoven with all matters of civilised life and culture, that its limitations



and boundaries are of an extremely indefinite character. There is no article of food or of drink, there is no drug, there is no kind of clothing, no machine, no manufacture, no trade, occupation, or manner of living, which may not be dragged or forced into some near or remote connexion with hygiene. It is claimed that of the City livery companies at least fifty are connected with one or other branch of hygiene, and could appropriately take part in the proposed Exhibition. In fact, from the miscellaneous-store-like appearance of sanitary exhibits, the conclusion is inevitable that all Exhibitions, from the International of 1851 to the Fisheries of 1883, have been so many shows of "hygienic appliances." And yet the new health-science never has been and never can be placed in a concrete form. The battle of man and germ, the subtle influences of soil and sky, the habits and customs of individuals and races, lie at the very basis of preventive medicine, but are for the most part incapable of popular illustration, and decidedly cannot be displayed in the same way as pickles and Banner's crows. Nevertheless, we are not disposed to deny that, with great trouble and judgment in the selection of subjects for exhibition, with ruthless pruning of the exuberant plumbing and engineering element, and with absolute rejection of quack drugs and nostrums of unknown composition, it is possible to open an Exhibition that shall be interesting, instructive, and in some degree representative of the sanitary science of the nineteenth century.

#### THE PLACE OF BOTANY IN THE CURRICULUM.

As a consequence of the ever-increasing expansion of the medical curriculum, the exact position and scope of botanical teaching have been, for a considerable period, more or less undefined, and great difference of opinion has been expressed on all hands as to the possible advantages to be derived by the medical student from the study of this branch of biology. On the one hand it was said to encourage habits of accurate observation, to illustrate and enforce the principles of logical classification, to be useful in the study of the *materia medica*, and to be essential to the general scientific culture of the medical practitioner. Its opponents looked on it, on the other hand, rather as an obstacle to the study of other and more important subjects, and would have preferred to have either expelled it altogether from the medical course, or relegated it to the period before the commencement of medical studies. This science, indeed, as it was presented to the student, had many enemies, and but few friends. For much of this unpopularity botanists have themselves to blame. In former days, we venture to think, the plant was too much considered from the merely æsthetic point of view. The flower had been elevated to an unnatural and exaggerated position. Its various forms and modifications were dwelt on with careful and tender regard, until the whole subject became buried under a mass of uninviting nomenclature, and the most essential elements for the successful prosecution of this science appeared to be a good memory and a smattering of Greek. Just as in Covent-garden Market it is the custom to pluck off the anthers of lilies in order that the golden-brown pollen may not sully the pure whiteness of the perianth, so, in the botanical lecture-theatre, the study of function had become almost entirely subordinated to the admiration of form. Of late, however, a considerable reaction against this emasculating tendency has begun to make itself felt. The physiological investigations of Darwin have slowly produced effect, and have permeated with their influence the whole science of botany. The various methods of fertilisation, the development of organs and their adaptation to function—in short, the study of the habits and life-history

of plants in general,—have gradually assumed paramount importance. The brilliant light thrown on the etiology of disease by modern research in the domain of the lowest forms of vegetable life has, in addition, directed greater attention to the conditions of life and of multiplication of these minute organisms. Physiological botany has now been placed on a sound and scientific basis, and it is on this ground that it must continue to hold its own in the general teaching of medicine. Plants must continue to be studied as illustrations of a special aspect of life, and the study of the physical and physiological laws underlying the phenomena of plant nutrition, of tension of tissues, and the mechanics of growth will form a valuable and most instructive section of general physiological training. Many interesting analogies between the functions of plants and animals at once present themselves to us. The researches of Dr. Burdon Sanderson on the electric currents of *Dionæa*, the influence of iron in the soil and of light on the formation of colouring matter, the movements and processes of nutrition of plants, all illustrate points of analogy with allied functions in animals, which will in the future go far to elucidate many obscure problems in both kingdoms. The increasing importance of the study of function, and of form as modifying function, is well shown by the more recent changes in the Botany Syllabus of the Preliminary Science Examination of the University of London. The physiology and histology of plants are here made of primary importance, and certain special types of plants are selected for more detailed investigation. The microscopic examination of plant structure should take its place by the side of the general histology of animal tissues. Sections of the various organs and structures of plants are easily prepared, and can be readily stained by various aniline dyes, thus producing most beautiful and instructive specimens. The structure of cells, and the various modifications and thickenings of their walls, the formation and arrangement of fibro-vascular bundles, the structure of ovules and pollen, and many other points of extreme morphological and physiological interest, may thus be amply illustrated. Physics and chemistry must also be impressed into the service of botany; and this branch, from being, as heretofore, the mere handmaid of the *materia medica*, will rise to be one of the widest and most all-embracing subjects of the medical course. It is along these lines and by such methods that we may hope to see botany finally rescued from that cloud of oblivion which but lately threatened to overwhelm it.

#### CLINICAL PAPERS.—No. II.

##### ON FUNCTIONAL DISEASE.

THE expression "functional disease" has given rise to much confusion in medical science, and the meaning attached to it varies according to the preconceptions of individual observers. Everyone fancies he knows what is implied by the term, but finds it difficult to express its exact signification in words. There are some who consider that there is a place in nosology for such a class of disorders, and others who altogether deny its existence. As this is a subject of great practical importance, no excuse is made for directing attention to it, with the view of attempting to determine the significance of the word "functional" as applied to abnormal states, to examine the position it occupies in the classification of diseases, and to ascertain the nature of the disorders which it includes as distinguished from other maladies.

If we review the entire field of pathology, two prominent classes of disorders may be recognised. First, there are those maladies which are the obvious result of structural degene-



ration. This tissue-change is visible and can be demonstrated, and it bears a constant relation to the abnormal conditions which accompany it. The symptoms and signs of such maladies disappear when the alterations which caused them no longer exist. In other words, there is a gross lesion in some part of the economy, whose powers of irritation or destruction induce not only those signs resulting from the direct implication of tissue, but, as a sequence, bring about increase, diminution, or perversion of the functions of the nervous system, to the varied phases of which we give the name of symptoms. Such diseases are termed organic in contra-distinction to those which, although they may present exactly similar conditions in many respects, essentially differ from them in others. These last maladies are characterised by the absence of any definite structural alteration to account for the abnormal symptoms, and not only are such changes impossible to discover, but the nature, progress, and termination of the complaint seem to indicate that they are not in existence. In short, the only evidence of any departure from health is the development of the varied abnormalities of innervation which appear to have arisen independently of any demonstrable organic lesion. It is to this class of disorder that the term "functional" has been given. The two forms of disease are well recognised in practical medicine, and are broadly distinguished from one another not only by the pathological difference between them, but by the complete clinical picture of the affection. There is no exact line of demarcation, the one blending with the other, and both being frequently associated in the same patient. The first is pathologically definite, and the phenomena accompanying it are comparatively simple of comprehension. The last is anatomically obscure, and its indications are more difficult to explain.

The exact definition of functional disease is, then, impossible, and a distinction between the disorders belonging to this class and other affections is an arbitrary one without definite limits, which, as our knowledge advances, will probably require modification. The former may, however, for all practical purposes, be generally described as morbid states, usually apyretic, in which there is an exclusive, or at least a predominant, modification of the functions of the nervous system, presenting the double peculiarity of being produced in the absence of any appreciable lesion, and of not by itself necessarily inducing profound or persistent structural change.

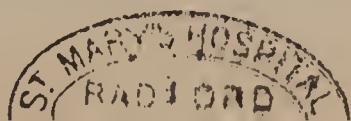
With regard to the first part of this definition, we may assume that the indications of functional disorder are nothing more than simple perversion of innervation in a variety of forms. Physiology teaches us that the nervous system, with its physical and functional connexions, constitutes the basis of material life. It is the instrument of the intellectual faculties, the receptacle and conductor of sensation and motility, and on it depends the performance of the organic functions, including respiration, circulation, secretion, nutrition, and animal heat. In other words, on its integrity depends that of the entire organism. Pathology confirms this fact, as evidenced by the important rôle the system plays in the production of divers morbid states; for as abnormal symptoms are the phenomena which mainly determine the existence of disease, it may be stated that these are represented almost exclusively by disturbances of the function of innervation. All diseases, therefore, from whatever cause or of whatever kind, are intimately associated with the nervous system, through the agency of which they are made apparent to the senses. It is upon the perversion of intelligence, sensation, motility, and the sympathetic functions that we rely for our appreciation and knowledge of disease. On this reasoning most maladies

would come under the denomination of functional, and it must be admitted that, if all diseases do not bear this appellation, the symptoms of most of them may be so characterised.

The arbitrary distinction is chiefly to be determined by the consideration contained in the second part of the general definition, namely, the absence of a morbid lesion. In so-called functional complaints the minutest search fails to discover any structural change in the tissues of the body, and their nature would not lead us to expect that such would exist. Symptoms—another name for abnormal nervous perturbations—are simply the modification of healthy actions, an increase, diminution, or perversion of natural functions. An ordinary act, motion, or sensation is not accompanied by any visible alteration of structure, although we may hypothetically assume that it is represented by molecular changes in the nerve-tissues beyond our powers of appreciation. Should such acts, motions, or sensations become irregular, as in the transport of rage, the tremor of fear, or the palsy of shock, we may conceive there would be corresponding molecular change, but we could not hope to demonstrate such a condition. Finally, should these modifications become permanent, as in chorea, old age, or certain forms of paralysis, we call the results abnormal symptoms, but we do not and cannot expect to demonstrate the minute alterations representative of them. It is to these symptoms, consisting of a perversion of natural activity as a result of molecular movement which we cannot anatomically display, that we give the name of functional, in distinction from those which are obviously the result of new formation or degenerative process.

From the preceding considerations it will be apparent that the symptoms alone in both classes of disease under discussion may be identical. This is readily understood when it is remembered that in reality both are functional in the strict sense of the term. In the one case, however, they are, as it were, idiopathic; and in the other, the secondary result of a pre-existing abnormal tissue-change. A failure to display a morbid lesion is not necessarily a conclusive proof of functional disease, nor on this account does it militate against the general principle already laid down. The present state of science does not always enable us to anatomically demonstrate every abnormal state; and there are certain maladies which, although as yet no lesion to which they may be attributed has been discovered, we do not place in the category of functional disorders, because their clinical course seems to suggest that if our powers of histological observation have not met with definite results, changes probably are present which improved methods of research will subsequently determine. Again, it is unnecessary to point out that the presence of organic disease does not negative the existence of functional disorder; on the contrary, the two are frequently associated, and a most common form of the one in a given locality is the presence of the other at a remote part of the body.

The general definition between organic and functional diseases, if difficult to express in words, has been recognised with tolerable accuracy in practice. In the former the gross lesion is accompanied by signs corresponding with its extent and degree, and it causes symptoms which bear a close relation to, and are dependent upon it. In the latter the conditions are those we should expect to find as the result of a simple perturbation of normal function. The symptoms, although they may be the same in appearance, differ in nature and degree, and are characterised by being produced by causes which would not be followed by gross tissue-change, by extreme mobility, by their readiness to undergo change, and by the possibility of their sudden and complete recovery without leaving a trace of their existence.





Whether such unseen molecular alterations are capable of ultimately leading to demonstrable change of structure, we do not know. Experience tells us that such is not necessary, as a person may be invalided for years with the most violent of neuroses, and in the end quickly and completely recover.

It is not to be inferred from the foregoing observations that, because the class of functional diseases thus differs from that of organic diseases, they are on that account maladies of no moment, and to be placed low in the estimation of the physician. On the contrary, although it may be admitted that the latter are the more dangerous to life, it must also be conceded that the former are accompanied by the greatest amount of suffering and distress. Happily, on account of their nature, functional disorders offer the most encouraging prospects for treatment, and many of the triumphs of medical skill have been effected in this direction. At the same time it must not be forgotten that frequently these affections assume the most severe and intractable forms, and defy all the efforts made for their relief.

The diagnosis between the two conditions under consideration often presents great difficulties, due to the fact that the symptoms of functional disorder may in every respect exactly simulate those of organic disease. A distinction between them is obviously a matter of the highest practical importance. Thousands of persons have been incarcerated for life as hopeless invalids, who by a little energy and judgment might easily have been cured, and others have been neglected or ill-treated as suffering from trifling and imaginary complaints, who in reality were the victims of intractable disease. Such errors can only be avoided by an advanced knowledge of the nervous system.

△

## CHRONICLE OF THE WEEK.

THE chief event of Tuesday's meeting of the Pathological Society was one of no small importance, for it was nothing less than a public recantation by Dr. Wilson Fox of his views as to the communicability of tubercle by inoculation. Some sixteen years ago, in conjunction with Dr. Burdon Sanderson, Dr. Fox made a series of experiments on guinea-pigs and rabbits, and succeeded in producing tuberculosis by the inoculation of such different materials as cotton-fibres, bits of wood, and portions of putrid muscle. Until the publication of Koch's results the view naturally arising out of these experiments—viz., that tubercle could be produced by the irritation of other substances than tubercular matter—was generally accepted in this country. After Koch's discovery, however, Dr. Wilson Fox felt that it was incumbent on him to make some fresh inquiries. Dr. Dawson Williams accordingly repeated all the old experiments, with more strict precautions, perhaps, as to cleanliness, and failed to produce tubercle except by the introduction of tubercular matter. This being so, Dr. Wilson Fox has, in a manner which greatly redounds to his honour, lost no time in making public his altered opinion to the effect that tubercle can only be produced from tubercle.

THE subject brought forward by Dr. Samuel West at the same meeting—viz., the treatment of suppurative pericarditis by free incision—attracted a good deal of attention during the early part of the year, when he brought his case before the Royal Medical and Chirurgical Society, and we have but little doubt that practitioners will be less afraid in the future of taking active measures to empty the pericardium in such

cases than they have been heretofore. Mr. Symons made an important contribution towards a better understanding of the causes of secondary hæmorrhage, by showing the changes that had taken place in some arteries after injury and amputation; and Mr. Barker opened up the subject of tubercular disease of the tongue by a carefully recorded case with post-mortem and microscopic examinations. We shall hope to hear more upon the same topic at the next meeting, as the discussion was necessarily cut short owing to the lateness of the hour. The President opened the proceedings by handing round a drawing of the foot of a woman with curious tumours on her toes, which seemed to be in some way associated with the sweat-glands, and possibly owned for their cause a peripheral neuritis.

THE usual monthly meeting of the Obstetrical Society of London was held on Wednesday evening last, December 5. The time was entirely occupied in the reading and discussion of an elaborate and, it is scarcely necessary to say, a learned and able paper by Dr. Robert Barnes, on the mechanism of labour, especially in reference to what is known as the "Naegelé obliquity," i.e., the obliquity of the foetal head on its longitudinal axis, by which the side of the head that lies anterior—the right side when the head occupies the first position—dips lower in the pelvis than the other. This obliquity, as its name implies, was first described by Naegelé, and its existence was for a long time accepted as an established fact by obstetricians. It is admitted now by all that this obliquity takes place in labour with contraction of the brim, and that it is present *after* the head has entered the pelvic cavity. But it has been denied, by Duncan and Leishman in this country, and by some German writers, that any such obliquity exists until the head has advanced into the pelvic cavity. They maintain that in natural labour the head enters the brim perpendicularly to the plane of the brim, without any inclination either to one side or the other. The object of Dr. Barnes's paper was to controvert this view, and to show that the head must, and does, enter the brim with the obliquity which Naegelé described. We shall in due course publish a report of the meeting, from which our readers will be able to learn the arguments advanced for and against this thesis. The paper was discussed by Dr. Duncan, who, however, limited his remarks to a few only of the points raised; Dr. Galabin, who, in a paper read before the Society some years ago, showed the mechanical advantages gained by such obliquity, and who now exhibited some mathematical diagrams illustrating his views; Drs. Champneys, G. Roper, and Wiltshire. The President, after commenting upon the paper, expressed the gratification with which the Society again saw among them Dr. Wiltshire, who had been for some time prevented by severe illness from attending the meetings. In this we are quite sure all our readers will heartily concur.

PROF. HUXLEY, as President of the Royal Society, delivered on Friday se'nnight the first of what it is to be hoped may be a long series of presidential addresses. Amongst the Fellows who had died in the past year he had to mention "the venerable Sir Thomas Watson, the very type of a philosophical physician." Later on, in the course of his address, he expressed his regret that the Government had not sent out a scientific mission during the Egyptian cholera epidemic. "It is assuredly, in the present state of science, something more than a permissible hypothesis that the cause of cholera may be an organic living *materies morbi*, and that the discovery of the proper curative and prophylactic measures will follow upon the determination of the nature and conditions of existence of these organisms. If



this reasoning is just, it is certainly to be regretted that the opportunity of the outbreak of cholera in Egypt was not utilised for the purposes of scientific investigation into the cause of the epidemic. There are able, zealous, and courageous young pathologists in this country who would have been willing enough to undertake the labour and the risk; and it seems a pity that England should leave to Germany and to France an enterprise which requires no less daring than Arctic or African exploration, but which, if successful, would be of a thousand times more value to mankind than the most complete knowledge of the barren ice wastes of the pole or of the sweltering barbarism of the equator. It may be said that inquiries into the causation of cholera have been for some years conducted in India by the Government without yielding any very definite result. But this is, perhaps, rather an argument in favour of, than against, setting fresh minds to work upon the problem." After the address the medals were presented, and the officers for the year elected. The medical profession, though it provides the Royal Society with its President and one of its Secretaries (Dr. Michael Foster), is not so well represented in the Council as it used to be, Sir William Gull and Dr. Lauder Brunton being the only medical members.

As to the cholera mission *manqué* on which so many vain reports have been expended, the Government is stated to have been much exercised by the criticisms which have been passed upon its remissness in that matter. But there is still time to repair the neglect. Dr. Koch and his assistants are at work at Calcutta, which they have found a more promising centre for their operations than Bombay, and they would no doubt welcome some "fresh minds" from England to work in friendly rivalry side by side with them. There is every argument for a scientific mission now that there was in the autumn—except one: that the public, having forgotten their panic, would be less inclined to pay for it. But that, unfortunately, is an argument that tells very strongly with a Government. The defeat of cholera might mean the victory of the Conservatives.

THE weekly lecture at the Parkes Museum was delivered last week by Dr. Charles Kelly, the King's College Professor of Hygiene, who chose for his subject the connexion between zymotic disease and sanitary defects in houses. Dr. Kelly, as is well known, when, some years ago, he gave up the promise of a first-class consulting practice in London to take under his charge the health of West Sussex, brought to the study of hygiene a wider medical culture and a higher standard of ability than is common amongst health officers, cultured and able as many of them are. Since then his annual reports have been valued as models of sanitary work, and the peculiar nature of his district has given him a more varied experience than falls to the lot of many of his colleagues in his special branch of science. Thus much was expected of him when it was known that he was to lecture at the Parkes Museum. His address was valuable, no doubt, and admirably adapted to the occasion, but there was little of novelty about it. His inclination to the belief that enteric fever may develop *de novo* is something of a new, or at any rate of a revived departure, but it is supported by much practical experience, as well as by the later developments of the germ theory. The practical result of an openness of mind on this point is obvious. If the poison may develop afresh, then it is equally, if not more, important to remove the predisposing causes of such development than to disinfect every typhoid stool; and attention must be paid quite as much to what is allowed to remain in the sewers or in the ground as to what is discharged into them.

If sewage is allowed to remain and decompose in the sewers, we may, on this view, be liable at any time to outbreaks of typhoid, but in a properly constructed sewerage system every particle of faecal matter ought to have left the sewers within a few hours of its entry into them. Thus the care of the sewers—a hitherto much-neglected subject—becomes one of the most pressing duties of the hygienist. There is less need to lock the stable-door—that is, to trap your house-drain—if you cut off the supply of thieves.

THE ceremony of presenting Mr. Jonathan Hutchinson with the testimonial which has been subscribed to by past and present students of the London Hospital took place on Thursday, the 29th ult., at the Holborn Restaurant. Sir Andrew Clark officiated both as chairman at the presentation dinner, and as representative of the subscribers in handing to Mr. Hutchinson the trust-deeds of the "Hutchinson Prize" Fund and the silver centrepiece in which the subscriptions have been invested. Both Sir Andrew Clark in presenting the testimonial, and Mr. Jonathan Hutchinson in receiving it, made speeches of great interest. Both were retrospective. Sir Andrew Clark dwelt on the early days when Mr. Hutchinson was "an earnest, thoughtful, fervid student in the wards of the Hospital"; and Mr. Hutchinson himself took a further dive into the past, and recalled his early fruitful study of the poets, his apprenticeship to a conscientious practitioner, and his education at the small medical school at York, to each of which he attributed some share in his subsequent development. We should have said that it is Mr. Hutchinson's great and exceptional merit to be what he is in spite of these unpromising beginnings. They would have ruined most men.

THE mild autumn, which has just come to a close, has had a favourable influence on the death-rate. The average mortality for the months of October and November was, in 1881, 20.8 per 1000, and in 1882, 20.5. This year it has not risen above 19.9. Last week, though the death-rate was 21.8, the number of deaths from the zymotic and the respiratory class were in each case more than 50 below the corrected ten years' average. There were, nevertheless, as many as 59 deaths from scarlet fever—a figure implying an amount of suffering and a loss to the community, for the diminution of which it is surely time that the State should institute some comprehensive organisation.

"Is the executioner right?" This was the rather sensational problem put by a medical contemporary a week or two ago, and it has received a speedy answer in the negative under painful circumstances. We have no desire to enter into a discussion of the scientific aspects of hanging. The poor culprit who was so clumsily hanged at Liverpool on Monday that his heart continued to beat for eight minutes after the drop fell, may have died of strangling, as Dr. Barr maintained, or he may have been killed *secundum artem* by the stretching of his medulla oblongata, and the inhibition of his respiratory movements. But in either case public opinion will demand a reversion to Marwood's method. The late executioner nearly always succeeded in fracturing or dislocating the vertebræ, which is evidently a much more effectual way of arresting respiration than the perhaps more scientific method of stretching the medulla. In most cases it was probably the third cervical vertebra that was fractured, for this was found to be the case in four of the "Invincibles" hanged by Marwood. The fact is that hanging is not a science, but an art, and is better done by rule of thumb than by theory. We know that the cleverest scientific men will sometimes fail in bringing off an experiment



before an audience; but though it raises a smile, their failure does not shake our belief either in them or in the general principle they intended to illustrate. With Mr. Binns it is different. In hanging, the success of the experiment is everything.

The French medical journals for the current week have a goodly array of original communications. In the *Archives Générales de Médecine* we find a case of Fibrous Pseudarthrosis of the Femur successfully treated by Resection and Suture of the Bones, by Dr. E. Mathieu; a contribution to the study of Acute Peritonitis in the region of the Umbilicus, by Dr. Alphonse Goix; a communication on Peritendinous Cellulitis of the Tendo Achillis, by Dr. Raynal; and the conclusion of Dr. Comby's paper on Pulsating Empyema. In the *Progrès Médical*, M. Terrillon treats of the Differential Diagnosis of Syphilitic Gummata and Cold Abscesses; M. Troisier continues his paper on Subcutaneous Rheumatic Nodules; M. Mathieu has a note on the History of Strumous Pseudo-Elephantiasis; M. Feré contributes an article on the Salaam Convulsion; and Dr. Comby one on Xeroderma Pigmentosum. In the *Gazette Hebdomadaire*, M. Muscarel deals with the Treatment of Diphtheria. The *Gazette des Hôpitaux* gives an article on Syphilitic Stricture of the Rectum. The *Revue Mensuelle de Laryngologie, d'Otologie et de Rhinologie* contains an article on Adenoid Tumours of the Naso-Pharyngeal Cavities, by Dr. Baratoux. The *Concours Médical* gives an article on Neuralgia of Dental Origin, by Dr. Aguilhon de Sarran.

THE *Centralblatt für die Medicinischen Wissenschaften* contains an original communication from Dr. Bouma, of Leiden, on the Staining of Cartilage by Saffranin. Abstracts of papers—by Eckhard, on Artificial Respiration in Strychnia Tetanus; by Kronecker, on the Formation of Hippuric Acid in Disease; by von Hösslin, on Disturbed Nutrition from Want of Iron in the Food; by Westphal, on a case of Grey Degeneration of the Central Nervous System, with remarks on Nerve-Stretching—are of chief interest. In the *Wiener Medizinische Wochenschrift*, Dr. Anton Wölfler discusses the different forms of Benign Tumours of the Thyroid; the series of papers by Dr. Herz on the Modern Medication of Diphtheria is concluded; and Dr. Biach, of Vienna, communicates a paper on the so-called Idiopathic Hypertrophy of the Heart. The *Berliner Klinische Wochenschrift* publishes an interesting account of Delivery of a Rachitic Dwarf, by Dr. Lange, of Königsberg; Dr. Penzoldt, of Erlangen, contributes to the same journal a critical article on the Diagnostic Value of Ehrlich's so-called Diazo-Reaction; and Dr. F. Semon's paper on Laryngeal Paralysis is concluded. In the *Centralblatt für Klinische Medizin* are published abstracts of papers—by Adamkiewicz, on Intracranial Pressure; by Colucci and Tizzoni, respectively, on Regeneration of Liver Tissue; by Babes, on Micrococci in Yellow Fever; by Knie (Moscow), on three cases of Gastrostomy; by Carl Schmidt, on Empyema. The *Centralblatt für Chirurgie* contains an original paper by Dr. Bouma, on a Reaction of Iodoform: abstracts of papers—by Bohn, on Skin Diseases; by Englisch, on Obliteration of Cowper's Glands; by Peruzzi, on 400 cases of Ovariectomy in Italy—are also of interest. Dr. Kaltenbach contributes to the *Centralblatt für Gynäkologie* an original paper on Episio-kleisis, with establishment of Recto-Vaginal Fistula; Dr. Brennicke discusses Vaginal Extirpation of the Uterus. Amongst the abstracts are found papers—by Lomer (Berlin), on Enucleation of Myomata; and by Budin (Paris), on the Position of Twin-Ova, and the symptoms produced thereby. A report of a late meeting of the Obstetrical Society of Berlin is also published.

### THE VOLUNTEER MEDICAL DEPARTMENT.

THE December number of the *Midland Medical Miscellany* contains, among other articles of interest, the first part of a "Catechism" upon Army Medical Organisation, by Surgeon-Major E. Evatt, M.D., A.M.D. It is intended apparently for the use of Volunteer medical officers, and will doubtless be appreciated by them. As the editor of the *Midland Medical Miscellany* complacently observes, it is "unique of its kind," and certainly contains, in a handy and pithy form, a vast amount of condensed information relative to the formation, organisation, and duties of the medical department of an army corps. That such a catechism will supply a want, we have, as we have said, no doubt, and we shall await with interest its further development. We trust, too, that it will be republished in a pamphlet form, and thus secure a wider publicity than can be insured by its appearance in the *Midland Medical Miscellany*. All interested in the Volunteer force must have observed with pleasure the growing tendency shown by its medical department towards that practical efficiency which has been already, to a great extent, attained by the combatant portion of the force. The time will soon arrive, we hope, when every surgeon of a Volunteer regiment will take pride in the full knowledge of his military duties, and in the instruction of regimental bearers and others upon whose aid, in time of actual service, he would be dependent. Any Volunteer medical officer who is anxious for instruction on the many simple, though technical, points connected with military medical organisation will find that he cannot fail to rise with a clear and sound elementary knowledge of the subject from the perusal of Dr. Evatt's questions and answers.

### AN APOLOGY FOR FOOTBALL.

THE game of football has found an able and spirited defender in Dr. C. W. Cathcart, who devoted to it the greater part of the Health Lecture which he delivered at Edinburgh on Saturday last. There are two ways in which the game may be defended—by accentuating its good effects on the physical organisation, and by minimising its risks. Dr. Cathcart made use of both methods. He obtained statistics as to the latter from forty head-masters of various schools throughout the country, and from these he found that during periods varying from two to thirty years there had been recorded 46 fractures (chiefly of the collar-bone), 93 dislocations and sprains, and 23 other injuries. These accidents had occurred amongst a total of 3540 boys. The accidents resulting from "skylarking" for corresponding periods at the same schools were—15 fractures, 47 sprains or dislocations, and 13 other injuries. These figures, which to the medical mind are full of significance, seem to show that football, which is played only during the winter, is out and out more fatal to anatomical integrity than all the forms of "skylarking," which goes on from one year's end to the other. But Dr. Cathcart claimed that the regular exercise of football prevented a much larger total of injuries occurring from irregular games, included under the comprehensive term "skylarking." Altogether, Dr. Cathcart thought that the statistics showed that at schools the risk of serious accidents from football was really small, and much less than was generally supposed. He admitted that amongst young men more serious accidents did occur, but even then it compared favourably with hunting and other outdoor sports. He thought that "scragging" and deliberate "hacking" should be stopped. Still, it should be remembered that the great beauty and attraction of football was that it was, to a certain extent, rough and, within limits, even violent; otherwise it would no be the grand winter game that it



was, available in all weathers except in frost and snow, giving exercise, short, sharp, and bracing, and offering an indescribable charm and fascination to old and young. Dr. Cathcart will be greeted with a chorus of approval from all the schoolboys in the kingdom.

#### FEVER AT GLASGOW.

THE health officer's report states that during the fortnight ending November 24 there were 571 deaths registered, as compared with 472 in the preceding fortnight—an increase of 99, representing a death-rate of 29, as compared with 24 of the previous fortnight, for a thousand living. The number of deaths from infectious diseases of children was 56, in place of 45—viz., 36 from scarlet fever, 19 from whooping-cough, and 1 from measles. There have, says the report, not been so many deaths registered from scarlet fever since the autumn of 1880; but of the 36 deaths, 16 took place in the northern district. The increase in fatal cases coincided with a diminution in the number of the known cases and in the numbers removed to hospital. This arises from the disease having invaded a higher grade in society. A suspicion arose in the minds of two medical men independently that the spread of scarlet fever was associated with a certain milk-supply. They reported their suspicion to the health officer, and gave lists of associated cases. There has, no doubt, been an unusual number of cases not associated territorially or by schools, but agreeing in being served with milk from one dairy. The addresses of all farms supplying this dairy were obtained, and on inquiry it was found that no disease existed on these farms. All the boys and girls engaged in conveying milk from this dairy, and the servants employed about the premises, were inspected and their homes visited, but with equal want of success. The history of milk epidemics of scarlet fever proves that the source of infection escapes detection oftener than in the case of enteric fever—a circumstance which is not surprising when we remember that there are cases so mild as to escape notice, and that even well-marked cases are most dangerous as sources of infection just when, according to the general practice, they cease to be patients and are what is called “quite well.” Many cases of scarlet fever, we hear, are not reported because the general public have a very decided aversion to sending their friends to hospital when suffering from infectious diseases. The result is that, in many instances, medical aid is not sought until, perhaps, the patient is in a hopeless condition. Then a doctor is called in, not because he can be of any real service to the sufferer, but simply to enable the friends to get a death-certificate. In almost every case the sufferer is in some burial or other society, or some insurance society; and it is simply for the few shillings obtainable from these that the medical man's aid is sought. As for the mere registration of the death, in Glasgow at least, anyone seems to be able to do it without a “line” from the doctor. Even in the case of sudden death the friends can register without any other step being taken to ascertain the real cause of death. We have even heard of death-certificates being accepted from medical students.

#### “DOCKING.”

WE learn from the *Veterinarian* that the question of docking has been dealt with at two of the veterinary societies. Prof. Pritchard threw down the gauntlet, boldly stating that he looked on docking as an act of cruelty, and inviting discussion, although he anticipated that it would be adverse. The event proved that he was correct in this: all the speakers defended the operation—some on the score of the accidents likely to happen from an undocked horse getting its tail over the reins, which they held to constitute a suffi-

cient cause for the practice; while most spoke of it merely as a matter of pounds, shillings, and pence, the pain being considered slight if the operation were properly performed. The general feeling appears to have been accurately given by one speaker, who said “he would be glad to see horses have the free use of all their members if practicable, and would leave them their tails if the removal of them could not increase the animal's comfort, value, or power of being safely used; but he would not do anything to lessen the value of horses without good reason.” If commercial reasons such as these are all that can be urged, and we are to recommend the removal of every structure that does not fulfil the conditions of “comfort, value, or power of being safely used,” we may look for a wholesale series of operations in the future for the removal of appendages of no value or comfort to the possessor.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-seventh week of 1883, terminating November 20, was 985 (515 males and 470 females), and of these there were from typhoid fever 31, small-pox 6, measles 7, scarlatina 1, pertussis 6, diphtheria and croup 44, erysipelas 9, and puerperal infection 3. There were also 51 deaths from acute and tubercular meningitis, 189 from phthisis, 38 from acute bronchitis, 65 from pneumonia, 69 from infantile athrepsia (21 of the infants having been wholly or partially suckled), and 27 violent deaths (19 males and 8 females). With the exception of diphtheria, epidemic diseases remain stationary; but the deaths from this disease have gradually increased during the last four weeks from 27 to 44; and during the last week the hospitals have received 30 cases in place of 19 the week before. The bronchitis of young infants is becoming gradually more fatal as winter approaches, while athrepsia is continually on the decrease. During the week there were 1150 births, viz., 574 males (407 legitimate and 167 illegitimate) and 576 females (416 legitimate and 160 illegitimate); 85 of the infants were either born dead or died within twenty-four hours, viz., 37 males (26 legitimate and 11 illegitimate) and 48 females (32 legitimate and 16 illegitimate).

#### WAXLIKE DISEASE OF THE HEART.

THE heart has hitherto had the credit of escaping, as a rule, in cases of lardaceous disease; such, at least, is the opinion that will be generally found in our text-books, either expressed or implied. That distinction, however, it has no just title to, for Prof. Hamilton states (*Journal of Anatomy and Physiology*, October) that, on examining cases of general waxy disease, he has found the heart to be affected in nearly every severe case, and sometimes when the affection is limited to a few organs. The change is one that would be very likely to escape detection by the naked eye, a slight milkiness of the endocardium in patches being the only appearance. The auricles are more prone to be affected than the ventricles, and the right more than the left. The wall of the ventricles is of a pale brown colour; it is often atrophied, and but seldom hypertrophied. All these changes are, however, very slight; but the addition of iodine brings out rounded or irregular brown stains in the endocardium, and similar brown points may sometimes be seen in the substance of the heart-wall after the use of iodine. The pericardium is usually unaffected. Thus it appears that the disease in the heart corresponds to that found in the arteries, where, as is well known, the intima and middle coats are its chief seats. On examination under the microscope, after staining with methyl-aniline, the waxy material is found in the endocardium in



irregular masses; it appears to have infiltrated the fibrous tissue of the endocardium, and to have pushed the fibres aside. These eventually become surrounded by the waxy material, but they do not become converted into it. The sub-endothelial fibrous tissue also contains many waxy deposits. In the myocardium also the waxy deposit occurs in small patches, either within a fasciculus of muscular fibres, or around the small arteries running in the perimysium externum. The waxy material is poured out from the capillaries into the spaces around these between the perimysium internum and the muscular fibrils. As the quantity of waxy material increases, the fibrils become compressed, break down into a granular mass, and eventually are absorbed; in this way the fibres gradually undergo atrophy, the waxy matter growing more abundant all the time. It is to be especially noted that the fibres do not undergo any waxy degeneration themselves. The small arteries between the fasciculi are almost all waxy; the small veins, too, frequently become waxy; and many of the capillaries are similarly affected. Doubtless, now that attention has been called to the subject, the disease will be readily recognised by other observers; but if it be so frequently present as Prof. Hamilton believes it to be, it is a little remarkable that symptoms of cardiac failure should not form a more prominent feature at the close of life. It may be that more close investigation will demonstrate that such really is the case. At any rate, Prof. Hamilton has done good service in calling attention to a somewhat overlooked subject.

#### THE THIRTY-SEVENTH REPORT OF THE COMMISSIONERS IN LUNACY.

FROM this Report we learn that the number of lunatics in England and Wales increased during the year 1882 by 1923, the average for the previous ten years being 1620, and for the last three years 1757. This augmentation in the rate of increase of the numbers of the insane is not, however, due to any increase in the numbers becoming insane year by year, but solely to the diminishing death-rate, the mortality in county and borough asylums throughout the kingdom having fallen 1 per cent. In this way a diminished rate of removal is, of course, as efficacious in augmenting the number of those under treatment for insanity as an increased rate of addition to their numbers, and we may again rest satisfied that the number of those who become insane is not materially increasing. Comfort may also be drawn from the fact that the recoveries, as compared with the admissions, were 40·41 per cent. No fewer than twelve suicides have occurred in county and borough asylums during the year. Doubtless this does not seem a very large proportion of the 5500 patients under care in these asylums who are known to be suicidally inclined, and doubtless also it is sometimes practically impossible to prevent a suicidal patient from carrying out his intention, as in the well-known case of the man who tore his abdomen open with his naked hands without attracting the notice of the attendant who was sitting by his bedside; but still it appears evident that in nearly every one of these eleven cases there had been contributory negligence on the part of the asylum authorities. With regard to a suicidal patient who is apparently convalescent, the medical officers of asylums are placed between the devil and the deep sea. If they detain him in an asylum they render themselves liable to endless complaints on the part of the patient, his friends, and often also of the guardians who are liable for his maintenance; and they often suffer serious misgivings and searchings of heart without these external incentives. On the other hand, they know from almost daily experience how

little an improvement in cheerfulness can be depended on as an indication of any real diminution of the suicidal tendency; and how ready the very same people who blame them for detaining a patient—that is, for excess of vigilance—will be to blame them if a relaxation of that vigilance permits him to injure himself. A special feature in this Report is the observations made by the Commissioners on the night-watching of the epileptic and suicidal. For the last ten years the Commissioners have paid marked attention to this matter, and have again and again drawn attention to the advisability of a continuous supervision of these classes of patients by night as well as by day; and, in nearly all the asylums visited by them, arrangements for this purpose, more or less efficient, have been made. The only asylums which have not yet adopted this most salutary and necessary change are those for the county of Suffolk, for the East Riding of Yorkshire, and for the boroughs of Hull, Newcastle, Norwich, and Bristol. In order to procure explicit information on this head, and also to elicit the opinion of asylum superintendents as to the usefulness of the system, the Commissioners have recently issued a circular to the asylums under their jurisdiction, and embody in their Report the answers they have received. The testimony thus obtained is, of course, of the highest value, and speaks very strongly indeed for the benefits that the continuous night supervision confers both upon the patients and the officers in these institutions. Suicidal attempts are largely prevented, and, when made, are detected and frustrated, epileptics are saved from suffocation, quarrels and consequent injuries to patients by one another are prevented, and a general feeling of security is generated not only among the patients, but also among the medical officers, who are relieved from a great burden of anxiety. The demand for asylum accommodation continues to increase, as may naturally be inferred from the increasing numbers of the insane that we have already mentioned. Many asylums are full, several are overcrowded, and in the majority the margin between accommodation and occupation is unduly narrow; and this in spite of new asylums, new annexes to existing asylums, and extension in various ways of old asylum buildings.

#### THE ETIOLOGY OF FUNGOUS ENDOMETRITIS.

A RECENT number of the *Archiv für Gynäkologie* contains a long, but somewhat theoretical, paper by Dr. Brennecke on the etiology of fungous endometritis, more especially of the form described by Olshausen under the name of "chronic hyperplastic endometritis." The weakness of this carefully written paper is in the small number of cases upon which it is based. Of the disease described by Olshausen, the author believes there are two forms—a glandular, in which overgrowth of gland-tissue is the conspicuous change; and an interstitial, marked by hyperplasia of the connective tissue. Between these extreme forms, other mixed or intermediate cases occur, in which both changes are present. The interstitial form occurs in the younger, the glandular form in the older patients. Dr. Brennecke describes six cases observed by himself, and refers to some other published cases, and upon this material he builds his theory. He finds that in them all the hæmorrhage and other symptoms characteristic of the disease were preceded by periods either of complete amenorrhœa, or of irregular, infrequent, and scanty menstruation. Therefore, he says, the disease depends primarily upon a functional disturbance in the ovaries, which, as a reflex effect, causes chronic hyperæmia of the uterine mucous membrane, and thus leads to hypertrophy of that structure. This reflex effect is produced through the nervous mechanism which governs ordinary menstruation, and it therefore affects the body only, not the cervix, of the uterus.



Being a disease due to reflex action, it cannot be cured while the cause of the reflex effect remains in operation. Hence, says Dr. Brennecke, the frequency of relapse which is observed in this disease. Our author also adduces the occasional association of abscess of the ovary with this morbid condition in support of his view. For the treatment of this form he looks on the curette, used to remove the hypertrophied membrane, as the grand agent. This should be combined with tonic medication to alter the morbid action which leads to its formation. Cauterisation he thinks useless, its adoption being based on an erroneous view as to the pathology of the disease, viz., that it is merely a local change in the uterine mucous membrane. He does not think that this malady ever passes into cancer. The form of disease in which there are localised fungous outgrowths in the uterine cavity, Dr. Brennecke in his experience has always found dependent on some other disease of the uterus: either chronic catarrh (simple or gonorrhœal), retroflexion, stenosis of the os internum or externum, interstitial or sub-mucous fibroids. This form he therefore calls the local uterine form, in contradistinction to the cases of chronic hyperplastic endometritis, which, in accordance with his theory, he calls the ovarian form. He points out these distinctions:—1. In the uterine form there is hæmorrhage from the beginning; in the ovarian, menstruation is at first deficient or absent. 2. In the uterine form there is scarcely any tendency to relapse; in the ovarian, a strong tendency. 3. The fragments removed by the curette are smaller in the uterine form than in the ovarian. 4. In the ovarian form these pieces show the structure simply of hypertrophied mucous membrane; this being seldom the case in the uterine form, in which the products of catarrh and ulceration are commonly found. Lastly, Dr. Brennecke describes fungous endometritis following abortion, which he denominates the decidual form. These cases yield the most satisfactory results to treatment, being commonly completely cured by once using the curette. Dr. Brennecke adds to his paper an interesting novelty in the shape of a plate, in which the course of some cases of fungous endometritis is shown in a graphic form.

#### STATISTICS OF FRENCH MEDICAL PRACTITIONERS.

THE *Progrès Médical* furnishes the following analysis of the quinquennial report which the Minister of Commerce has just published:—

	1876.	1881.
Doctors of Medicine . . .	10,743	11,643
Officiers de Santé . . .	3,633	3,203
Pharmaciens . . .	6,232	6,443
Herbalists . . .	983	982
Midwives . . .	12,847	13,403

In the Department of the Seine there were, at the end of 1881, 555 doctors of medicine, 21 *officiers de santé*, 30 *pharmaciens*, and 395 midwives more than in 1876, while there were 76 fewer herbalists. The number of communes in France is 36,097; and in these 3645 doctors alone practise, in 1914 *officiers de santé* alone practise, in 743 both doctors and *officiers* practise, while in 29,795 there are neither doctors nor *officiers*.

#### THE EFFECTS OF COTTON SIZING ON THE HEALTH OF THE OPERATIVES.

DR. J. H. BRIDGES AND MR. E. HAYDON OSBORN, the Commissioners appointed by the Home Office to inquire into the effects upon the operatives of the process of heavy sizing in cotton manufacture, state in their report that though notable changes have taken place during the last ten years in the proportion of the various ingredients used in the process, the amount of dust in weaving-sheds has not proportionately

increased. There is no doubt that the change effected by steaming the atmosphere of weaving-sheds is to create an artificial climate of a somewhat tropical and relaxing kind, whilst there is great unwillingness to admit fresh air into the weaving-sheds owing to the artificial and unstable composition of the warps. During frosty winter afternoons, when steam-jets have been for hours in full operation, and when the products of gas-combustion have been added to the exhalations from the lungs of the workpeople, the atmosphere of a weaving-shed must be in a high degree injurious to constitutions predisposed to pulmonary disease or dyspepsia. The conditions of the work are not such as to prevent that large proportion of workpeople whose constitutions are naturally vigorous from following their calling without serious inconvenience. But there remains the proportion, always very considerable, who have a constitutional tendency to one form or other of rheumatic, phthisical, or dyspeptic ailments. Such tendencies cannot fail to be intensified by working continuously in an ill-ventilated atmosphere pervaded by mineral dust or rendered artificially damp. The remedies recommended by the Commissioners are—first, that those processes by which very large quantities of size can be incorporated with the warp without necessitating the diffusion of dust or moisture, but which are at present trade secrets, should become generally known and applied. Secondly, that more effective means of ventilation should be secured, and that measures should be taken to apply these means where they exist. In many dusty occupations, notably in that of flax-heckling, it is a most important mitigation of the evil that they are carried on with open windows. The air of the workroom where this is the case is probably changed more than a score of times during an hour. It may be doubted whether with the majority of weaving-sheds it is effectively changed once during the working-day. Thirdly, that as the business of weaving has become from various causes one of great complexity, and requires an amount of skill, and even of scientific knowledge, such as appeared to the Commissioners to be not unfrequently wanting, measures should be taken for diffusing elementary information with regard to the qualities of the atmosphere. In a manufacturing process in which the quality of the atmosphere is so important, it might have been expected that means would be taken to ascertain with some precision facts capable of such easy and exact measurement as temperature and moisture. Yet it is very rare to find a thermometer in a weaving-shed; and a hygrometer, simple though the instrument is, appears to be entirely unknown. The diffusion of elementary information on these two points, combined with a recognition of the paramount importance of ventilation, would go far towards the provision of remedies, or at least of effective palliatives, for the evils complained of.

#### A BATCH OF "TRANSACTIONS."

THE thirty-fourth volume of the *Pathological Society's Transactions*, which has just been issued, contains, as usual, a large amount of valuable material. The chief feature of the volume is the considerable increase in number of records of pathological specimens taken from animals exhibited during the session—the firstfruits, so to speak, of the Comparative Pathology Committee appointed at the instigation of Mr. Jonathan Hutchinson. It would be invidious, where so many papers are good, to pick out any one as of especial merit; and it is needless to add that the communications are not all of equal value in respect to either the novelty or the rarity of the cases to which they refer. The sixteenth volume of the *Clinical Society's Transactions*, which has just been published, contains fifty-one papers, many of them referring to cases of unusual interest. Among the



more important of these we may mention cases of local asphyxia (or, Raynaud's disease), of scleroderma, of subcutaneous rheumatic nodules, cases of intussusception treated in different ways, of nephrectomy and nephrolithotomy, a case of extirpation of a small goitre, and one of subperiosteal amputation at the hip-joint. The second volume of the new series of the *Transactions of the Medico-Chirurgical Society of Edinburgh* and the first volume of the *Transactions of the Academy of Medicine in Ireland* are also before us. They differ considerably in size. The former, though consisting of only 116 pages, contains, nevertheless, some elaborate papers and well-reported discussions. We may refer especially to Mr. Bell's paper "On Loss of Memory occasionally following Cranial Injuries"; to Dr. John Duncan's paper "On Germs and the Spray"; to two papers, "On Ankle-Clonus in relation to the Height of the Individual," and "On Nutrition and Reproduction," by Dr. Alexander James; and to Dr. Allan Jamieson's paper "On the Treatment of Diphtheritic Sorethroat," and the discussion thereon. The Irish volume is much more pretentious, numbering 371 pages, and containing several plates, photographs, and woodcuts. The papers range over a very wide area indeed, as amongst them are some read in the Medical Section, others in the Surgical, Obstetrical, Pathological, Public Health, and Anatomy and Physiology Sections. Many of the communications are mere records of interesting or unusual cases or specimens, but there are also some papers deserving of special allusion: such are, for instance, Dr. Cameron's paper "On Consanguineous Marriages in Relation to Deaf-Mutism"; Mr. Davison's paper "On the Influence of Fractures on the Growth of Bone"; Mr. Chas. Coppinger's, "On Hydatid Tumours of the Bones"; and one by Dr. Stack, "On the Replantation and Transplantation of Teeth." It is much to be hoped that the editor of this volume in future years will be able to see his way to reporting the discussions whenever these have been really good. That it can be done, and with the advantage of adding very considerably to the value of the *Transactions*, is evident from the example of the Edinburgh Society.

#### FREE ASSOCIATES OF THE PARIS ACADEMY OF MEDICINE.

MANY persons, even in France, being ignorant of the qualifications requisite in order to become an *associé libre* in the Academy, the *Gazette des Hôpitaux* explains that amidst the numerous changes which the Academy has undergone since its foundation in 1820, the rule relating to free associates has remained unaltered. According to this, they are directed to be chosen from among persons who have cultivated with success the sciences which are accessory to medicine, or contributed in some way to their progress, or served with zeal and distinction in some of the different establishments devoted to the solace of mankind. Thus there is a marked distinction between the ordinary members of the Academy who belong to the different categories of the art of healing, properly so called, and these associates, who, whether they have diplomas or not, are occupied in the pursuit of science or administration. In order to inaugurate this distinction, ten associate members were chosen, whose names should add lustre to the Academy, and their enumeration is sufficient to show that they did so—viz., those of Berthollet, Chaptal, Cuvier, Desfontaines, Gay-Lussac, Etienne Geoffroy St. Hilaire, Lacépède, Ramond, Rochefoucauld, and Thénard. The successors of this illustrious body have been Arago, Chevreul, Milne-Edwards, Davaine, Littré, Isidore Geoffroy St. Hilaire, Trébuchet, Lafonde Ladébat, Coste, Amedée Latour, Peisse, Payen, and Pasteur. If they do not possess all the distinction of the first series, these names represent the

elite of science, administration, and the medical press. At some recent elections it has been attempted to substitute for names thus honourably characterised those of medical men who, not feeling strong enough to enter the Academy, through the recommendations of the sections of the various branches of the medical art into which the Academy is divided, sought to gain admission through this channel; but hitherto the attempts, which, if successful, would have destroyed the distinguishing peculiarity of the *associés libres*, have failed, and the election which has just taken place fully maintains the characteristics of the preceding nominations. The vacancy was created by the death of M. Amedée Latour, a distinguished writer in the medical press, and the founder of the *Union Médicale* and the French Medical Association. The special committee appointed to propose candidates presented their list, with Prof. Quatrefages on the first line, and on the second line M. Durand-Claye, the celebrated sanitary engineer; MM. Foville, Magitot, De Rause (editor of the *Gazette Médicale*), and Worms. At the first ballot Prof. Quatrefages received forty-seven of the votes of the ninety-three members present, and M. Worms received thirty-three. As this did not constitute the required majority, a second ballot was taken, when the votes were fifty-nine for Prof. Quatrefages, and thirty for M. Worms.

#### FASHION IN TREATMENT.

As Dr. Wendell Holmes pointed out in his valuable address, the progress of our knowledge in respect of physiology and pathology has, thanks to improved methods of study and investigation, been simply enormous during the last few decades; and it has been steady progress—slow, perhaps, but built up gradually, step by step, on the sure foundation of fact. Speculation counts for very little nowadays, and our text-books on anatomy no longer attempt to determine the exact habitation of the soul, though there are hundreds of men living and in practice now, who were taught by one of the leading anatomists of their student-days that the soul inhabited the pineal gland, and that, according to the best authorities, it invested itself in that body between the thirty-fifth and fortieth day of intra-uterine life. We are, then—and it is not said in any spirit of boasting,—immeasurably superior to our predecessors of half a century ago, both in our knowledge of disease-processes and our means of diagnosis. Upon this point there can be no manner of doubt; and the natural question arises, Have our advances in treatment been commensurate with, or borne any definite relation to, our more thorough appreciation of disease? This, after all, is the practical point, and if it cannot be answered in the affirmative, then surely we are failing to fulfil what should be the main object of our lives, viz., to benefit our fellow-men. The striking address on "Good Remedies—out of Fashion," delivered by Dr. Hare some months since, and recently published in a separate form, naturally suggests such reflections as these. Why, the very title is an accusation, not against our honesty perhaps, but certainly against our common sense, and yet, unfortunately, the truth of it cannot be denied. "Out of fashion," indeed! What has fashion, or, rather, what ought it to have, to do with treatment? The medical profession is supposed to consist of fairly well-educated, intelligent human beings, and not of a flock of sheep. There are evidences, however, that the men of the present generation do not intend to run of necessity in the same grooves—some would say ruts—as their predecessors, and in nothing is this more evident than in the use of stimulants in fevers. The statistics given by Dr. Hare show very prominently the influence of Dr. Todd's views, in the enormous beer and spirit bills which were run up in the various metropolitan hospitals twenty years



ago; and they also show further that that influence has ceased practically to be felt, and that the indications for their use are now probably estimated at their true value. That bleeding was formerly carried to excess, none can deny; that it might be used more frequently with advantage at the present day, most would probably agree. The young men of the present day would be as little likely to derive benefit from a biennial bleeding as they would be likely to finish a couple of bottles of old port with impunity. Railways and telegraphs, and competitive examinations, and a host of other modern improvements, have entirely changed our mode of life, and have probably exercised a modifying influence upon the constitutions of the rising generation, for which corresponding allowances must be made in our modes of treatment. But, after making all due allowances for the age in which we live, the fact remains that many excellent remedies have quite undeservedly fallen into disuse; and if the employment of some of these should henceforth once more become general, Dr. Hare will have the satisfaction of knowing that he did not deliver his address in vain.

#### THERAPEUTIC PLAYTHINGS.

HOWEVER useful playthings may be, they are not often seriously advocated and described as remedial agents. Dr. T. S. Latimer, of Baltimore, in a recent article on infantile paralysis, puts aside drugs and the "much-belauded electricity," in favour of frictions, massage, and "judiciously selected playthings, such as encourage voluntary efforts on the part of the child." He considers that various forms of swings, velocipedes, and other vehicles which shall be propelled by the movements of the patient's legs or arms are of great value in encouraging voluntary efforts.

WE hear with great pleasure that Mr. Lister has been offered and has accepted a baronetcy.

THE old pupils of Prof. Charcot entertained him at a banquet on Wednesday last, on the occasion of his election into the Académie des Sciences of the Institute.

PROFESSOR MCKENDRICK, of Glasgow, will deliver a series of five lectures at the Royal Institution "On the Origin, Distribution, and Regulation of Animal Heat," on Tuesdays, March 4 to April 1.

A SOIRÉE was given on Thursday evening by the Medical and Physical Society of St. Thomas's Hospital, in the central hall of the Hospital. There was some good music and a well-selected show of objects of interest.

THE Medical Officer of the Sheerness Local Board reports that Sheerness was the only naval port in England in which the suspension of the Contagious Diseases Act had been attended with a decrease in the number of cases under that Act.

IT was stated by one of the speakers at the recent meeting of the General Council of St. Andrews University that Dr. B. W. Richardson, the retiring Assessor, would, at the next general Parliamentary election, contest Finsbury in the Radical interest.

A CONFERENCE on the "Dwellings of the London Poor" will be held at the Mansion House on Tuesday next, the 11th inst., at 2.30 p.m. Several members of Parliament and medical officers of health are expected to take part in the proceedings.

THE deaths of two medical practitioners from fever contracted in the discharge of their duties are reported. Dr. John Wall, the Medical Officer of the Cork Public Health Committee, died on Tuesday from typhus; and Dr. John Paton, of Bo'ness, Linlithgowshire, died on Sunday of typhoid.

THE gradually increasing number of *Centralblätter* has lately been augmented by the appearance of a new *Centralblatt für Zahnheilkunde*. Published in Berlin, under the editorship of Dr. Goltstein, of Geneva, the new paper supplies a want long felt among practitioners and students of dental surgery.

#### THE VIENNA SCHOOL OF MEDICINE.

FOR those who have spent any time there, the very name of Vienna has an undefinable charm. To the young doctor, fresh from hard reading or from onerous ward-work, the free and careless life of the Austrian capital, the making of new friends, the plunge amongst new ideas, the emancipation from schedules, and the liberty to study what and when he pleases, combine to make his stay a charmed part of his life to which he will always look back with feelings of gratitude and delight. Vienna is to him what Rome is to the artist, and Paris to the good American. That every branch of medical science and practice can be learned just as well, if not better, in London nowadays than it can in Vienna, does not destroy its merit; for the chief value to a doctor of a final six months or year of study abroad has always consisted not so much in the opportunity it gave him to work at skin and throat and eyes, as in the general widening of his view of life, in the new friends and new ideas, and in the leisure for digesting his knowledge that it brought him. Thus a "wander-year," the greater part of which should be spent at Vienna, may still be cordially recommended to the young practitioner, though, if he has duly availed himself of all the advantages that a good English medical education affords, he will probably find many of the courses at Vienna useless to him. For as there are generally some dozen American students there to one who hails from the British Isles, the courses have been wisely adapted rather to the American than the English standard. Still the practice of the best men is well worth following, if one can only escape the dragooning into classes which the high organisation of the Vienna School as a paying concern appears to render necessary.

A volume has been sent us for review, (a) which will have a deep interest for everyone who has ever studied at Vienna, and which should be read as a matter of duty by all who are thinking of studying there. It is a history of the Vienna Medical School during the last century, and has been compiled, in preparation for the approaching centenary of the General Hospital, by Dr. Puschmann, the Professor of the History of Medicine in the University. Dr. Puschmann has had access to the various ministerial archives and to the records of the Hospital, and he has succeeded in producing a work which, while thoroughly German in its conscientiousness and precision, differs agreeably from many of the writings of his fellow-countrymen in being extremely easy and agreeable reading. The author divides his subject into four chapters. The first, entitled "The Old Vienna Medical School," begins with the arrival of Boerhaave's most celebrated pupil—Van Swieten—in Vienna in 1744, on the invitation of the Empress Maria Theresa; describes the changes which he instituted in the Medical Faculty of the University; the introduction by him of clinical instruction, with the help of another of Boerhaave's pupils, Anton de Haën (the father of medical thermometry); the erection of new university buildings; the discovery of percussion by Auenbrugger; and the introduction of scientific therapeutics by Anton Störck. The method pursued by the latter is thus described:—"In making investigations on drugs, he first

(a) "Die Medicin in Wien während der letzten 100 Jahre." Von Dr. Theodor Puschmann. Wien: Verlag von Moritz Perles. 1884.



administered them to animals, and then made trials with them upon himself, in order to determine what were their effects on the healthy organism; for he saw that one must be acquainted with their physiological effects if one wished to use them to remove pathological conditions. When he had instructed himself as to the general mode of action of a drug, he prescribed it in single cases of disease in which it appeared likely to produce a favourable effect."

The second chapter deals with the reforms introduced by the enlightened and philanthropic son of Maria Theresa, and brother of the ill-fated Marie Antoinette, the Emperor Joseph II. The reign of this Emperor from 1780 to his premature and lamented death in 1790, was a time of immense activity. It was filled, says Dr. Puschmann, "with the spirit of humanity and enlightenment. The foundation of hospitals and almshouses, of benevolent institutions of every sort, of schools and educational establishments, bears testimony to the noble thoughts and enlightened spirit of this monarch." But Joseph II. was before his time. His efforts were obstructed on all sides by ignorance and prejudice; and though his energy was such that he succeeded during the short period of his reign in introducing reforms which otherwise would have taken a century, he had the misfortune to see many of his plans suffer shipwreck even during his life, and on his death men fell back for the most part into the old state of things. The "Reaction"—though it serves as the title of Dr. Puschmann's third chapter—was less felt in the Medical Faculty than in other departments, and even during the period which followed the death of the enlightened Emperor the Medical School of Vienna boasts of many famous names. Of these the most famous is that of Peter Frank, Director of the General Hospital and Professor of Clinical Medicine from 1795 to 1804. Frank is chiefly known as the Father of State Medicine, his classical work on that subject being one of the most remarkable and valuable productions of the German school. But he was besides a most successful clinical teacher, and the founder of the Pathological Museum at Vienna. The third chapter of Dr. Puschmann's work carries the history of the Vienna School down to the year 1840, and includes, besides many other interesting matters, an account of the rise of mesmerism and phrenology, both Mesmer and Gall having been practitioners in Vienna.

The fourth chapter, on "The New Vienna School of Medicine," begins with the researches of Skoda and Rokitansky, and brings us down to the present day. It would hardly be too much to say that the history of the Vienna School during a great part of this time is the history of medicine in general. A succession of great teachers arose, whose names are familiar to all of us, and whose efforts raised the Vienna School to the height of its renown. Dr. Puschmann gives a short sketch of each of these teachers—of Skoda, Rokitansky, Hebra, Hyrtl, Oppolzer, Sigmund, Arlt, Billroth, Czermak, Stricker, and many others; and it is to this chapter that the English reader will turn with greatest interest. These men have trained many able successors, who will doubtless still uphold the reputation of their School, but it is hardly to be expected that the Vienna Hospital will ever again possess such an array of clinical talent as that which raised it to the highest point of eminence during the past generation. Dr. Puschmann's work is a most instructive one, and we would gladly see an abbreviated edition of it published in an English dress.

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### A SUPPLEMENTAL REPORT ON DIPHTHERIA AND SCARLET FEVER AT SUTTON-IN-ASHFIELD.

Not very long since we published an abstract of the report of Dr. Parsons, presented to the Local Government Board, embodying the result of his inquiries into an undue prevalence of scarlet fever and diphtheria in the Sutton-in-Ashfield Urban Sanitary District. These inquiries were undertaken so recently as May, 1882; but, in consequence of the high continued mortality from these diseases recorded in the Registrar-General's returns, Dr. Parsons was instructed, in April of the present year, to revisit the district

in question and make a further investigation into the subject. The existing conditions of the district were, of course, so similar to those that had already been described, that Dr. Parsons did not consider it necessary to repeat them. He merely records that, whereas up to May 5, 1882 (the date of his previous inspection), the cases of diphtheria reported had been 39 in 30 households, with 12 deaths, and the cases of scarlet fever 27 in 18 households, with 4 deaths,—up to April 14, 1883, there had come to his knowledge, in addition to the foregoing, 87 cases set down as diphtheria, occurring in 61 households, with 40 deaths, and 108 cases of scarlet fever in 49 households, with 24 deaths. It is probable, however, Dr. Parsons adds, that this list is far from complete, and, for various reasons, exact information respecting the cases, especially in the matter of dates, could not be obtained. It will be sufficient, in noticing the present report, to give a short statement from it, of the action taken by the Sanitary Authority in carrying out the recommendations presented to them in 1882. The system of voluntary notification of infectious disease by the medical practitioners of the district on payment of a fee of 1s. for each notification has been continued; but, the report says, there is reason to believe that the information received by the Medical Officer of Health as to the cases of disease which have occurred, has been by no means complete. The schools have not been closed, except for the holidays, since 1882, but the school attendance officer has endeavoured to prevent children from known infected households continuing attendance. At the Hardwick-street schools several of the unwholesome conditions referred to in the previous report have been rectified. Infected houses have in many, but not in all, cases been fumigated with sulphur. Dr. Parsons did not meet with any instances in which the subsequent recurrence of disease appeared to be due to the neglect of this precaution. Nevertheless, the sanitary condition of the town remains much the same as at the date of the previous report. Few improvements have been carried out. One well which was polluted is said to have been "closed," but the water is still accessible. Some privies in Kirkby-lane, which were too near to the houses and wells, have been pulled down, and rebuilt at a greater distance, but on the old objectionable pattern. Over-full midden privies were frequently observed during this second inspection. The work of inspection of nuisances is still negligently and unintelligently performed. A committee has been appointed by the Local Board to consider the best means of providing a water-supply, and an engineer's report has been obtained. The small amount of sewerage improvement undertaken is either unsatisfactory or has not yet been completed; and it is stated that the Local Board, instead of obtaining a loan to form a complete system at once, propose to sewer their district a portion at a time, out of current expenditure—by which proceeding, time, that may be of great importance to the public health, will certainly be lost. The foregoing particulars will, we think, be sufficient to establish the fact that the central Board's investigations are, in the majority of cases, only loss of valuable time, and must continue so until Parliamentary powers are obtained to compel the carrying out of the sanitary improvements recommended by the inspecting officials.

### DR. DOWNES'S REPORT ON AN OUTBREAK OF DIPHTHERIA AT OAKSEY.

The area to which this inquiry relates is the village and vicinity of Oaksey, a parish in the Malmesbury Rural Sanitary District, 1924 acres in extent, with a population in 1881 of 419 persons. The village is situated on the crest of a ridge about 350 feet above Ordnance datum, and in a valley on its south side are broad meadows, liable to flood, and unprecedentedly flooded in the autumn of 1882. The population consists chiefly of agricultural and railway labourers, housed in substantial cottages of excellent building-stone, and roofed with tilestone. Their stone-paved floors, the report says, appeared for the most part dry; but in five or six of those invaded by diphtheria, dampness was noted, occasioned by the floor being sunk below the ground-level by retention of subsoil water, or by absence of free exit for roof and surface drainage. But little overcrowding was met with. The water-supply is obtained from wells, a large proportion of which stand close to objectionable privy cess-pits, leaky drains, and refuse-heaps, and Dr. Downes remarks that they are, for the most part, obviously unsafe as a



source of domestic water-supply. This fact becomes clearly evident when Dr. Downes states that one cesspit was emptied in his presence, which it was admitted had not been subjected to such a process for a period of twelve years! The diphtheria outbreak, which formed the subject of the present inquiry, would seem to have commenced, so far as Oaksey was concerned, in June, 1882, and to have continued with irregular incidence down to March, 1883, during which period sixty-five cases were reported, with seven deaths. A consideration of his report suffices to show that Dr. Downes instituted a most thorough investigation into the origin and causes of the outbreak: it will be sufficient here to record that, as the result of a house-to-house inquiry, he discovered that on May 22, 1882, a child was brought from Cirencester to its grandparents at Oaksey, suffering from throat-illness which was undoubtedly diphtheritic; and this case was, in his opinion, the initial cause of the outbreak. Allowing this, it would appear probable that it was afterwards transmitted by ordinary personal infection, chiefly through the schools; and an inspection of one school in particular seemed to furnish a clue to one very simple *modus operandi* of this school influence, and an explanation, in some part, of the comparative intensity of its effects at certain times. The children were arranged, Dr. Downes explains, in classes, each class in a double row, face to face in close proximity, the forms being only two feet apart. Singing formed an invariable and large part of the school programme; and, granted the presence of a child with infectious throat secretions, he is of opinion that no more certain arrangement could be adopted for the emission and transmission of contagious particles. Until October and November, 1882, cases were few and scattered. This may be explained, Dr. Downes thinks, partly by the fact that until October 8 there is no evidence of any infected child attending school; the contagium until then had apparently been passed on independently of school influence, chiefly among adults, and with difficulty. Once in the schools, it found a suitable soil, and the transference of the not easily diffused contagium would be promoted by the school arrangements just described. The recommendations to the local Sanitary Authority, appended to the report, as usual, refer to the abatement of the different nuisances found to exist in the village, and to an improved water-supply for the district.

## ABSTRACTS AND EXTRACTS.

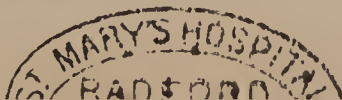
### ICTERUS NEONATORUM.

A RECENT number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an article on the above subject by Dr. M. Hofmeier, of Berlin. The writer first considers the theories hitherto advanced as to the production of this condition. It has been suggested, first, that it is due to changes taking place in the blood, leading to production and non-elimination of pigment. Dr. Hofmeier does not accept this view, because he finds no evidence of the supposed blood-changes, or of the assumed deficiency in the emunctory organs. It has been also said to be due to pigmentary changes in capillary cutaneous extravasations produced during labour. Three points, says our author, tell against this—(1) there is in this disease colouration of internal organs as well as of the skin; (2) it is met with in small and premature children, as well as in those with whom labour has been protracted; (3) it is met with in children delivered by Cæsarian section, or by laparotomy, in cases of extra-uterine pregnancy. A third theory is, that it is due to diminution of blood-pressure generally, and therefore in the portal system, leading to re-absorption of bile. To this Dr. Hofmeier objects (1) that there is no proof that lowering of the blood-pressure does lead to re-absorption of bile; (2) that if it were so, in infants in whom the late ligature of the cord is practised, so that the blood-pressure in their circulation is little diminished, or even increased, jaundice ought not to be met with; whereas it occurs as commonly in them as in others. Virchow supposes, and so does Kehrler, that icterus neonatorum is due simply to catarrhal swelling and occlusion of the bile-duct. Dr. Hofmeier accepts this as true for a few cases, but not for all. The latest explanation is that of Birch-Hirschfeld, who, basing his views on 600 post-mortem examinations, attributes the jaundice to compression of the bile-ducts in consequence of venous stasis in the liver. Dr. Hofmeier points out that such

venous stasis implies grave disturbance in circulation and respiration; and while entirely accepting Birch-Hirschfeld's facts, he yet sees jaundice so often in children whose breathing and circulation are quite vigorous, that he thinks the post-mortem appearances in children who die do not account for the jaundice in robust children who live. Finding, thus, that none of the explanations of icterus neonatorum hitherto advanced explain its occurrence in a satisfactory manner, Dr. Hofmeier has himself investigated the subject from a clinical point of view. He finds that with the jaundice of the new-born the following phenomena are associated:—During the first few days of life the loss of weight which occurs in all children is in the icteric much greater than in others. There is also during the first nine days a greatly increased excretion of urea and of uric acid; and there are also appearances in the urine which (from a former investigation) he believes to indicate the presence of uric acid infarcts in the kidneys. Albuminuria occurs more often in the icteric than in the non-icteric. In the jaundiced a yellow pigment is invariably present in the urine, to a degree corresponding to the intensity of the jaundice. These things indicate, he thinks, a considerable waste of the nitrogenous tissues; and this inference leads to the next question, viz., as to the cause of the waste. It might be due (1) to deficient quantity of nutrition, (2) to defective quality, (3) to mal-assimilation. These disadvantageous circumstances would be expected to more affect first-born and premature children, and those whose mothers were suffering from illness. Observation corroborates theory, for Dr. Hofmeier finds from statistics that among icteric children there are undue proportions of first children and of premature children, and that icterus is more often seen in lying-in hospitals than in private practice. Assuming, then, that there is an excessive waste of nitrogenous constituents, the question comes—on what tissue does this fall? Dr. Hofmeier answers—on the blood. It leads, in his view, to destruction of red blood-corpuscles; and it is the pigment derived from this disintegration that causes the jaundice. He points out that many blood-poisons, —both chemical, such as phosphorus, and vital, such as the poison of pyæmia—produce jaundice as one of their symptoms; and some among these (*e.g.*, ether and chloroform) have been experimentally proved to cause destruction of red blood-corpuscles. Dr. Hofmeier has sought for direct proof of his theory by examining the blood. In the newly-born he finds these peculiarities present: less tendency to the formation of rouleaux, a greater resistance to the action of fluids which make the corpuscles swell, and a great variability in the number of white corpuscles. These changes he finds more marked in the icteric than in the non-icteric children. From these facts Dr. Hofmeier draws the general conclusion that icterus neonatorum is intimately connected with certain phenomena depending upon tissue-changes, these changes themselves depending upon the state of nutrition; and further, that a connexion between icterus and certain processes going on in the blood is unmistakable. The jaundice he believes due to the presence of bile in the blood, bile-pigment being present in the excreta to an extent proportionate to the depth of the jaundice. Bile-pigment he regards as physiologically an ultimate product of the decomposition of blood-pigment. He thinks that there is an excessive production of very highly pigmented bile, in consequence of the nutritive changes previously mentioned, and that the jaundice results from the re-absorption of this. Icterus neonatorum, therefore, according to Dr. Hofmeier, depends essentially upon the state of nutrition during the first few days of life. It is a partly physiological, partly pathological phenomenon; and when it is observed to be intense and of long duration, it should be regarded as an indication of some radical fault in nutrition, and the especial attention and care of the medical man should be directed to the discovery and removal of that which is exerting an unfavourable influence.

### THE WORK DONE BY THE HEART.

HOWELL AND DONALDSON (*Proceedings of the Royal Society of London*) conclude that the mean ratio of the maximum weight of blood pumped out of the left ventricle at each systole to the body-weight is  $\frac{1}{55}$ , with a pulse beating 180. The pressure in the left auricle is about 16 mm. mercury; Goltz and Gaule had estimated it for the auricle of a dog





at 19.6 mm. mercury. They state that variations of arterial pressure of from 58 to 147 mm. mercury have no effect on the force of ventricular contractions, and within these limits, therefore, heightened blood-pressure does not increase the work of the heart. The outflow from the left ventricle, and consequently the work done, increases with the venous pressure, but not proportionally. The most direct factor influencing the amount of work to be done by the left ventricle is the extent of intraventricular distension during diastole, which is mainly owing to the auricle, since pressure in the great veins seldom has any positive value, but often a negative one. Further, a diminution in the pulse-rate, by lowering the temperature of the blood flowing through the heart, causes an increase in the amount pumped out by the ventricle, and therefore increases the amount of work done by the ventricle. The changes in the outflow from the ventricle at each systole are not, as has been previously stated, inversely as the pulse-rate. The total outflow and the total work done by the ventricle during any given period of time decreases with a diminished pulse-rate, and increases with an increased pulse-rate. These facts have a definite bearing on practical medicine. The experiments were conducted on dogs.

**IODOFORM AS A DRESSING IN WOUNDS.**—Dr. Michael, Professor of Clinical Surgery at the University of Maryland, Baltimore, sums up the results of his trials with this substance as follows:—1. Iodoform is a most convenient and valuable dressing, possessing great antiseptic power, and being perfectly simple in its application. 2. Its local anæsthetic power adds to its other advantages. 3. It decreases secretion in wounds, thereby making dry and infrequent dressing possible. 4. It does not prevent healing *per primam*. 5. It is dangerous, and should be used with great circumspection, especially in old and debilitated subjects, and those with weak hearts.—*Phil. Med. News*, September 8.

**THE JAUNDICE OF PREGNANCY.**—Dr. Queirel, Physician to the Marseilles Maternité, in a "Note on the Jaundice of Pregnancy," read at the Académie de Médecine (*Bulletin*, November 20), states that he is of opinion that we should admit (1) a jaundice at the commencement of pregnancy, connected with a morbid condition of the alimentary canal; (2) a jaundice, which is of very rare occurrence, occurring at the end of pregnancy, due to compression of the excretory ducts; and (3) jaundice that may occur at any period of pregnancy, due to a disease of the liver (the nature of which he does not specify), and which is itself dependent upon the influence of the condition of pregnancy.

**NON-RECURRENCE OF MENSTRUATION AFTER THE MENOPAUSE.**—In a recent clinical lecture on malignant diseases of the neck of the womb, Dr. Gaillard Thomas states as an axiom in gynæcology, that if a woman who has normally ceased to menstruate begins to have uterine hæmorrhage one should always suspect carcinoma. "Not infrequently," he says, "you will see in the medical journals the reports of cases of women who, having passed the change of life, have begun to menstruate regularly again; but such accounts are altogether deceptive, and, if these cases could be followed out, it would be found, with scarcely a single exception, that the uterine flow was merely the indication of the presence of malignant disease. In other words, there is absolutely no such thing as the return of the menses when a woman has once reached the normal menopause."—*Boston Med. Jour.*, November 8.

**BACTERIA, FORMS OF FIBRIN.**—"Dr. Gregg, of Buffalo, has been conducting some experiments on bacteria, and publishes the following remarkable summary of his labours:—By boiling a quantity of healthy blood he obtained all the forms of bacteria. Then, with some pure fibrin obtained from a washed clot of blood, and boiling it, proving that it was the threads of fibrin broken up into pieces and granules that gave the bacteria, the same results were obtained. Next, some blood was obtained, and rotted under warmth, and closely watched for two months; and here again the same forms were obtained that the fresh-boiled blood gave. From these experiments Dr. Gregg concludes that all the bacteria of disease are forms of fibrin, and, for the general good, requests all investigators to repeat his experimental work, and report to the public the results."—*New York Med. Record*, September 29.

## REVIEWS AND NOTICES OF BOOKS.

*The Field of Disease: a Book of Preventive Medicine.* By B. W. RICHARDSON, M.D., LL.D., F.R.S. London: Macmillan and Co. 1883. 8vo, pp. 992.

THIS book is written, as is stated in the preface, for those members of the intelligent reading public who wish to know the leading facts about the diseases of the human family, their causes and prevention. It must, therefore, be criticised from the point of view of its ostensible object, and the effect it is likely to produce on its destined readers. That a clearer understanding of the structure and functions of the body, both in health and disease, than at present prevails is desirable for the well-being of mankind, will be doubtless admitted. A little knowledge is not necessarily dangerous; on the contrary, if it be sound, it will probably be useful. But a work addressed to men for their practical benefit and useful information regarding the causes and prevention of disease should rather consist of a clear setting forth of the leading facts of physiology and what is definitely settled in pathology and sanitary science, than appear in the guise of an incomplete and not very accurate dictionary of medicine. Dr. Richardson indeed entitles his work "a Book of Preventive Medicine," but much of it is nothing more than a descriptive list of diseases, based chiefly on the Nomenclature of the College of Physicians, and prefaced by a condensed account of some general medical terms, such as Fever, Inflammation, etc. It can scarcely be believed that the uninitiated reader can derive any solid information from a few large-print pages on "Fever," and less than one on "Functional Derangement," or benefit in any way by descriptions of disease after disease, even of such importance as typhoid fever, which occupy often but a few lines. Such matter as this, when given to the public, is obviously more calculated to alarm than to instruct.

The "Physiological Outline," occupying fifty pages, which precedes the account of "Local Diseases," cannot be regarded as of great explanatory value, or as giving this book the character that its professed object would imply. A superficial and often erroneous treatment of the wide subject of the "Field of Disease" is perhaps an inevitable outcome of the author's method in this work, which is thus rendered liable to a graver charge than that of being merely one of supererogation. A few instances will suffice. It cannot be considered, from the preventive point of view, a luminous manner of describing syphilis and gonorrhœa, to dispose of these diseases in a few lines, omitting to mention, doubtless "for decency's sake," that they are usually conveyed by sexual intercourse. Under the heading of "Pneumonia" (the subject of catarrhal pneumonia having been *already* treated), the reader is told that "lobular pneumonia" is an affection where the disease is confined to portions of the lung structure, and "broncho-pneumonia," where the pneumonia is combined with bronchial inflammation; and this after the author has stated that "essentially the disease is one." Surely this very careless or esoteric use or misuse of well-known terms is quite indefensible. Under "Diseases of the Nervous System," a section which, with that on the Circulatory System, we think of more than doubtful public advantage, even were its statements unassailable, we find the dictum that the deposition of tubercle in meningitis takes place, as a rule, between the dura mater and the arachnoid. Again, we are told that when sclerosis affects the middle-aged it causes "paralysis agitans." Here either the pathology or the terminology of the writer is rather cloudy. One of the two commonest causes of sudden apoplexy or "stroke" is furthermore stated to be obstruction of the sinuses of the brain from coagulated blood, and a consequent effusion of "watery matter" from the blood into the closed cavity! The offhand opinion is expressed that morbid hypertrophy and atrophy of brain are often produced by mental activity or inactivity. Such a doubtful and subtle pathological hypothesis as this should hardly be given in a dogmatic form to the non-medical reader, whatever of truth there may possibly be in the suggestion. Dr. Richardson's brain, however, is big with suggestions; and his notion of the alcoholic substratum of disease meets our eyes at almost every turn of the page. Not satisfied with marshalling before us alcoholic sunstroke, phthisis, sclerosis, gastritis,



calculus, sterility, insanity, etc., our author is found in the act of detecting the "fumes of whisky" arising from the brain of a drunkard killed in a railway accident! The attack on tobacco is less worthy of attention and serious refutation than the somewhat misguided one on alcohol; for, with smaller foundation in fact, it is far more extravagant, a diligent confusion being made, after the manner of a platform propagandist rather than of a candid teacher, between the effects of minute and excessive quantities of the drug. Not fears, but smiles, will be excited in most smokers by the perusal of this part of the book. Such writing, for the sake of the scientific dignity of the profession, is greatly to be deprecated. *Epilepsy* is called, without qualification, hereditary; and *epileptic vertigo* a "recoverable form of the disease." Under "*Chorea*" we are told that "it presents itself at all ages, and that recovery sometimes occurs"; and *Catalepsy* is described as a state of relaxation. Besides these and other somewhat important inaccuracies of statement, there is frequent evidence of the hasty construction of this book in the occurrence of such words as "dypsomania" and "lanceolating," and other faults of terminology and expression.

Towards the end of the work are to be found some chapters which it is much to be regretted the author has not enlarged and offered to the reader in a scientific garb. Much the best part of the book is the chapter on the zymotic causes of disease; but such an important question as this is clearly unfit at present to be boiled down for the public at large, and Dr. Richardson's exposition of it is deserving of a more select audience than that to which it is addressed. The author gives a very clear statement of the present position of the discussion, and a lucid and valuable setting forth of his own speculations on the subject. No one after carefully reading this chapter—much too short though it is for the nature of its contents—is likely to commit the fashionable medical error of the present day, and prematurely regard the establishment of an exclusive germ-theory of so-called zymotic diseases as a *fait accompli*. The chapter on "Acquired Diseases from Mental Agencies" is well worthy the perusal of the practitioner of medicine, and contains many wise reflections. We wish we could have spoken of this book entirely as its best parts and the undoubted talents of its author deserve. But it must be considered to fail in its professed object. It is only in its inferior aspects that it appeals to the general public; and thereby it will probably do more harm than good, by tending to generate a nervous dread of illness rather than a rational avoidance of its causes. Much of the matter of this book is thus unadapted to the public to whom it is addressed; much, too, that is really valuable is misplaced. Of making many medical books there is no end; and the work before us is but an addition to the list of those which, from an apparent confusion both of purpose and method, serve no useful public end, and add little to the knowledge of the profession or to the welfare of mankind.

*Transactions of the College of Physicians of Philadelphia.*  
Third Series, Vol. VI., 1883. Pp. 451.

A VOLUME of Transactions extending from December, 1881, to July, 1883, is somewhat difficult to review, especially when it consists of no less than thirty-one articles on subjects as varied as Meteorology, Fungosities of the Bladder, Poisoning from Impure Water, Congenital Irideremia, Flexible Gelatine, etc. The mere titles form sufficient evidence of the wide-spread energy of the College of Physicians of Philadelphia. Unfortunately, many papers in this volume come to us too late for review. All that Dr. Keating has to say on the Micrococcus in the Blood of Malignant Measles, or Dr. Whittaker on the Bacillus Tuberculosis, is already more than a year old; and one year in the rapidly developing history of these micro-organisms makes them appear quite antiquated. One of the most important contributions during the current year is that on Albuminuria, by Dr. Meigs. In this he dwells on the advisability of giving a guarded prognosis in cases of chronic albuminuria, on the frequency of renal asthma in the increased mortality from Bright's disease in recent times, and on the occasional occurrence in the urine of tube-casts without albumen, or of albumen without tube-casts. In a very brief but striking paper, Dr. John B. Roberts for the second time predicts that the time may possibly come when wounds of the heart itself will be treated

by pericardial incision to allow extraction of clots, and perhaps to suture the cardiac muscle. He considers that "there is no reason to believe that cardiac surgery will stop its march with the demonstration that the pericardium can be treated as the pleura." From such startling suggestions it is pleasant to turn to the Treatment of Enteric Fever, by Dr. Wilson, even though part of the treatment consists of the frequent administration of fairly large doses of calomel during the first week. Dr. Weir Mitchell and Dr. Reichert give a racy account of a study of the poison of *Heloderma Suspectum*, the Gila Monster. The need for scientific investigation is evidenced by quotations from two letters from Arizona, one of these describing the monster as being "more peaceful and harmless than a young missionary," while the second writer considers him "worse than a whole apothecary-shop." From experiments on animals the authors of this paper conclude that the poison causes death by arresting the heart's action in diastole, and that, previous to this termination, it annihilates the power of the spinal cord in a very abrupt manner. The final papers on the "Salivary Digestion of Starch by Infants," and the "Fæces of Starch-fed Infants," are interesting, but can hardly be regarded as conclusive. It is noticeable that the saliva of one child (Devine) is stated in the first paper to give well-marked sugar reaction, and in the second to be inefficient. Other papers on Sewer Gas and on Arsenical Paralysis are worthy of mention. The discussions reported might in many cases have been omitted with advantage.

*Nordiskt Medicinskt Arkiv.* Fifteenth Volume, Second Part.

THIS periodical contains several papers of interest. Two cases of intestinal obstruction, due to congenital malformation of the mesentery and of Meckel's diverticulum, respectively, are recorded by Dr. E. Tscherning. The subject of "masked" epilepsy is discussed at considerable length by Dr. E. Hjertström. Under that name he describes a form of acute mania, relapsing, or rather continuing in relapses, with several symptoms indicating its epileptiform nature, although the convulsive epileptic fits are absent. Several illustrative cases are given, in some of which acute mania appeared to be replaced by true epilepsy at different periods. The physiological condition associated with these relapses of epileptic mania is stated to be a "spasm of the nutritive vessels of the cortical layers, produced by the irritation of the vaso-motor centre." The paper is concluded by some remarks on the differential diagnosis of the disease.

## OBITUARY.

JOHN MANN CROMBIE, M.A., M.B., C.M.

DR. J. M. CROMBIE, whose sad death on the 26th ult. from an overdose of morphia taken inadvertently for pain and want of sleep following a surgical operation, has been recorded in the daily papers, received his education both in Arts and Medicine at the Aberdeen University. His career in both faculties was a distinguished one. He took his M.A. degree in 1864, and four years later graduated as M.B. and C.M. After a course of study at the Paris hospitals, he returned to Aberdeen to engage in the practice of his profession, but in 1872 he removed to the wider sphere of London practice. He was for some time Resident Medical Officer to the Cancer Hospital, and his experiences there directed his attention to the various means of relieving pain, especially by the self-administration of anæsthetics. In 1873 he published a work "On the Induction of Sleep, and Insensibility to Pain by the Self-Administration of Anæsthetics," and three years later he contributed a paper "On the Self-Administration of Chloroform" to the *Practitioner*. He invented a self-anæsthetic administrator, with the view of putting in the hands of sufferers a safe and sure means of relief, and in his "hypodermic suppositories" he attempted to provide a simple method of exhibiting morphia subcutaneously. He also published other works, and contributions on analogous subjects. His death from the incautious use of one of the remedies, the self-administration of which it had been the aim of his life to place beyond the possibility of accident, is another sad commentary on the dangerous contempt which familiarity with these perilous means of relief is apt to breed in the medical mind.



## REPORTS OF SOCIETIES.

## THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 4.

J. W. HULKE, F.R.S., President, in the Chair.

## MULTIPLE TUMOURS OF THE FOOT.

THE PRESIDENT showed a drawing of the foot of a woman, aged twenty-nine, married, and healthy-looking. At the nail-root of the great-toe there was a firm swelling, as broad as the root of the nail, reaching back to the second joint. On the inner and outer sides of the second toe were similar but smaller swellings; one of these showed two small bluish dots. On the dorsum of the third toe was a similar swelling with small bluish dots on surface, bedewed with sweat. Over the outer end of the foot was a rounded semi-elastic swelling; also another slightly lobulated mass on the inner side of the heel, freely movable on the deeper parts. In front of this, below and behind the internal malleolus, were two smaller swellings. All these nodules perspired more than other portions of the foot; pressure over the external popliteal nerve caused beads of sweat to appear on them. The patient attributed them to a blow six months before. She was a woman of neurotic temperament, and was said to bleed more readily than other people after a wound. Her menstruation was normal. The swellings were in the deepest parts of the cutis vera. The bluish dots were probably small hæmorrhages, because they did not disappear on pressure, and on account of her hæmorrhagic diathesis. The tumours were intimately connected with the secretory apparatus of perspiration, and not of the nature of corns or angiomas.

## PURULENT PERICARDITIS TREATED BY INCISION.

Dr. SAMUEL WEST showed the heart of the above case, taken from the body of a boy aged fourteen years. In consequence of a fall, the boy had had an abscess form in the left shoulder, which was freely opened. The temperature rose, there was much dyspnoea and some cyanosis, and there were physical signs of pneumonia at the left base. A few days later the left pleura was tapped, several ounces of serum being removed, with considerable relief. A little later a free incision was made at the site of puncture, but no fluid was found. The pericardium was felt to be full of fluid by the finger inserted into the wound, and was incised, twenty-four ounces of pus being removed. The patient was relieved for the time; but the dyspnoea and cyanosis continued, and eventually the patient died—nine weeks after the accident. At the autopsy there was found a large abscess in the left thigh and inflammation of the left ankle-joint. There was extensive thickening of the mediastinal tissues, in the midst of which the great vessels were embedded, the veins, however, being free. The right pleural cavity contained some serous fluid. The left was divided into three sacs by adhesions, each containing serous fluid. The middle one only had been opened, and corresponding with the incision was the opening in the pericardium. The pericardium was in great part obliterated, except at the apex. There was no obstruction in any of the vessels. The case resembled those originally described by Kussmaul, in the extensive inflammation of the mediastinum, to which condition he attributed the pulsus paradoxus, which was a marked feature of the case. The present was the third instance in which the pericardium had been freely laid open for purulent pericarditis. The first was under the care of Prof. Rosenstein, of Leiden, in a boy, whose pericardium was opened and drained after it had twice been tapped, and who recovered in spite of secondary left pleurisy. The second case had been under his own care at the Victoria-park Hospital, and was published in full in the current volume of the *Transactions of the Royal Medical and Chirurgical Society*. It was a case of idiopathic purulent pericarditis. A free incision was made, and recovery was complete in five weeks' time. Dr. West drew attention to the fact that the incision into the pericardium had given great relief, that the pericardium had in the short space of a fortnight been in great part obliterated, and that death had not resulted from the pericardial affection. He was of opinion that opening the pericardium was not a more hazardous proceeding than opening the pleura or peritoneum.

## A NOTE OF SOME EXPERIMENTS ON THE ETIOLOGY OF TUBERCULOSIS.

Dr. DAWSON WILLIAMS read a paper on the above subject. After Villemin had, in 1865, firmly established the fact of the inoculability of tuberculosis, his experiments were repeated and confirmed by many observers, some of whom went further, and maintained that tuberculosis followed, in the rodents, the infliction of various injuries, and the injection of such substances as quicksilver and charcoal into the jugular vein (Lebert and Wyss). Dr. Wilson Fox obtained like results with putrid muscle, the products of acute inflammation, and vaccine fluid. Dr. Fox also found that inoculation with pyæmic pus, and the introduction of a seton, were, with considerable frequency, followed by tuberculosis in the rodents; and these observations were confirmed by Dr. Burdon Sanderson. A number of the observers had produced tuberculosis by the inoculation of various non-tubercular substances. Among these were Sir Andrew Clark, Messrs. Senior, Page, Empis, and Belieu; quite recently, Formad and Robinson in Philadelphia made a very extensive series of experiments with striking results. At the request of Dr. Wilson Fox and Dr. Sanderson, Dr. Williams had repeated some of the earlier experiments with non-tubercular material. Care was taken to avoid contamination with tubercular material, but no antiseptics were used. The repetition of the experiments with putrid fluids gave entirely negative results. All the animals (guinea-pigs) which survived the primary infective fever (when this occurred) recovered entirely, and when killed, after varying periods, presented no lesions of either a tubercular or pyæmic character. In seven guinea-pigs setons were introduced, but all the animals remained healthy, and, when killed, were found quite free from disease. Dr. Dawson Williams referred to Mr. Watson Cheyne's experiments, published while his own were in progress, and remarked that his results entirely coincided with Mr. Cheyne's on this point. In Germany, Salomonsen and Baumgarten had made numerous experiments with the products of inflammation, with tumours, and with fungi and micro-organisms, with negative results. All the experiments of Waldenburg, Fox, Sanderson, and Cohnheim had now been repeated with negative results. The evidence, therefore, was all against the theory that tuberculosis could be produced in any other way than by infection with tubercular material. Dr. Dawson Williams further thought that the observations on the eye after inoculation, recently published by Baumgarten and Arndt, were extremely important, and appeared to show that the growth of the bacilli preceded the characteristic histological changes, which would make it appear that these changes were the reaction of the tissues under the peculiar stimulus of the growing bacillus. The all-important rôle now assigned to the bacillus was thought to create fresh difficulties; and it seemed possible that it might, after all, be shown that the activity of the bacillus was, when a broad view of the etiology of the disease was taken, of secondary importance.

Dr. WILSON FOX referred to observations by Dr. Burdon Sanderson and himself, and to Mr. Simon's communication, at a previous meeting of the Society. Dr. Koch's observations had made it necessary that his own investigations should be repeated. This had been taken in hand before Mr. Cheyne's work. He now felt that there must have been some fallacy in conducting his own experiments, perhaps from want of disinfection of his trocar, or from keeping the animals together too much, though no animal not operated upon became tubercular. In Dr. Williams's experiments no single guinea-pig inoculated with non-tubercular material became tuberculous. All sources of fallacy had been carefully avoided in these experiments. He paid a high tribute to the inductive capacity of Prof. Villemin. He would ask whether we were dealing with an absolutely specific bacterium, or if it was capable of evolution from other bacteria. There was, perhaps, some danger of phthisiophobia or phthisiomania. During the past thirty years there had been many changes in the doctrine of phthisis. Portal had, after patient observation, given up the theory of the infectiousness of phthisis. He was unwilling that his former observations should still be quoted as opposed to the doctrines of Koch and those who had been more recently working at the subject; and therefore he had felt bound to come forward and make known the modification which his views had undergone.



Mr. WATSON CHEYNE spoke of the great value of these experiments of Dr. Williams in contradicting former erroneous opinions. Before his own investigations were undertaken he had made up his mind on the subject, as he had never been able to obtain tuberculosis by the injection of putrid materials.

Mr. HÜLKE said they were deeply indebted to Dr. Williams for his work, and to Dr. Wilson Fox especially for his acknowledgment of altered views, for, after all, scientific men only aimed at learning the truth.

Dr. DAWSON WILLIAMS explained that he did not wish to speak for Dr. Burdon Sanderson, as he did not know what views he held.

#### ANEURYSMAL DILATATION OF RADIAL ARTERY.

Mr. SYMONS detailed the case of a man who met with an accident, and whose forearm was crushed, but was not at once amputated; this was done on the eleventh day owing to severe hæmorrhage. On examination, both bones were found to be comminuted; radial artery at two points dilated into aneurysmal pouches; upper half softened and filled with coagula; at one point it was perforated. The ulnar artery was somewhat dilated; the microscope showed the middle and external coats were much separated; outer part of middle coat much thickened, partly by a clot which had formed in the inner coat; elastic lamina had nearly disappeared. The ulnar artery showed similar changes. He also showed another specimen of suppurative arteritis taken from a man aged fifty-two years, who died of pulmonary phthisis. He had elbow-joint disease, for which amputation was performed. Suppuration took place in the stump. After death the lower end of brachial artery was found much softened, and just above hollowed out and containing a broken-down blood-clot. On section, the artery was unusually thick, the inner coat raised up and pushed inwards, the elastic lamina destroyed. These cases he thought threw some light on cases of secondary hæmorrhage, viz., that it was not due to the non-formation of clot, but to giving way of the wall.

Dr. GOODHART noted that the changes took place in different parts of the artery in these two cases. He believed that this was not uncommon; it was well known in syphilitic arteritis, where sometimes the inner, sometimes the outer coat was affected. But the chief interest for him was the question of secondary hæmorrhage; he had for some years held that this was not dependent on the ligature, but on suppuration around. Again, with regard to the formation of aneurysm from embolism, or after the application of a ligature, he believed both were due not to obstruction, but to an acute inflammation such as had been shown to exist in these two cases.

Mr. SYMONS, in reply, referred to a man who had an aneurysm of the femoral artery after amputation of thigh, due, he believed, to extension of inflammation up the artery. Secondary hæmorrhage was almost a thing of the past.

#### TUBERCULAR DISEASE OF THE TONGUE.

Mr. BARKER read notes of the case of a man who, always delicate, had been ailing a year; he had a sore on the tongue from holding tacks in his mouth—at first only a fissure near the tip of his tongue. Five months previously he had had hæmoptysis, and also hæmorrhoids. He got worse, and was admitted into the hospital five weeks later. His tongue presented a shallow ulcer near the tip, and a second one further back. There were signs of phthisis in both lungs, and also distinct ulceration of rectum. Anti-syphilitic treatment did no good; the ulcer spread, and invaded about a third of the tongue; gradual exhaustion, and death. At the post-mortem, lungs and intestines typically tubercular; larynx and trachea healthy; anterior third of tongue ulcerated; margins of ulcer abrupt, surface uneven, base not indurated; glands beneath jaw not enlarged. Microscopically, there were collections of minute cells in groups in the base of the ulcer, with some giant-cells. The appearances were similar in sections taken from the intestinal ulcers. Tubercular ulceration of the tongue appeared to be very rare in this country; only one case (that of Dr. Hadden's, last year) was to be found in the *Transactions* of the Society, and a living specimen had been shown by Mr. Stanley Boyd; also two cases were recorded by Mr. Bryant in *Guy's Hospital Reports*. Abroad, the subject had attracted much more attention. The affection was very important, owing to the necessity for early surgical interference.

Mr. CROFT referred to the case Dr. Hadden had shown, who had been a patient of his own; and asked Mr. Barker whether the affection was secondary or primary in his patient, as this was all-important in regard to treatment. In his own patient the tongue lesion was secondary.

Mr. GODLEE mentioned that a patient of Mr. Heath's was in the outer room with a tubercular ulcer of the tongue. He promised to bring the subject forward at a subsequent meeting.

Dr. FOWLER mentioned a case under his care at the Brompton Hospital, where the ulceration of the tongue had been present.

After a few remarks from Dr. BERNARD O'CONNOR,

Mr. BARKER replied that he could not be certain which had been first in his patient, the sore on the tongue or the pulmonary affection.

#### CARD SPECIMENS.

Dr. H. A. LEDIARD.—Caries of the Vertebrae in a Dachshund.

Mr. WARREN TAY showed an infant, eleven months old, with typical Bromide Rash on the extremities, which began to appear after the administration of four grains and a half of bromide of potassium three times a day for eight days.

### MEDICAL NEWS.

**APOTHECARIES' HALL, LONDON.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 29:—

Agar, Samuel Hollingsworth, Trinity-square, Borough.  
Anderson, Langford McEwan, New Cross-road, S.E.  
Caldecott, Charles, Church-square, Basingstoke.  
Hamilton, Thomas Theophilus, Loughgilly, co. Armagh, Ire.  
Kelson, William Henry, London Hospital.  
Lee, George Thomas, Upper Wimpole-street, W.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Caswell, George William, University College Hospital.  
West, William Paynter, Guy's Hospital.

#### APPOINTMENTS.

ANDERSON, WILLIAM MILNE, M.B., C.M. Aber.—House-Surgeon to the West London Hospital, *vice* — Hendley, resigned.  
BENSON, A. H., M.B.—Ophthalmic Surgeon to the City of Dublin Hospital, *vice* J. H. L. Stoney, M.D., deceased.  
CROOM, JOHN HALLIDAY, M.D., F.R.C.P., F.R.C.S. Edin.—Assistant-Physician to the Gynaecological Department of the Royal Infirmary, Edinburgh.  
HODGES, R. W., L.R.C.P. Edin.—Honorary Medical Officer to the Fever Hospital, Queenstown, Cork.  
JOHNSTON, F., M.B.—House-Surgeon's Assistant to the Liverpool Northern Hospital, *vice* W. Horrocks, M.R.C.S.  
OLIVER, J., M.B.—Medical Officer and Registrar to the National Hospital for the Paralysed and Epileptic, Bloomsbury, *vice* N. Rushworth, M.R.C.S., resigned.  
PARRY-JONES, M., M.B. Lond., M.R.C.S.—Resident Clinical Assistant at the City of London Hospital for Diseases of the Chest, Victoria-park, E.  
PITTS, BERNARD, M.B., M.C. Cantab., F.R.C.S.—Assistant-Surgeon to the Hospital for Sick Children, Great Ormond-street.  
RUDGE, H. T., M.R.C.S.—Physician's Assistant to the Bristol General Hospital, *vice* J. B. Woolby, M.B., resigned.  
SAVILL, T. D., M.D. Lond., M.R.C.P.—Registrar and Pathologist to the West London Hospital.  
TAYLOR, G. H., L.R.C.S.—Junior Assistant Medical Officer to the Durham County Asylum, *vice* C. M. Campbell, M.D., resigned.  
VINRACE, E. DENNIS, M.R.C.S., L.S.A.—Resident Medical Officer at the Hospital for Diseases of the Throat, in the place of Dr. Edward Law, resigned.  
WAUGH, HENRY D., M.D., B.A.—Resident Medical Officer to the Hospital for Consumption and Diseases of the Chest, Brompton, *vice* Dr. Hicks, resigned.  
YOUNG, JOHN, M.B., C.M.—House-Surgeon to the Scarborough Hospital and Dispensary.

#### DEATHS.

BARRATT, EDGAR, M.D., at 46, Grand-parade, Brighton.  
HARPER, PHILIP HENRY, F.R.C.S., at 30, Cambridge-street, Hyde-park, on November 29, aged 61.  
KEENE, JAMES, F.R.C.S., M.R.C.P., Aural Surgeon and Lecturer to the Westminster Hospital, on November 27, in his 50th year.  
MADDER, WILLIAM HERRIES, M.D., F.R.C.P., at Dechmont House, Linlithgowshire, N.B., on December 3.  
PEARLESS, EDWARD MONTAGUE, M.R.C.S., at the Colonial Hospital, Georgetown, Demerara, aged 25.  
PEARSON, GEORGE, M.D., at Lincoln House, St. John's Wood, on November 25.



## VACANCIES.

**BATH GENERAL OR MINERAL-WATER HOSPITAL.**—Resident Medical Officer. (*For particulars see Advertisement.*)

**FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.**—Faculty Lectureship. (*For particulars see Advertisement.*)

**GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.**—Junior Resident Medical Officer. Salary £80 per annum, with board and lodging. Candidates must be doubly qualified and on the Medical Register. Applications, stating age, and accompanied by testimonials (not originals), to be sent to the Chairman of the Medical Board on or before December 12.

**LIVERPOOL NORTHERN HOSPITAL.**—House-Physician. Salary £80 per annum, with residence and maintenance in the Hospital. Candidates must possess a medical and surgical qualification from one or more British colleges or institutions recognised under the Medical Act. Applications and copies of testimonials to be addressed to the Chairman of the Committee not later than December 14. The election takes place on December 21.

**NEWTON ABBOT RURAL, AND DAWLISH AND WOLBOROUGH URBAN SANITARY AUTHORITIES.**—Medical Officer of Health. (*For particulars see Advertisement.*)

**NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, MOUNT VERNON, HAMPSTEAD, N.W.**—Resident Medical Officer and Registrar. (*For particulars see Advertisement.*)

**ROYAL CORNWALL INFIRMARY.**—House-Surgeon. Salary £120 per annum, with furnished apartments, fire, light, and attendance. Candidates must be legally registered to practise both in medicine and surgery, and unmarried. Applications, stating age, with testimonials, to be sent to the Secretary, Royal Cornwall Infirmary, Truro, before December 10.

**VICTORIA HOSPITAL FOR CHILDREN, QUEEN'S-ROAD, CHELSEA, S.W.**—Assistant-Physician. Candidates must be graduates in medicine of a university recognised by the Medical Council, and not practising pharmacy. Applications, with copies of testimonials, to be sent to the Secretary, at the Hospital, on or before December 10.

**VICTORIA HOSPITAL FOR CHILDREN, QUEEN'S-ROAD, CHELSEA, S.W.**—House-Surgeon. An honorarium of £50 per annum, with board and lodging in the Hospital. Candidates must be Fellows or Members of the Royal College of Surgeons of England, and Licentiates of the Society of Apothecaries or of the Royal College of Physicians, or graduates in medicine of any university recognised by the Medical Council. Applications, with testimonials, etc., to be sent to the Secretary, at the Hospital, on or before December 10.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

**Cosford Union.**—Mr. Charles Parker Mann has resigned the Boxford District: area 11,189; population 2992; salary £57 per annum.

**Gainsborough Union.**—Mr. Percy Pope has resigned the West Butterwick District: area 7847; population 2501; salary £26 per annum.

**Kingston-on-Thames Union.**—The office of Medical Officer for the Kingston District is vacant: salary £155 per annum.

**Woburn Union.**—Mr. A. D. Mahon has resigned the Aspley Guise District and the Workhouse: area 7466; population 2943; salary £70 per annum. Salary for Workhouse £45 per annum.

## APPOINTMENTS.

**Burton-upon-Trent Union.**—John W. Wolfenden, L.R.C.P. Edin., L.R.C.S. Ire., to the Tutbury District.

**Redruth Union.**—Arthur E. Permewan, M.B. Lond., M.R.C.S. Eng., L.S.A., to the Redruth District.

**THE LEEDS MEDICAL CHARITIES.**—Nearly £2000 from the balance accruing from the Leeds Musical Festival is to be divided between the Infirmary, the Dispensary, and the Hospital for Women and Children.

**TESTIMONIAL.**—On Monday last a testimonial, consisting of an illuminated address signed by 359 subscribers, and a purse containing nearly £200, was presented to Mr. C. C. Balding, of Shefford, who is compelled by ill-health to retire from practice after twenty-five years of steady work.

**POOR-LAW CONFERENCE.**—The Annual Central Conference of the Representatives of Poor-Law Guardians will be held at Exeter Hall on Wednesday, the 12th inst., when "Poor-Law Medical Relief" will be one of the subjects discussed.

**CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY.**—The fifty-ninth annual meeting of this Society was held on Friday, the 30th ult., when the directors presented a very favourable report of the financial progress of the Society and the development of its business during the past year.

**THE ROYAL HOSPITAL FOR INCURABLES.**—At the annual meeting of the governors of the above Hospital, on Friday week, it was stated that the income of the year had not sufficed for the expenditure, and a loan of £3000 had to be repaid to the bankers. The cost of the institution, however, showed, as compared with last year, a diminution. The number of inmates was 197, and pensioners 457, making a total on the funds of the institution of 654.

**ACTION FOR SLANDER.**—An action for slander, which has created some excitement in Ireland, was commenced on the 27th ult. by Dr. Connolly, a medical practitioner of Bruff, co. Limerick, against a man living in the same town, who had accused the plaintiff of conspiring to murder him. The damages claimed amounted to £2000, but after a trial extending over four days the jury were on Monday last discharged without being able to agree to a verdict.

**THE HEALTH OF VENTNOR.**—Dr. Woodford, the Medical Officer of Health, states, in his report for the quarter ending September 30 last, that, excluding the deaths of eleven visitors who came to Ventnor with their fatal illness upon them, the mortality for the quarter did not exceed an annual rate of 12.8 per 1000, as compared with 12.6 in 1882. There was during the three months an entire absence of any zymotic or epidemic disease.

**THE BLANE MEDAL.**—This medal, founded by the late Sir Gilbert Blane, Bart., Director-General of the Medical Department of the Royal Navy, has just been awarded to Staff-Surgeon George Maclean, M.A., M.B., and C.M. Aber. 1862, of H.M.S. *London*, and Staff Surgeon Robert Hall More, M.D. and C.M. Aber., of H.M.S. *Swiftsure*, for the excellence of their journals, on the recommendations of the Presidents of the Royal Colleges of Physicians and of Surgeons of London, and of the present Director-General of the Medical Department of the Royal Navy.

**GLASGOW MATERNITY HOSPITAL.**—The annual report of the Glasgow Maternity Hospital, read before a meeting on November 27, showed that during the year 1542 cases had been attended to, 258 in the Hospital and 1284 outside. These figures indicate a continued advance in the usefulness of the institution. Financially the report was also favourable, the income from all sources being £2335, and the expenditure £2303. Five deaths took place in the Hospital, and ten outside. Only one death from puerperal fever occurred during the year in the Hospital.

**AMBULANCE TRAINING ON THE "EXMOUTH."**—A gratifying report has been forwarded to the St. John Ambulance Association from Deputy Inspector-General Coates, on an examination held on board the Metropolitan Asylums' training-ship *Exmouth*, when the whole of the boys (sixty-five in number), instructed by Mr. S. Osborn, R.N. A.V., were recommended for certificates, the examiner reporting that any one of the candidates would be able to render most valuable assistance to a surgeon in the cockpit of a man-of-war, a railway smash, or any similar emergency.

**THE ALICE MEMORIAL HOSPITAL.**—The new Alice Memorial Hospital at Darmstadt will be ceremoniously opened by the Grand Duke on the 8th inst. (to-day). This building, which stands in a commanding position on a site granted for the purpose by the Grand Duke, forms no unworthy memorial of the late Princess Alice, Grand Duchess of Hesse. Her Royal Highness founded and took an active part in the management of the old hospital and training-school for nurses. The old house was found, however, to be quite inadequate to the requirements of the nurses and their patients, and this has led to the erection of the new Memorial Hospital. The trustees of the English "Alice Memorial Fund" have given a sum of £3400 towards these buildings, and the balance of the amount required for its erection has been obtained from other sources.

**BREAD REFORM LEAGUE.**—A report of this Association for last year, which has been delayed in consequence of the illness of the Secretary, Miss Yates, has recently been issued. The Council state that the object for which the League was organised—namely, the spread of a knowledge of the dietetic advantages of wheat-meal bread—has met with very gratifying success. The principal thing, they say, that is now required for the complete success of the movement is an improved reliable supply of perfectly cleaned wheat (whole or decorticated), ground of a uniform very fine quality, made into palatable bread, and sold cheaper than white bread. The movement would, in the opinion of the Council, be greatly assisted if large commercial bodies, either as companies or co-operative associations, could be formed for the production of whole-meal bread, as bakers are not anxious to introduce it. The report mentions the fact that the London School Board has included wheat-meal bread in its syllabus of instruction in cookery.



ST. ANDREWS UNIVERSITY.—At the half-yearly meeting of the General Council, on Friday, the 30th ult., to elect an Assessor, three candidates were proposed, viz., Dr. Cleghorn, Dr. B. W. Richardson (who had held the office for twelve years), and Sir Richard Cross. Dr. Cleghorn having obtained a majority of votes, a poll was demanded. Since then, Dr. Cleghorn has retired in favour of Sir R. Cross, and the contest will therefore lie between the ex-Home Secretary and Dr. Richardson. The constituency numbers over 1000.

GLASGOW SICK CHILDREN'S HOSPITAL.—When passing through Glasgow on Saturday last, the Duke and Duchess of Montrose showed the practical interest which they take in this Hospital by paying it a visit. They were conducted through the various wards, and were much interested in the many improvements in the way of nursing with which the Hospital has been furnished. The Duchess is one of the patronesses, and brought a number of books and toys, which were distributed among the children. At present there are fifty-one patients under treatment in the Hospital. The visitors expressed themselves as being highly pleased with the management and condition of the institution.

COLD IN THE TREATMENT OF FEVERS.—Dr. Cameron, M.P., read a paper on the 29th ult., before the Glasgow Southern Medical Society, on the subject of "Cold in the Treatment of Fevers." Dr. Cameron stated that Dr. Brand, of Stettin, in 1861, had been the first to introduce the treatment of typhoid cases by cold baths, from which wonderful results had since been obtained. In the course of the paper many striking cases of cure by means of cold treatment were instanced, and the investigation of the subject was recommended as worthy of the attention of the faculty in Glasgow, who had generally so much to do with fever outbreaks.

GLASGOW WESTERN INFIRMARY.—The annual report of the managers of the Western Infirmary was submitted to a meeting of subscribers on Thursday, the 29th ult. It stated that during the year ending October 31, 1883, there were treated 18,905 outdoor and 3917 indoor patients. The average daily number of patients in the Hospital was 368, and the average residence of each thirty-eight days. The number of deaths was 296, or 8 per cent. of all the cases treated to a termination. The financial statement showed that the ordinary income was £15,153, and the ordinary expenditure £18,639, being a deficit of £3486. The deficiency was due to a falling off in the donations for maintenance, and to the large increase in the number of patients.

A VETERAN ARMY SURGEON.—Mr. Moses Griffith, D.L., and J.P. for the county of Pembroke, who died on the 29th ult., aged ninety-five, served in the Peninsula as army surgeon from January 7, 1810, to the end of the war, including the battles of Busaco, Fuentes d'Onor; siege and assaults of Ciudad Rodrigo, January, 1812; siege and assault of Badajoz, April, 1812; battles of Salamanca, Vittoria, Pyrenees, Nivelle, Nive, Orthes, and Toulouse. He was wounded at the affair of Vich Bigorre on January 19, 1814; served in India, Arabia, and the Burmese Empire from May, 1818, including the sieges of Asserghur, Rasel, Kyma, and Zaia, the siege and assault of Dwarkae, the affair of Bemabu Ali, the assault of a fortress on the banks of the Pegu River, the assault and siege of Donabew, and the battle near Pyrome.

THE HOUSING OF THE POOR.—The Local Government Board is about to address a circular to the metropolitan vestries, drawing their attention to the powers that can be exercised by them under the Sanitary Act of 1866 in reference to houses let in lodgings or occupied by members of more than one family. The circular will be accompanied by some model regulations dealing with the following matters:—The fixing of the number of persons who may occupy a house let in lodgings; the registration and inspection of such houses, and the keeping of the same in a cleanly and wholesome state; the enforcement of the provisions of accommodation and other appliances and means of cleanliness in proportion to the number of lodgings and occupiers; the cleansing and ventilation of the common passages and staircases; and the cleansing and lime-washing at stated times of such premises.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 1, 1883.

BIRTHS.

Births of Boys, 1239; Girls, 1184; Total, 2423.  
Corrected weekly average in the 10 years 1873-82, 2637·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	839	816	1655
Weekly average of the ten years 1873-82, } corrected to increased population ...	897·6	891·7	1789·3
Deaths of people aged 80 and upwards ...	...	...	76

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	6	5	6	9	...	4	1	2
North ...	905947	5	3	3	7	3	...	13	...	...
Central ...	282238	...	2	3	1	3	...	3	...	...
East ...	692738	...	3	23	1	4	...	6	...	2
South ...	1265927	...	19	20	13	10	...	7	2	5
Total ...	3816483	5	38	59	28	29	...	33	3	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29·755 in.
Mean temperature ...	...	...	...	...	...	46·3°
Highest point of thermometer ...	...	...	...	...	...	56·2°
Lowest point of thermometer ...	...	...	...	...	...	36·6°
Mean dew-point temperature ...	...	...	...	...	...	42·7°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0·83 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 1, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Dec. 1.	Deaths Registered during the week ending Dec. 1.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		In Inches.	In Centimetres.
London ...	3955814	2423	1655	21·8	56·2	36·6	46·3	7·95	0·83	2·11
Brighton ...	111292	60	40	18·8	55·3	37·8	46·6	8·12	0·72	1·83
Portsmouth ...	131478	91	47	18·7	...	...	...	...	...	...
Norwich ...	89612	60	29	16·9	...	...	...	...	...	...
Plymouth ...	74977	38	27	18·8	56·1	35·0	47·7	8·72	0·64	1·63
Bristol ...	212779	139	80	22·1	57·5	36·2	48·0	7·78	0·54	1·37
Wolverhampton ...	77557	64	34	23·9	55·9	30·5	43·4	6·33	0·53	1·35
Birmingham ...	414946	249	187	23·5	...	...	...	...	...	...
Leicester ...	129483	84	60	24·2	55·8	35·5	45·5	7·50	0·58	1·47
Nottingham ...	199349	156	92	24·1	56·2	33·8	44·6	7·01	0·59	1·50
Derby ...	85574	44	36	22·0	...	...	...	...	...	...
Birkenhead ...	89700	56	31	18·2	...	...	...	...	...	...
Liverpool ...	566753	377	289	26·6	58·1	40·5	46·8	8·23	0·82	2·08
Bolton ...	107862	76	48	23·2	55·1	34·6	44·0	6·67	0·95	2·41
Manchester ...	339252	220	191	29·4	...	...	...	...	...	...
Salford ...	190465	117	92	25·2	...	...	...	...	...	...
Oldham ...	119071	91	61	26·7	...	...	...	...	...	...
Blackburn ...	108460	79	60	23·9	...	...	...	...	...	...
Preston ...	98564	62	38	20·1	...	...	...	...	...	...
Huddersfield ...	84701	48	43	21·5	...	...	...	...	...	...
Halifax ...	75591	39	32	22·1	...	...	...	...	...	...
Bradford ...	204807	130	64	16·3	56·2	40·0	46·6	8·12	0·59	1·50
Leeds ...	321611	181	160	23·0	58·0	40·0	47·7	8·72	0·64	1·63
Sheffield ...	295497	227	128	22·6	57·0	39·0	46·2	7·89	0·59	1·50
Hull ...	176296	118	69	20·4	55·0	35·0	44·2	6·78	0·81	2·06
Sunderland ...	121117	102	56	24·1	...	...	...	...	...	...
Newcastle ...	149464	108	84	29·3	...	...	...	...	...	...
Cardiff ...	90033	70	49	28·4	...	...	...	...	...	...
For 28 towns ...	5620975	5509	3792	23·0	58·1	30·5	45·8	7·67	0·68	1·73
Edinburgh ...	235946	130	89	19·7	57·0	35·0	46·0	7·78	0·40	1·02
Glasgow ...	515589	388	280	26·3	...	...	...	...	...	...
Dublin ...	349·85	183	172	25·7	56·8	35·1	46·5	8·06	0·29	0·74

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·76 in.; the lowest reading was 28·90 in. at noon on Sunday, and the highest 30·23 in. on Wednesday evening.





## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

## THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—E. Bartlett, Esq., 10s.; F. W. Braine, Esq., £3 3s.; J. Jackson Gawith, Esq., £1 1s.; John Hall, Esq., £1 1s.; W. M., 10s. 6d.; J. H. Parker Wilson, Esq., £1. Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

## THE ROGERS TESTIMONIAL.

The following is the sixth list of subscriptions:—Dr. James Wakley and T. Wakley, Esq., F.R.C.S., £10 10s.; C. Bader, Esq., Finsbury-circus, £1 1s.; Lennox Browne, Esq., 38, Weymouth-street, £1 1s.; Dr. Morgan, Newport, Monmouth, £1 1s.; Dr. Milward, Cardiff, £1 1s.; Dr. Webb, Wirsbworth, £1 1s.; Jesse Newington, Esq., Tenterden, £1 1s.; T. Cheate, Esq., Burford, Oxon, £1 1s.; Dr. England, Winchester, £1 1s.; C. F. Sntton, Esq., Holmes Chapel, £1; John Elliot, Esq., Kingsbridge, £1 1s.; F. C. G. Griffin, Esq., M.B. Oxon., Weymouth, £1 1s.; F. Wachter, Esq., Canterbury, £1 1s.; Dr. J. H. Hughes, Ombersley, 10s. 6d.; H. Mallins, Esq., M.B., Watton, Norfolk, 10s. 6d.; Dr. A. Kirkland, Chalfont St. Peter, 10s. 6d.; Dr. H. M. Morgan, Lichfield, 10s. 6d.; Joseph Soane, Esq., Dock-street, 10s. 6d.; Dr. Wallis, Brentwood, 10s. 6d.; J. Selwyn Cowley, Esq., Upton-on-Severn, 10s. 6d.; C. Winstanley, Esq., Ingatestone, 10s. 6d.; James Hughes, Esq., Middlewich, 5s.; Dr. Mackinder, Gainsborough, 5s.; Dr. H. F. Manley, Padstow, 5s.; T. H., 2s. 6d.

Mr. M. B. Nugent writes:—"I should be much obliged if any of your readers will inform me whether the following work has ever been translated into English:—Bartholinus—'De Armillis Veterum; De Puerpero Veterum; De In auribus Veterum, Syntagma.' Amstelodami, 1676."

**Opium-Smokers.**—Dr. Ayres, the British Colonial Surgeon at Hong-kong, in his report on the prisons in that colony for the year 1882, says that among the prisoners in the gaol who are set down as opium-smokers there have been no deaths, and he has not found among them any cases of disease which could be attributed to this habit. The heaviest smoker, a man who consumed in this way fifteen grains of opium a day, and had been a smoker for thirty years, weighed 107 lbs. on entering the gaol, and in three weeks he gained 3 lbs., although he underwent penal diet, that is to say, for five days out of fifteen he had to subsist on rice and water only. Dr. Ayres declares the opium-smoker suffers much less from the enforced deprivation of the accustomed luxury at once than the tobacco-smoker, and there was no particular symptom caused by the deprivation. Many make no complaint at all.

**Railway Casualties for the Past Half-year.**—The half-yearly returns, ending June last, of the several railway companies to the Board of Trade, still exhibit an appalling list of accidents and fatalities, which strongly confirms the prevailing opinion that precautions against accidents are lamentably deficient. The total number of personal accidents during the six months was 584 killed and 4021 injured. But all these casualties are not due to accidents to trains. Of this total, only 17 persons were killed by accidents to trains, rolling stock, permanent way, etc., and 374 injured. The numbers in the corresponding half of the previous year were 14 and 370 respectively. Far greater loss of life and personal injury are classified in the returns under the head of "Accidents to passengers from causes other than accidents to trains, rolling stock, permanent way, including accidents from their own want of caution or misconduct." The returns give in detail the various causes of accidents, arising chiefly from carelessness, thoughtless risk, or want of necessary caution, a prominent feature being the large number of casualties to railway employes. These latter complain that the accidents from which they suffer continue to increase, and that the companies fail to adopt the more perfect appliances available, which would be additional safeguards against accidents if put into operation.

COMMUNICATIONS have been received from—

THE CLERK OF THE LOCAL BOARD, Ventnor; THE SECRETARY OF THE CENTRAL COMMITTEE OF POOR-LAW REFORM, London; THE SECRETARY OF THE CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE SOCIETY, London; Mr. JOHN GAY, London; Dr. MILLER, Southsea; THE SECRETARY OF THE APOTHECARIES' HALL, London; Dr. ARTHUR BLONFIELD, Exeter; Dr. MATTHEWS DUNCAN, London; THE ASSISTANT SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY, London; Dr. W. BLYTH, London; THE HON. SECRETARIES OF THE HUTCHINSON TESTIMONIAL FUND, London; Messrs. RUDALL, CARTE, AND CO., London; THE HON. SECRETARY OF THE ST. PANCRAS ANTI-COMPULSORY VACCINATION SOCIETY, London; Dr. C. E. SHELLEY, Hertford; Dr. H. C. ANDREWS, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Messrs. C. GRIFFIN AND CO., London; THE HON. SECRETARY OF THE CLINICAL SOCIETY OF LONDON; Dr. A. T. THOMSON, Glasgow; Mr. J. WICKHAM BARNES, London; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; Dr. NEALE, London; Dr. W. C. MCINTOSH, St. Andrews.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de

l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—National Anti-Compulsory Vaccination Reporter—Chemiker-Zeitung—Veterinarian—Revue Mensuelle de Laryngologie, etc.—Archives Générales de Médecine—Edinburgh Medical Journal—Polyclinic—Weekblad—Glasgow Medical Journal—British Workman—Band of Hope Review—Bradford Observer, December 1—Popular Science News and Boston Journal of Chemistry—Birmingham Medical Review—Monthly Homeopathic Review.

## APPOINTMENTS FOR THE WEEK.

December 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

## 10. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

SOCIETY OF ARTS, 8 p.m. Mr. W. Mattieu Williams, "On the Scientific Basis of Cookery." (Cantor Lectures—II.)

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. H. Royes Bell, "On a New Method for Exposing the Knee-joint in order to remove Pulpal Degeneration of the Synovial Membrane." Dr. Richardson, "Opium Habitués and their Treatment."

## 11. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Mr. Jonathan Hutchinson, "On High Amputations for Senile Gangrene." Mr. Frederick Treves, "On the Direct Treatment of Spinal Caries by Operation."

## 12. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

BROMPTON HOSPITAL FOR CONSUMPTION, ETC., 4 p.m. Dr. Percy Kidd, "On Cases of Laryngeal Phthisis."

HUNTERIAN SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Mr. Bryant, "On some Peculiarities in the course of Strangulated Hernia." Mr. Charters J. Symonds, (1) "On the Reliable Signs of Fracture of the Neck of the Femur"; (2) "On Fallopian Tubes and Ovaries removed for Relief of Uterine Fibroid."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Dr. J. H. F. Flügel, "On Sections of Diatoms."

## 13. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ABERNETHIAN SOCIETY (ST. BARTHOLOMEW'S HOSPITAL), 8 p.m. House-Physicians' Evening.

OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Living Specimens, etc., at 8 p.m. Dr. S. Mackenzie, "On Anæmia as a Cause of Retinal Hæmorrhage." Mr. Nettleship, "On a Case of Sympathetic Iritis following Immediate Excision for Injury." Dr. Brailey, "On the Various Forms of Sympathetic Ophthalmitis." Mr. Simeon Snell, "On Two Cases of Retinal Glioma, in one of which Shrinking of the Eyeball occurred without Perforation." Dr. G. A. Brown, "On a Case of Severe Conjunctivitis, with formation of Membrane on the Cornea, caused by Whisky thrown in the Eyes." Mr. Priestley Smith, (1) "On Blood in Sheath of Optic Nerve from Case of Cerebral Hæmorrhage"; (2) Model illustrating Conjugate Movements of the Eyes. Mr. A. Stanford Morton, "On Congenital Unilateral Absence of Lacrimation in a Boy." Mr. E. Nettleship, "On a Case of Sympathetic Ophthalmitis where the Eyelashes became White." Mr. W. J. Milles, "On an Improved Microtome, with a New Method of Embedding Eyes." Mr. H. W. Pigeon (for W. A. Brailey)—Microscopic Specimens showing the Development of Bacteria in Jequirity Infusions."

## 14. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Dr. Cayley, "On Pneumothorax occurring in the course of Typhoid Fever." Dr. S. West, "On a Case of Complete Recovery from Pneumothorax without Effusion of Fluid." Mr. C. J. Symonds, "On Cases illustrating the Relation between Labial Herpes and Rigor." Dr. J. K. Fowler, "On a Case of Subcutaneous Nodules in an Adult Male." Living Specimens, 8 p.m.: Mr. Clement Lucas—A Case of Charcot's Joint-Disease attacking the Right Elbow and Foot.





## CLINICAL LECTURE

ON A CASE OF

## ARTERIO-VEINUS ANEURYSM.

Delivered at St. George's Hospital.

By T. PICKERING PICK, F.R.C.S.,  
Surgeon to the Hospital.

GENTLEMEN,—I propose to draw your attention to-day to the case of the police-constable who, you will remember, was shot in the thigh in an encounter with a burglar in August last. For the notes of the case which I am about to read I am indebted to my clinical clerk, Mr. Mead.

Patrick B., aged twenty-eight years, was admitted into Grosvenor Ward on August 28, 1883.

*History.*—He states that he has always been healthy and never had syphilis. He had been in the army for nine years, part of which time he was in India, where he had an attack of ague, but was never ill enough to lay up. After leaving the army he joined the police force, in which he has served for the last six months. Whilst on duty on the night of August 27 he had an encounter with burglars, and was shot in the leg. He says he felt faint, but managed to crawl to a cottage a little distance from where the affray took place. He was not brought to the hospital until the following afternoon.

*On Admission.*—He was a fine, well-made man, and well nourished. He looked rather pale from loss of blood. A bullet wound was found in the fleshy part of the right thigh, about six inches below Poupart's ligament, and on the inner side. The direction of the wound was backwards, outwards, and a little downwards, and appeared to cross the line of the femoral artery. On the back of the outer side of the thigh, at a little lower level than the anterior wound, was a contused spot, in the centre of which was a minute opening, and here the bullet could be felt lodged immediately beneath the integument. There was also a small wound on the little finger, and a contused and lacerated wound on the middle finger of the right hand, where a second bullet had grazed the tissues. An incision was made over the bullet, and it was extracted. The wound was carefully syringed out with carbolic acid, and a drainage-tube inserted into either aperture, but not carried across from the wound of entrance to that of exit, for fear of injuring the femoral vessels in the attempt to do so. He was dressed antiseptically.

August 29.—On the following morning he complained of intense pain, and had an anxious and somewhat frightened expression. His temperature was 100° Fahr. He was pale, and his pulse weak. R. Tinct. opii ℞x, spt. ammon. arom. ℥ss., aq. menth. pip. ℥jss., 6tis horis.

I need not weary you by reading Mr. Mead's daily record of the case. It will be sufficient for me to say that the patient's wound went on remarkably well. It was dressed on the third day, when there was a little redness about it, but no discharge; and at subsequent dressings the discharge was never more than just sufficient to stain the antiseptic gauze. As regards his general condition, he soon rallied from the shock of the injury. The temperature was normal, or almost normal, throughout, and he ate and slept well. I will pass on to the notes of September 18, when I found him up and about the ward, with the wound quite healed. Upon passing my hand over the injured part as the man was standing before me, I was astonished to feel a peculiar sensation which at once induced me to make a careful examination. Upon requesting the patient to lie down, there was felt to be a continuous vibratory thrill, most plainly to be perceived over the seat of the wound, but extending upwards as high as the groin, and downwards to the lower level of the popliteal space in the course of the femoral vessels. This is not inaptly compared by my clerk to the "kind of sensation one experiences when placing the hand on the chest of a purring cat." Beneath the wound, in the course of the femoral vessels, was an oblong swelling, soft and easily compressible, in which was a distinct pulsation. Along the whole course of the femoral vein was a continuous, rough, blowing murmur, which, when heard with the bin-a-ural stethoscope, was positively painful to the ear. The limb below the knee appeared to be swollen, and upon

measurement proved to be actually slightly larger than the one on the opposite side; the superficial veins were not, however, enlarged.

Such, then, gentlemen, is the history of the case, and the first point which we shall have to consider is the diagnosis—what was the nature of the lesion, and to what result had it led? It cannot be doubted from the character of the symptoms, taken in conjunction with the course of the ball through the limb, that there had been some serious injury to the femoral artery. What, then, was the nature of this injury. Was this a case of *traumatic aneurysm*, or was it an *arterio-venous aneurysm*?

*First*, Was it a traumatic aneurysm? Might, in fact, the following chain of events have occurred? That the ball in its passage through the limb had bruised, but not cut the artery; that the injured coat had subsequently sloughed, but before the artery had given way the parts around had become so condensed that the effused blood was enclosed in a cavity, and surrounded and limited by a dense layer of plastic matter forming a distinct circumscribed sac.

For three reasons I am inclined to think that this was not the case. 1. Because in these cases there is a tumour of tolerably firm consistence produced by the inflammatory matting together of the tissues; whereas here we had a soft, easily compressible swelling. 2. Because in the traumatic aneurysms there is a *distensile* pulsation synchronous with the beat of the heart; and here we had a tremulous, jarring vibration. 3. Because in these cases there is a broken, rhythmic murmur; whereas here the murmur was of a continuous, swelling character.

*Secondly*, was it an arterio-venous aneurysm? Clearly, if it was, the bullet must have passed between the artery and vein, and some of you might be inclined to doubt whether such a thing could occur without lacerating the vessels. Mr. Hulke, however, records an instance in which this actually did happen, in the case of a man who was shot in the thigh, and died rapidly of blood-poisoning. At the post-mortem examination the bullet was found to have passed between the artery and vein, its track being marked by a small ashy-grey slough in their walls, the exfoliation of which had begun. The surrounding tissues were so consolidated and matted that any extravasation of blood would probably have been hindered. Both vessels were unobstructed. (a) Therefore such a thing is possible.

Now, one of the most prominent symptoms in our patient's case was the presence of a peculiar vibratory thrill, which is highly characteristic, and which results from the impulsion of arterial blood into a vein, and thus a meeting of the two currents. And it was the presence of this peculiar thrill which mainly led us to conclude that we had to deal with an arterio-venous aneurysm. But these aneurysms, as doubtless you are aware, are of two kinds, and the next point we had to determine was whether this was a case of *aneurysmal varix*—that is to say, a direct communication between the artery and vein,—or a *varicose aneurysm*, in which an aneurysmal sac is developed between an artery and vein, and communicates with both. The history agrees best with the view that it was the former; that the bullet, in its passage through the limb, had passed between the two vessels, bruising their contiguous surfaces, but not actually cutting them through; that the adhesion of the artery and vein had taken place around the site of injured tissue, and subsequently the damaged spot in the vessels had given way, and a direct communication had been established between the two. Secondly, the appearance of the tumour favoured the idea that the case was one of aneurysmal varix. It was an oblong, soft, and easily compressible swelling, and felt like a dilated vein, differing from the firmer, harder, and more oval or round enlargement of varicose aneurysm, in which the symptoms partake more of the character of traumatic aneurysm. We seemed, therefore, to be able to come to the conclusion that this was a case of aneurysmal varix.

These cases were first described by William Hunter in 1761. He stated that they always arose from injury—that is, by the transfixion of an artery and a vein lying in close contact by a sharp instrument, and the subsequent adhesion of these apertures together in such a manner that the two tubes communicated, and a mutual transmission of blood between them was freely permitted; that the cases in which

(a) *Clinical Society's Transactions*, vol. viii., page 173.



the accident generally happened were instances in which the brachial artery was punctured in bleeding from the median basilic vein. Since his time, other traumatic causes, as gunshot wounds, injury from fragments of comminuted fracture, and even simple contusion, have been recorded.

The investigations and recorded cases of Bransby Cooper, Porter, and Perry have, however, proved that this disease may occur, without any injury, from thinning and giving way of the coats of the vessels, adhesion having first taken place between them.

When I was Surgical Registrar a case occurred here, under the care of Sir Prescott Hewett, which induced me to believe that there was a third cause, namely, that there might be a congenital communication existing between an artery and a vein, leading to this form of disease. The case was that of a girl, who was admitted with the history that ever since birth the veins of the right thigh had been noticed to be enlarged. When admitted, the femoral vein was found to be much dilated, and in it could be felt a very distinct vibratory thrill, which could be traced up to the junction of the two iliac veins in the vena cava. A very loud continuous blowing sound could be traced up the vein to the same spot; (b) and the only conclusion to which I could come was, that there was a congenital communication between the right iliac artery and vein where these vessels cross one another.

And now what is the result of this communication between an artery and vein upon the vessels themselves? It is quite clear that some of the arterial blood must find its way into the vein in consequence of the arterial current being stronger than the venous, and thus a meeting of the two streams takes place. In consequence of this the vein at the seat of communication becomes dilated into a fusiform pouch, and its coats thickened. The veins of the part generally are also enlarged, nodulated, and thickened. The artery below the point of communication becomes contracted, because it carries less blood than normal, part of its proper supply finding its way into the vein, and, as a consequence, the limb below the aneurysm is colder than on the opposite side. At the same time the proximal end of the artery becomes dilated.

With regard to the symptoms by which you would recognise this condition, I need say very little more than has already been said in speaking of the diagnosis in our patient's case. We have, first, the *vibratory thrill*, which is produced by the meeting of the currents. The tension of the coats of the artery produces a continuous flow of arterial blood into the venous tumour; while at the same time the wave of blood at each beat of the heart produces a corresponding impulse in the flow of blood through the tumour, and so establishes the vibratory character of the thrill. Secondly, we have a loud, harsh, rasping murmur, which is, moreover, *continuous*, and in this fact differs from the broken and rhythmic murmur of an ordinary aneurysm, and affords, as was first pointed out by Nélaton, an important element in our diagnosis. The sound is peculiar, and has been compared by various authors to many different things. Porter compares it to the noise made by a fly in a paper bag. To my mind it forcibly resembles the noise made by the engines of a steamship when labouring in a heavy sea. Then, as a third symptom, we have the dilated condition of the veins and their pulsation, so that they assume a more or less arterial character. This was not noticeable in our patient's case, for it is a condition which comes on slowly; but we had, nevertheless, the enlarged condition of the leg, which was no doubt due to venous engorgement, that will subsequently lead to dilatation. Lastly, there is the coldness of the limb below the point of communication, and in some cases a diminution in the force of the pulse on the affected side.

And now, in conclusion, just a word or two about the treatment; and here we are surrounded by difficulties. In many cases, it is true, nothing requires to be done, and the disease occasions so little inconvenience and shows such a slow tendency to advance that no operative interference is necessary, and the application of an elastic bandage or stocking to support the enlarged veins is all that is requisite. In the *Clinical Society's Transactions* a case is recorded by Mr. Hulke, which in many important particulars resembles the case of our patient upstairs. In this instance the aneurysmal varix, which was the result of a gunshot wound

of the thigh, had existed for three years. It caused great weakness and pain, which quite disabled the patient and laid him aside from work. In addition it had caused an eczematous condition of the limb, and a small, very painful superficial ulcer on the shin. After various plans of treatment by pressure had been adopted without avail, he was supplied with an elastic stocking reaching from the foot to the groin, with a small pad placed upon the spot of inoculation. With the uniform and efficient support thus afforded he was able to steadily follow his employment with but little inconvenience; so that, as Mr. Hulke writes, "the relief from the stocking is so great that the man himself would reject, and I should not feel justified in advising, any direct surgical interference." (c)

But this is not always the case. Sometimes the disease may extend so rapidly as to threaten the patient's life; or, at all events, entirely incapacitate him from following any active employment. What then is to be done? The ordinary methods of treating aneurysm, such as pressure (either digital or instrumental) on the artery above, or the Hunterian method of ligature, are not applicable to a case of this sort. Those measures aim at diminishing the flow of blood through the sac, and thus causing a fibrinous deposit on its internal surface; but here there is no defined sac, and the constant flow of blood through the dilated vein would impede rather than favour this condition. Direct pressure and flexion, when applicable, appear to have had no beneficial result in cases in which they have been tried, nor, indeed, could we expect that they would have. The cure of a disease of this kind must be effected by the cutting off of the communication between the artery and vein; and this is not likely to be achieved either by direct pressure or by flexion.

The only operative procedure which appears to hold out any hope of success is that of ligature of the artery above and below the point of communication. We must bear in mind, however, that the risks of this operation are considerably greater than those of ordinary ligature of the femoral artery, and that it is one not lightly to be undertaken.

What I propose to do, therefore, for our patient, is to apply well-regulated and efficient support to the whole limb from the foot to the groin by means of a carefully adjusted "Martin's elastic bandage," and keep him under observation. Should the disease make but little progress and not cause him any great amount of inconvenience, so that he is able to follow some light occupation, I shall counsel him to leave matters alone and to

"Rather bear those ills he has  
Than fly to others that he knows not of."

On the other hand, if the dilatation of the veins increases rapidly, so as to entirely incapacitate him from work, and especially if the patient's life is threatened from hæmorrhage, I shall take the opinion of my colleagues as to the advisability of tying his artery above and below the point of communication.

## HYDATID DISEASE IN VICTORIA.

By JAMES W. BARRETT, M.B., Ch.B. (Melbourne Univ.).

THE great prevalence of hydatid disease in Australia, and the considerable mortality which it occasions, give medical practitioners in this country an opportunity of studying it which European observers apparently do not possess. It is on this account, therefore, that I venture to draw the attention of the medical profession in Great Britain to a few points of interest connected with its causation, pathology, clinical characters, and treatment. Its detailed anatomical characters are already so well known that no reference to them is necessary. The disease is very common in Victoria, especially in the flat and pastoral districts, where both the human beings and the beasts inhabiting the vast plains not unfrequently obtain their water from common water-holes, dams, and creeks. The beasts include, for the most part, cattle, sheep, horses, dogs, and in some places kangaroos.

It has long been known that the hydatid (*echinococcus*)



is produced by the ingestion of the ova of the *Tænia echinococcus*, the embryos of which, when liberated in the stomach of a suitable host, make their way as pro-scolices through its coats, and either get deposited in the liver, or else obtain an entrance into the general blood circulation, whence they are deposited in more distant organs. Once they obtain a lodgment, they become cystic and are hydatids. If in this condition they are swallowed by a suitable host, they develop into the *Tænia echinococcus* in the alimentary canal. Dogs, and especially stray ones (scavengers), are very numerous in Victoria, and in the pastoral districts large numbers are kept by shepherds. Dr. Thomas, of Adelaide, examined a number of dogs in Adelaide and in Melbourne, and found that in the former city 40 per cent. were infested with the *Tænia echinococcus*. In Victoria very many dogs are so affected, but the exact proportion is not definitely determined. This being so, it is very easy to understand that many of the ova (which are passed in myriads with the dogs' fæces) find their way into the water-holes and into the surrounding pasture.

Of the tens of thousands of sheep and the large number of cattle who feed on these plains, and obtain their water from the common source, some are sure to swallow the ova. As a result, hydatids are frequently developed in their organs (generally the liver), as everyone who has any experience in the matter knows too well. The dogs are often fed on the flesh of these animals, and so in turn swallow the hydatids, which in their alimentary canal become *Tænia echinococci*, and so the cycle of development is complete.

Dr. Thomas attributes the great prevalence of *Tænia echinococcus* in the dogs of Adelaide to the easy access which the dogs have to the slaughter-houses. It seems that they there devour viscera and flesh in which these echinococci are probably contained.

Bearing these facts in mind, it at first sight seems an extraordinary circumstance that so many human beings living in the pastoral districts should escape the disease. They owe their immunity to their habit of drinking tea to excess; i.e., they make tea almost their only beverage, and by boiling the water in its preparation destroy the hydatid embryo. Of course if echinococci existed in man alone they would soon cease to be, since dogs no longer being able to swallow echinococci, could no longer suffer from *Tænia echinococcus*.

Victorian medical practice furnishes numerous examples of hydatid disease appearing as a result of undue familiarity with dogs on the part of human beings. Thus, children have been known to play with them and to crawl into their kennels, families to make household pets of them, and, as a result, they have suffered in many instances from repeated attacks of hydatid disease. I suppose the reason that the disease is not so common in Europe is that the water-supply is better regulated, and dogs, sheep, and man do not obtain their water from a common source. Even in Victoria the disease is not nearly so frequent in the cities as in the country.

**Pathology.**—As everyone knows, the wall of an hydatid cyst comprises three layers. An outer one (adventitia) is formed by the condensation of the tissues in which the animal is situated. This layer is thick, somewhat fibroid, and vascular. The inner two layers are proper to the hydatid, and are not attached firmly to the outer one except during the decay of the parasite. Of the two, the outer is known as the laminated, and the inner as the germinal membrane. Echinococci therefore obtain their nutriment by imbibition, and their growth is limited by (1) failure of developmental energy; (2) failure of nutritive supply. Like all other organised bodies, they have a period of growth and reach a maximum size, then cease to grow, undergo retrograde changes, and diminish in size. Unfortunately, however, the limit of development is not the same for all individuals, and too often the life of the host is destroyed before it is reached.

It is now necessary to draw attention to a most important distinction between different kinds of hydatid cysts, which are divisible into two varieties—(1) the unilocular variety, and (2) the multilocular variety. The latter includes those hydatids in which large numbers of secondary cysts are formed in the interior of the primary one. The secondary (daughter) cysts, of course, have only two coats, i.e., those proper to the echinococcus, the germinal and the laminated layers. The main cyst may be simply packed with the secondary cysts, or may contain fluid as well.

After the limit of growth is reached, hydatid cysts may either (1) degenerate, (2) rupture, or (3) suppurate. They may, however, rupture or suppurate before it is reached, but if uninfluenced by treatment their course is tolerably uniform.

1. Once the developmental process ceases, for either of the reasons mentioned previously, a series of degenerative changes ensue in the cyst and its contents: the walls become thickened and *the coats inseparably blended*; the echinococci themselves degenerate and become unrecognisable; the fluid partly or wholly absorbs; and contraction of the whole mass steadily progresses.

(a.) If the cyst be unilocular, it becomes converted, first, into a thick-walled cyst containing a little fluid, and ultimately into a solid fibrous mass, which in course of time may become calcareous. In this process of contraction it is obvious that considerable traction may be exercised on any adhesions which may have formed during its growth. In one case, a patient, who was not aware that she had ever suffered from hydatid disease, was admitted into the Melbourne Hospital, exhibiting symptoms of pyloric obstruction. She became very emaciated and died. At the autopsy there was found to be situated near the pylorus a solid, round, calcareous body, the product of the degeneration of an hydatid cyst in the small omentum. Old adhesions extended on every side, and by traction on them both the pylorus and transverse colon had been constricted and totally obstructed; hence the fatal result. Sometimes calcification takes place in the cyst-wall during the process of contraction.

(b.) If, however, a cyst is multilocular, the degenerative process assumes a form of which I can find at present no description. When they reach their limit of development the cyst-wall undergoes exactly the same changes as it does in the unilocular cysts. The fluid both inside and outside the secondary cysts absorbs; and the material left inside the main cyst, consisting of echinococci and cyst-walls, becomes converted into a soft, non-homogeneous, greenish mass, which shows traces of the cyst-walls from which it is formed. To this form of degeneration, which is peculiar to the multilocular cysts, I propose to give the name of *gelatinoid degeneration*. It has only recently been recognised even in the Melbourne Hospital, where it was forced under notice by the following case, which I reported in the *Australian Medical Journal*, June 15, 1883:—

J. T., aged twenty-seven, admitted May 12, 1882, under the care of Mr. T. N. Fitzgerald. Four years ago the patient first noticed a small lump situated deeply in the left hypochondrium. It was for a long time painless, and grew slowly. Twelve months since, he was thrown from a cart, and injured his side; and six months after, noticed that the tumour was rapidly enlarging, and was causing him great pain. It was tapped for hydatids, but no fluid obtained. When admitted, the patient was a muscular man, and seemed to be in good health. There was bulging in the left hypochondrium, where the edge of an enlarged spleen could be felt. The enlargement of the organ was considerable; by percussion it could be made out to extend upwards posteriorly, where it encroached on the left lung; upwards laterally to the sixth rib, and forwards to within three inches of the mid-line. There was an obscure feeling of fluctuation in the hypochondrium. Measurement of the body showed that the distance from the umbilicus to the spine was two inches greater on the left than on the right side. The apex-beat of the heart was not displaced, but there was an apical systolic bruit. A consultation was held on June 6, 1882, when it was decided that the probabilities were in favour of the existence of an hydatid cyst rather than that of a simple enlargement of the spleen, because (1) of the obscure sense of fluctuation, and (2) of the projection of the tumour upwards towards the lung. A fine trochar was passed into its lower part, and was felt to enter a thick-walled cavity, in which the point could be freely moved. No fluid came away, and a whale-bone stilette was therefore passed through the canula into the cavity, but without result. A few days afterwards the patient was seized with a rigor, followed by vomiting, pain, and a rise of temperature to 104°. He sank rapidly, and died of collapse, symptoms of peritoneal inflammation not being marked.

At the autopsy, made twelve hours after death, the heart weighed three-quarters of a pound. The muscoli papillares of the left ventricle were undergoing fatty degeneration: hence the bruit. Both lungs were congested at their



dependent parts, and the pleural surfaces were studded with petechial ecchymoses. At the lower edge there were several wedge-shaped patches of congestion. The spleen weighed seven pounds and a half, and contained two hydatid cysts. The upper one, which was unilocular and large, contained decomposing fluid. It was pressing upwards, and so compressing the left lung. Ulceration had so progressed that only a thin layer of diaphragm intervened between the hydatid and the left pleural cavity. The lower cyst, which had been tapped, was smaller, and had tough fibroid walls; it was full of secondary cysts undergoing *gelatinoid degeneration*. At the site of tapping there were adhesions. There was no general peritonitis, but there was some fluid blood in the peritoneal cavity. Peyer's patches and the mesenteric glands were enlarged, and there were petechial ecchymoses on the small intestines. The blood in the large veins was frothy and decomposing.

At the time of tapping, no one could understand why no fluid came away from a distinct cyst, and why the stilette was not even moistened. However, the gelatinoid degeneration explained it.

More recently, we had another case of multilocular hydatids of the liver, in which the main cyst was of enormous size, and contained hundreds of secondary cysts, in some of which degeneration had just begun. As in the unilocular form, calcification may ensue, and the whole hydatid become a calcareous mass. Whilst making post-mortem examinations of the bodies of persons who have died of other diseases, I have seen very many hydatids in various stages of degeneration. I have thus found them in many different organs, but mostly in the liver. Very frequently their existence was not even suspected during life.

2. *Rupture* rarely occurs spontaneously, but has occurred whilst a grooved needle has been introduced into a cyst or during manipulation. It seems to be unattended with any danger, provided no air obtains admission. It is followed by the appearance of the *hydatid rash*, a form of erythema attended with great itching, which appears all over the body as a result of the absorption of some part of the hydatid contents, and lasts a few hours or days. So far, I have known of no case where rupture has been followed by a fatal result, or by further hydatid development, at all events for some time.

3. *Suppuration* does not generally occur unless the hydatid has been tapped, but nevertheless does occur spontaneously sometimes. As a result the echinococci are killed, and the cyst becomes equivalent to a thick-walled abscess. It has been said that cancer (scirrhous and medullary) and hydatid are related to one another causally, because they are not infrequently co-existent.

The irritation of the hydatid probably determines the cancerous growth to the organ in which the hydatid is situated.

*Hydatid fremitus* is a peculiar vibration attendant on percussion of a hydatid cyst. It is noticeable just after the blow is struck with the finger, and seems to be most readily perceived in multilocular cysts in which the main cyst is tightly filled with secondary cysts.

*Treatment of hydatids* is almost purely surgical, since at present there is no remedy which materially influences their growth, once they obtain a lodgment. Remembering that the parasite has a definite period of growth, after which it undergoes degeneration and its walls contract, and that, on the other hand, its removal means a surgical operation, with its attendant risks (which may or may not be slight), it follows that an effort must be made to procure this degeneration and contraction, provided that the presence of the cyst is not incompatible with the preservation of health.

As already shown, their existence is not necessarily injurious to health; so that, in the first instance, it must be considered whether the hydatid is likely to degenerate if left alone. If it is large enough to have caused the victim to seek advice, it is not likely that it will be benefited thus, but in some cases may be left for a little time. Delay in suitable cases can do no harm, and may usher in the commencement of degeneration and contraction.

The remaining cases, which require treatment, are divided into two great groups—(a) those seen before suppuration has taken place in the cyst, and (b) those seen after suppuration has occurred.

(a.) Before suppuration has occurred, treatment is adopted with a view of causing contraction. This may often be

accomplished by tapping them with a capillary trochar, and removing a few ounces of fluid—not more. This withdrawal of a small quantity of fluid is said to be followed by an exudation of albumen into the non-albuminous hydatid fluid, and is often followed by the death and degeneration of the parasite. If it fail to do so, the tapping may be repeated. If, on tapping, no fluid is obtained, it follows that the cyst is multilocular, and is either (1) full of growing cysts, or (2) undergoing gelatinoid degeneration. If the wall is very thick and tough, it is probably the latter.

Capillary trochars may be plunged into almost any part of the body without risk. I have seen a physician try to find a hydatid cyst in the liver by plunging a capillary trochar into that organ in half a dozen different directions. At last he found, apparently, a very large branch of the portal vein; but no ultimate harm resulted.

If this tapping fails to destroy the vitality of the parasite, and the cyst continue to grow, if it causes serious inconvenience, or if it suppurate, then it must either be (1) opened, emptied, and drained, or (2) removed by operation. It must be remembered that nearly all hydatid cysts are met with in parts and organs formed from the splanchnopleure; hence to reach the cyst the trochar must pass through one of the various subdivisions of the pleuro-peritoneal space.

The description of treatment given here is wholly directed to cysts situated in these parts, since in the brain they cannot be accurately diagnosed, and are beyond the reach of surgical treatment; and in the other parts formed from the somatopleure or its divisions, the treatment is conducted on the same principles, but is of course infinitely more simple.

1. If the cyst is to be opened and drained, care must be taken that none of the fluid escapes into the serous sacs. To prevent this, adhesions must be formed between the opposed surfaces, and the tumour tapped through them. Some adhesions always form naturally at the projecting part, but, as a rule, they are not very extensive, since an hydatid is not an inflammatory growth. With regard to the pleura, adhesions form easily. In the peritoneum they form less easily, but may be set up by *Mr. Fitzgerald's method*:—Tap the hydatid at its most prominent part with a fine trochar, and let fluid come away. (If the canula, however, chokes, let things be for a few hours.) Next, stick a number of harelip-pins through the abdominal wall into the hydatid, disposing them in a circle round the trochar. Leave everything for a day or two, and then remove them. Adhesions will be formed, and the opening may now be enlarged either with dilators (tents, etc.), or by cutting with a bistoury. The sooner the contents of the cyst, including the inner two fine layers of its wall, can be removed, the more quickly will recovery ensue. Many surgeons enlarge the opening by dilatation or cutting, and then seize these two layers with their fingers or with forceps, and slowly drag them away.

It will be seen at once that the larger the opening, the freer the drainage, and the more perfect the antiseptic precautions used, the more rapid will be recovery. The adventitia left will contract, and the cavity granulate. At the same time it will be understood how easily decomposition of the contents may occur, and septicæmia result.

Recently, my father, Dr. James Barrett, of Albert-park, was called to see a case of suppurating hydatid of the liver which had been tapped. An attendant had, however, allowed a probe to drop into the cavity. My father dilated the opening with tents until it was very large indeed, then with pharynx (crocodile-billed) forceps he succeeded in extracting the probe (black and oxidised) from the bottom of the cavity, which extended nearly to the spine. The patient made a good recovery.

2. Sometimes, from the enormous size of a cyst, which if opened would kill by suppuration, or from the existence of suppuration in a cyst, it is necessary to remove them by operation. In the lungs no special operation is necessary, because they can be removed by the method just described. From the abdominal viscera they must be removed by abdominal section or some other operative method. There is nothing special to note in the operations, which are performed in the usual manner. As much of the adventitia should be removed as is compatible with safety, as it is apt to suppurate when left behind.

To recapitulate, the treatment of hydatid disease comprises—(1) leaving the cysts to nature; (2) tapping with a capillary trochar, and removing a little fluid; (3) opening them and draining the cavity, and removing the inner two



layers of the cyst-wall; (4) abdominal section, or other operative measures adapted to remove them *en masse*.  
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## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,  
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(Continued from page 654.)

### MALARIAL CACHEXIA—Continued.

#### *Blood Diseases of Malarious Origin.*

MEDICAL men in the East have reason to be proud of the facts that, recently, Dr. H. Vandyke Carter has added considerably to our knowledge of the *Spirillum* of Relapsing Fever, (a) and that, Wucherer having detected the filariæ of chylous urine in Bahia in 1866, Dr. T. R. Lewis, A.M.D., now of Netley, made the independent discovery of these nematodes in lymphuria in 1870 (I had an early opportunity of seeing these microzoa). In 1872, Dr. Lewis first observed filariæ, as hæmatozoa, in the blood of a native patient in my hospital. Indian physicians have still, however, a wide field of research open to them in investigating the *Bacillus Malariae*, and in studying those morbid conditions of the elements of the blood itself which are marked characteristics of malarious cachexia—Anæmia, Pernicious Anæmia, with marrow, etc., lesion (if there be such a disease, apart from the most advanced condition of anæmia, as Dr. Andrew fairly doubts), Leucocythæmia, Melanæmia, Blood Disintegration, and consequent deposit of pigment, etc. Up to the present time, these are only known to differ in degree from the corresponding blood-lesions in Europe. As I remarked in speaking of the light which has still to be thrown upon the pathology of Indian renal disease, the most promising field for such research appears to lie in those flat and humid districts of Madras and Bombay, in which Beriberi and Anasarca are most prevalent. Doubtless, these morbid states of the blood are generally far less developed in Europeans at present than they were during the triumphant career of VS. and mercury in India, when it was a common saying of considerable significance that we “went to India green, and came back yellow”; and when their generally cadaverous appearance led Theodore Hook to stigmatise old Indians as “Yellow-bellies.” Now the retired Anglo-Indian usually appears to have nearly as large a share of normal red corpuscles as his stay-at-home English neighbours have.

Mr. Hare quotes from Sir Ranald Martin a case of malarious anæmia, which must bring back the remembrance of many like it to old Indian practitioners. An originally plethoric officer, aged thirty-two, who was treated for Remittent Fever, with bleeding, leeches, calomel to salivation, with a continuous course of powerful purgatives, the diet consisting of sago and arrowroot, is described as being in a state of complete anæmia, with a pale, bloated, lemon-coloured complexion, and mossy, dry, scanty hair; the abdomen doughy and inelastic; the skin dry, harsh, and constricted. “This,” Martin adds, “is an example of simple uncomplicated anæmia, resulting from Intermittent and Remittent Fever, and their necessary treatment by blood-letting, mercury, purgatives, and low diet. The patient had been under able and experienced medical treatment, but the malarious influences proved too strong to be resisted even by his strong European constitution.”

#### *Hæmorrhages and Sanguinolent Oozings in Malarious Cachexia.*

We see, at the instant of the article, as the hue of the visage is changed by the arrest of arterial supply, that thick mulberry-coloured streams of grumous cruor escape from the nostrils and corner of the mouth. This form of so-called hæmorrhage is the type of those spontaneous oozings which take place in malarious cachexia, which are rarely, if ever, true hæmorrhage, but a voidance of the *débris* of disorganised blood no longer fit for the uses of the system.

Wherever there is such dyscrasis of the blood, hæmorrhage from wounds, post-partum, and in menstruation is likely to become formidable.

Although, unquestionably, Indian Anæmia was in old times largely due to blood-dyscrasis directly resulting from spoliative treatment, marsh poison certainly produces blood-disease in that country. Hare, who put down the use of calomel and blood-letting in Indian fevers, writes:—“In Burmah, at Rangoon, where I witnessed malaria in its most intense forms, I had young healthy patients so poisoned that their blood became as much decomposed as by the poison of a snake-bite, and hæmorrhage took place from the gums and nostrils; and, in one man with an open bubo, there was uncontrollable dark venous bleeding. These cases were of frequent occurrence, and the face and lips had a blue venous tinge.” I think that, in all probability, there was a scorbutic taint in the above cases. Among the many specious reasons upon which the old practice of blood-letting in fevers was based, was the idea of getting rid of bad blood, suggested by these spontaneous oozings of sanguinolent serum in which, generally, clots do not form, which are, as I believe, Nature’s own mode of clearing the system of faulty blood. These spontaneous discharges are frequent in India. Sir Ranald Martin told me that, being on service in a jungly district, he was attacked by the fever which prevailed in the force, and became insensible. He awakened from complete unconsciousness, and found himself drenched with blood which had flowed from his nose. Certainly these spontaneous attacks of epistaxis, where the brain has been a good deal affected, appear to do far more good than our leechings do. In the case of an Indian brother officer which I saw after my return to England, violent epistaxis occurred in cholæmia from gall-stone. It was most profuse and obstinate, requiring plugging, but it appeared to be decidedly beneficial, although the sick man was more than seventy years old. I lately heard of a young gentleman whose health had been much tried in a Civil Service examination, who, after the ordeal was over, had violent epistaxis which recurred for about eight-and-forty hours. When his son-in-law landed in England, James the Second, being doubtless painfully overworked in mind and body, had several attacks of bleeding from the nose. His death was caused, thirteen years later, by apoplexy.

I was a good deal concerned, many years ago, in the case of a young officer in India who was cashiered for drunkenness. The chief morbid result of the chronic alcoholic poisoning which he had brought upon himself was almost uncontrollable hæmorrhage from the nose and from an ulcer upon the prepuce. I not long since heard of a poor boy, suffering from purpura, who is subject to violent attacks of epistaxis, which leave him exhausted and anæmiated, but he recovers colour and strength in a few days. A delicate and pale, but healthy, girl of twelve, born in India, but taken home in a few months, generally has epistaxis just as a cold in the head is passing off. Epistaxis is of very frequent occurrence in India, especially in spleen cases. I have not seen that *periodic epistaxis* curable by quinine which has been observed elsewhere. (b) A young and active native subordinate (of European habits) of my own in Calcutta, used from time to time to get most formidable hæmorrhage from the bowels. Internal piles were not the cause. He always recovered perfectly in a day or two. It must be recollected that here, as in menstruation, Nature elects her own portal—some highly vascular surface, most commonly the nose or intestinal mucous membrane—for collecting and voiding the offending blood. She does not call in the surgeon, whose leeches and lancet do not remove the blood when and whence she determines to eliminate it. Consequently, it is not surprising that this clumsy withdrawal of good living blood, of which the system had less than enough, often killed the sick or left them blanched for life. Profuse as these spontaneous “hæmorrhages” often are, we ought, with due regard to the patient’s strength, to be usually disinclined to check them. Almost uncontrollable hæmorrhage from leech-bite was noticed by most of the older Indian writers. Twining says: “The altered appearance of the blood in many of these fevers, which arise from exposure to the malaria of the jungles, is very remarkable, and merits careful observation. Connected with this morbid condition of the blood, there appears a disorder of the vascular

(a) “*Spirillum* Fever . . . as seen in Western India,” 1882.

(b) “*Copland’s Dictionary*” (Art., “*Intermittent Fever*”) and *Med. Zeitung*, No. 33, 1836.



system which favours prolonged and profuse oozing of blood from leech-bites." Hare notices the frequent occurrence of hæmorrhage (most generally in fowls, etc.) after the bite of some poisonous snakes. About a year ago an old friend asked me what he was to do for dreadful attacks of ague, which commenced soon after his retirement in England. More than thirty years previously he had a very dangerous attack of Jungle Remittent at Chittagong. I took no blood from him then. But, upon his getting pain and swelling of one testicle, a frequent sequel of Bengal Fever, I applied a few leeches. He felt relieved, but, having gone to sleep after I had attended to the bites, he bled immoderately. Twenty years later, the state of the testicle prevented him from playing cricket. He is now a great pedestrian and lawn-tennis player, but probably a chill would bring on a return of Chittagong Fever, and perhaps of local pain. In anæmic children, lancing the gums has occasioned serious loss of blood.

Under this head I would place the transitory *Hæmaturia* or *Hæmoglobinuria*, of which I have seen cases in anæmic European children in Bengal. Mr. H. De Tatham gives (c) a case of *Hæmaturia* in a native suffering from Scurvy. In the August number of the *Practitioner* for 1868, Dr. Lionel Beale wrote upon "Periodic *Hæmaturia*," remarking that the disease is perhaps, after all, more closely allied to ague than to any affection of which hæmaturia is a symptom. The researches of Prof. Murri, of Bologna, appear to bring us still nearer to the conclusion that at least some cases of *Hæmoglobinuria* are of malarious origin. A very full account of this disease, which is now properly designated by Lebert as *Paroxysmal Hæmoglobinuria*, as the urine does not contain normal blood-corpuscles, but hæmoglobin, is given by Dr. Robert Saundby. (d) Dr. Saundby mentions that there has been a previous history of ague in several of the cases, and that there has been splenic enlargement in some of them, but he considers that these states are exceptional. In its typical form the attack resembles ague; and it is added that "a few cases have resided for a length of time in a hot climate." "Quinine has seemed of most service." He holds that "the relation of this disease to ague is exceptional and not well made out. As the attack is generally excited by exposure to cold, he recommends residence in a tropical climate as a means of warding off attacks. We know that this measure has been tried, but we doubt its prudence. We have seen an attack of this kind (I called it *Hæmaturia* then) on an unusually cold morning in Calcutta; and undoubtedly there are few tropical climates so free from malaria as to invigorate the constitutions of those in whom "the microscopical characters of the blood are those of slight anæmia."

The late Dr. Robert Druitt, having been attacked, with "intermittent hæmaturia" in 1866, attributed to a severe chill when he was suffering from overwork, went to Madras in 1873 and 1874, but we are told (e) that his disease progressed with unequal steps, but always downwards until his death in May last. I cannot think the voyages to and fro, and residence in such a climate as that of Madras, at all likely to benefit such a case as this. *Hæmoglobinuria* is evidently one of Nature's modes of clearing the system of faulty blood. Doubtless, medical men in India now distinguish true spontaneous hæmorrhages from discharges of hæmoglobin. My friend Dr. Francis directed attention to this point in 1868. (f)

At the International Congress of 1881 a paper by Dr. Dreschfeld and Mr. Stocks was read, "On the *Hæmoglobinuria* produced by Large Doses of Chlorate of Potash," (g) and a discussion followed. A woman having taken about an ounce and a half of solid chlorate of potash in twenty-four hours for a slight sore-throat, "was suddenly taken ill with cyanosis and dyspnoea, and passed masses of hæmoglobin both per rectum and per vaginam; the urine and vomited matter also contained masses of hæmoglobin. On the third day she became slightly jaundiced, while the cyanosis passed off. On the fourth day she died." Beyond an enlargement of the spleen, which was painful to the touch, no organ was found diseased. Either previously

existing splenic disease rendered the blood liable to dissolution, or a poisonous dose of a potash salt caused the splenic and sanguineous lesions. I have always avoided the use of chlorate of potash in diphtheria, and of large doses of other potash salts in every form of ataxic disease.

Twice in Calcutta I noticed the occurrence, with an interval of many years, of a type of cholera in which the rice-water stools were tinged with blood. On the first occasion a considerable number of these cases did so well that I persuaded myself that this moderate loss of blood from the intestinal surface was a good symptom. In the second outbreak the disease was so fatal that my favourable impression was dispelled. In 1867, Mr. John F. Foster published (h) the case of an artilleryman at Cawnpore who had suffered during the whole of the previous year from constant but painless diarrhoea, and who was brought to hospital after he had taken part in a brigade parade that morning. At 3 p.m. his stools were very frequent and in large quantity, consisting "of clear fluid of a deep crimson colour, showing no tendency to coagulate." There was no straining or tenesmus. The abdomen was hot and very tender. Pulse fast and feeble; tongue coated; head hot, with clammy perspiration upon his brow; countenance extremely anxious; great restlessness and thirst. In an hour he was collapsed, and purged every ten or twelve minutes. At 9 p.m. the collapse was greater, extremities cold, cramps in arms and legs, abdominal tenderness less, countenance shrunk, voice feeble, and pulse barely perceptible. Constant yawning and extreme restlessness. No vomiting or sensation of sickness. The motions became gradually of a lighter colour, and contained flocculent particles. Collapse increased until his arms and legs became blue; pulse imperceptible at the wrist; faculties unimpaired. He expired with difficult breathing in twenty-two hours from the commencement of the attack. The ascending colon was slightly congested, and many of the solitary glands were surrounded by a thin zone of blood effused beneath the mucous membrane; but there was no ulceration or breach of tissue. Both small and large intestines were distended with clear fluid of a light yellow colour, in which floated numerous flocculent particles like those in the rice-water dejections of cholera. The spleen weighed one pound eight ounces, was slate-coloured, and of very pulpy consistence. This patient had suffered from two attacks of hepatitis and one of splenitis; but not from dysentery, diarrhoea, or scurvy.

Similar as this case was, in some of its leading features, to one of hæmorrhagic cholera, I quite coincide in the opinion of Mr. Foster and the Editor of the *Gazette* that it was one of Remittent Fever; I would say a Pernicious form of that disease, closely linking it with true Cholera. The Editor mentions that similar cases were, he believes, met with in men of the 101st Regiment, who were saturated with malarious poison when that corps was stationed at Mooltan a few years previously. He adds, "The effect of malaria in inducing a state of the blood favourable to the occurrence of hæmorrhage is too well known at Peshawur." Two other cases, much resembling Mr. Foster's, of Pernicious Malarious Fever with bloody flux, are given by Baboo Ooday Chund Dutt. I have cited them in tracing the close relationship which exists between Pernicious Remittent Fever and Cholera. I only notice these cases here on account of their markedly hæmorrhagic character, although the disease which they characterise is no mere hæmorrhage.

In the above article Mr. Foster mentions that he has notes of a case of fever which came under his observation, which was rapidly fatal in consequence of *passive hæmorrhage from the whole of the mucous membrane of the lungs*—a characteristic occurrence in black death, sweating sickness, Pali Plague, and Mahamurree.

In a report published in 1842, (i) Mr. Leith notices a case of "*Intermittent Menorrhagia* of tertian type in an *Indo-Briton* (half-caste) wife of a soldier, which was cured with quinine given in repeated doses close on the expected time of return." I have seen a great deal of very troublesome menorrhagia in Bengal; but, perhaps by blamable oversight, never observed that it assumed a periodic character. There is generally amenorrhoea in splenic cachexia.

*Post-partum Hæmorrhage* is probably the greatest and most frequent danger attendant upon parturition in India. I shall revert to this subject in speaking of Puerperal Fever.

(c) *Bombay Medical and Physical Transactions*, 1876, page 276.

(d) *Medical Times and Gazette*, May 1, 1890, and February 4, 1891. *Ibid.*, March 4, 1892.

(e) *Ibid.*, May 26, 1893.

(f) *Indian Medical Gazette*, December of that year: "Periodic *Hæmaturia*."

(g) "Transactions," vol. i., page 398.

(h) *Indian Medical Gazette* for December of that year.

(i) *Indian Journal of Medical and Physical Science*, vol. ix., page 710.



*Hæmatemesis* is a not very frequent occurrence in splenic disease, but I know of two marked cases in officers. It was observed by Dr. Duncan Stewart that such hæmorrhage "often effects a salutary change in the diseased organ, and conduces to its cure." Doubtless, when the hæmorrhage is large, the size of the spleen is temporarily reduced; but, in my experience, hæmatemesis only adds gravely to the sum of splenic cachexia and its attendant anæmia.

Those practising in Bengal have abundant evidence of the fact that the marsh poison and deficient food induce extreme poverty of the blood. Sir Ranald Martin noticed that, in operating at the old Chandney Hospital at Calcutta, the blood often looked like thin claret. (k) I have repeatedly seen this, especially in a poor fisherman whose thigh I amputated in consequence of a desperate crocodile-bite. After every visible artery had been secured, there was oozing of thin dark blood from the whole surface of the stump until he sank.

With these expressions of states of blood-disintegration must be ranged the bloody sweats of plague and malignant fever described by Hodges and Huxham; (l) the "hæmorrhages," ecchymoses, and cardiac blood-concretions of scorbutus; and also the yellow suffusions, petechiæ, "flea-bitis," and black vomit of yellow fever, of the relapsing fever of India, of the yellow plague of the middle ages, and of certain grave forms of tropical paludal remittent.

The whole of the Indian blood-diseases ought to be carefully re-investigated in that country—a multitude of points, such as the following, being thoroughly wrought out in localities where malarial cachexia is most prevalent and of most extreme intensity, in both Europeans and natives. Hertz's observations on blood-pigmentation in anæmia should, as Sir Joseph Fayrer indicates, be practically followed out. Dr. Gowers found that 4 per cent. of cases of lymphadenoma were related to intermittent fever. This disease occurred very rarely in my Indian practice. The condition of the blood and viscera should be examined as far as possible in all such cases. Twenty-five per cent. only of Dr. Gowers' cases of splenic leucocythæmia were found to have either suffered from intermittent, or lived in an ague district. A complete series of observations upon the red and white corpuscles in Indian malarious cachexia is needful. What of progressive pernicious anæmia in pregnancy, which is not considered to be malarious, in India? What also of *leukæmia-myelogenica* in that country?

In the majority of cases, malarious anæmia is distinguishable by a single glance at the patient's countenance; but in some cases, especially in young women, the roundness (in reality, œdematous puffiness) of the face is, just at first sight, deceptive. In naturally florid Europeans, the colour of the lips and cheeks is sometimes misleading, but, in all severe cases, the blanched conjunctiva of the lower lid is distinctive. Daily examination of the eyelid is our guide in the employment of quinine, iron, and nourishing diet.

(To be continued.)

**BISMUTH AS A DRESSING IN OPERATIONS FOR CICATRICAL CONTRACTION.**—In a communication to the New York Medical and Surgical Society (*New York Med. Record*, November 10), Dr. Post relates a case in which the line of the incisions made into cicatricial tissue was filled with bismuth, sprinkled by means of a pepper-box, the powder adhering to the parts and forming a kind of scab. At each dressing another quantity was applied. This kept down exuberant granulations, while scarcely any inflammation took place, and but a very small amount of suppuration was present. He had since used the dressing in a number of cases, and with better effects than could be obtained by the use of any other application. He had also found, in granulating surfaces following burns, that bismuth diminished the amount of granulations, the contraction of which is the chief cause of the deformity. In neither children nor adults had the remedy caused any ill effect.

(k) Huxham says, in speaking of bloody sweat, "It is observable that, when this sort of hæmorrhage happens from the nose, the matter is a thin bloody ichor, not concreting as blood commonly doth from the nose of persons in health, or in an inflammatory fever." "Some chlorotic girls are vastly apt to bleed from the nose, and yet their blood doth but just colour a linen cloth."

(l) Huxham had a very fair idea of embolism and pigment plugging. "The *petechiæ*, *vibices*, or livid *stigmata* that very often attend these hæmorrhages, show that the Blood-globules are dissolved, or broken down, and enter into the serous arteries, *vasa exhalantia*, etc., where sticking fast, they form these appearances."

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### DEVON AND EXETER HOSPITAL.

#### THREE CASES OF FATAL INJURY TO THE SPINE.

[Reported by ARTHUR G. BLOMFIELD, M.D., House-Surgeon.]

##### Case 1.—Fracture of Fourth Cervical Vertebra—Immediate Paraplegia—Death.

(Under the care of Mr. CAIRD.)

WILLIAM B., labourer, aged thirty-five, was admitted into the Exeter Hospital on September 30, 1882. Three-quarters of an hour before his admission, while working as an excavator on the South-Western Railway, a quantity of loose earth fell, striking him on the chest, and knocking him backwards, so that the back of his neck came in violent contact with the buffer of the waggon he was loading.

On admission his extremities were warm, but he was suffering severely from shock. His voice was a mere whisper, and he complained of pain in the nape of the neck, but nowhere else. There was tenderness on pressure over the cervical spines, but no unnatural mobility, nor any sign of fracture or dislocation. The arms, chest, abdomen, and lower extremities were completely paralysed both as to motion and sensation. The respiration was most shallow and gasping, the diaphragm alone acting, but very feebly. He remained in the same state, respiration getting feebler and shallower, until 5 p.m., when he died, consciousness remaining until the last.

*Post-mortem.*—On dissecting down to the cervical spine there was found effusion of blood into the surrounding soft parts. The fourth cervical vertebra was fractured; the spinous process and laminæ were broken and separated from the transverse processes, so that they were quite loose and somewhat pressing upon the cord. The spinal membranes were full of extravasated blood at this point; the cord itself congested, but not lacerated. The rest of the body was not examined.

##### Case 2.—Fall from Steps while carrying a Sack—Immediate Paralysis of Chest, Abdomen, and Lower Extremities—Spinal Hæmorrhage—Death.

(Under the care of Mr. CAIRD.)

William B., a waggoner, aged forty, was admitted into the Exeter Hospital on September 3, 1883. Between one and two o'clock on the day of his admission, while carrying a sack of flour on his back up some steps into a loft, the steps slipped and he fell. He let go the sack of flour, which fell on to a table and broke it, and he fell to the ground between the steps and an oven. He tried to rise, but was unable to do so. He was admitted into the hospital about 5.30 the same afternoon. He was quite conscious, and complained of numbness all over the lower part of his body; he also complained of some little pain between the shoulders. There was no external evidence of fracture or dislocation of the spine. There was complete paralysis both of sensation and motion of the entire body from the level of the second rib downwards. The breathing was jerky and entirely diaphragmatic. He lay quite powerless in bed, but was able to move the arms about, and said he "felt them all right." There was retention of urine and erection of the penis. He remained in much the same state until noon next day, when he began to wander slightly, and the breathing became more jerky. Gradually he became unconscious, with symptoms of pulmonary congestion, and died at 5.30 p.m., twenty-four hours after his admission.

*Post-mortem.*—Back: No external marks of violence. An incision was made over the spinous processes from the sixth cervical vertebra to the lower dorsal region. On dissecting back the soft parts there was seen some effusion of blood into the muscles and neighbouring parts. On opening the spinal canal the spinal cord could not be seen, and the entire canal from the level of the sixth cervical region to low down in the dorsal was full of blood. On removing it the spinal cord and its membranes were seen; there was no effusion of blood between the membranes and the cord, or into the substance of the cord itself, which was normal in colour,



appearance, and consistence. The other organs were not examined.

*Case 3.—Fall from a Window—Immediate Paralysis of Chest, Abdomen, and Lower Extremities—Comminuted Fracture of Left Leg—Death from Syncope on the Eighth Day.*

(Under the care of Mr. HARRIS.)

Richard W., aged sixty-three, was admitted into the Exeter Hospital on November 5, 1883. He was engaged on the day of the accident in taking out some glass from a window about twelve feet from the ground, when the sill on which he was sitting suddenly gave way and precipitated him to the garden below. There was no loss of consciousness, and on his admission it was found that he had sustained a comminuted fracture of the left tibia at its lower third. There was complete paralysis both of motion and sensation of the entire body from the level of the second rib downwards. There was very slight movement in breathing of the top of the chest, and the chest-walls were drawn in during inspiration. The breathing was almost entirely diaphragmatic, and was attended by a well-marked downward jerk of the diaphragm, which seemed to shake the bed upon which he was lying. The heart-sounds were normal, and the pulse small but regular. There was retention of urine, but no erection of the penis. There were no external marks of violence about the spine, but he complained of soreness between the shoulders, and a few days before his death a large bruise made its appearance over the lumbar spine. He was suffering from chronic bronchitis. At no time was there any return of motion or sensation in the parts paralysed, though at times he said he felt "pins and needles" in his legs. The catheter was used regularly, and no sensation was felt on passing it; the urine remained quite clear up to the time of his death. The intestines became much distended with flatus, but this was speedily relieved by a turpentine enema. The face remained quite clear, nor were there any signs of advancing pulmonary congestion. He died suddenly on the morning of November 12, having survived exactly one week from the date of the accident. Unfortunately, there was no post-mortem examination; but as the symptoms of the case are in most respects similar to the preceding case, it seems probable that they depended upon hæmorrhage into the spinal canal. It is interesting to note that in this case the immediate cause of death was syncope, while in the second case death resulted from asphyxia.

**THE COMMUNICATION OF CANCER.**—Dr. Gaillard Thomas says, in answer to a question by one of his clinical class—"There is, undoubtedly, great danger of propagating cancer by sexual intercourse, and repeated instances of cancer of the penis contracted in this way are on record. The slightest abrasion of the penis may be sufficient for the absorption of virus from the malignant growth, and the husbands of women suffering from cancer of the uterus should, therefore, always be warned against intercourse with their wives. This, as you will see, is a matter of very considerable importance, and I am glad that the point has been suggested."—*New York Med. Record*, November 10.

**IODOFORM IN PEMPHIGUS PRURIGINOSUS.**—Dr. Garland, after relating a case (*Boston Med. Jour.*, August 23) in which iodoform acted very beneficially, observes:—"This was a case of pemphigus pruriginosus, which Hebra declares incurable and always fatal. The treatment consisted of rest (in the horizontal position), small doses of quinine, good diet, cleanliness, carbolic wash, and iodoform-powder. The rapid improvement in the appearance of the ulcers after the application of the iodoform was noticeable by all who watched the case. Moreover, it was noticed that *new blisters* ceased to form after the application of the powder, and, as we know that iodoform is readily absorbed by raw surfaces, the question arises as to how far the constitutional effect of the absorbed iodoform contributed to this happy result. About a year after treating the above case, I noticed a similar one reported by an English physician, which was treated with Fowler's solution, and the reporter of the case claimed that this solution is an infallible remedy for pemphigus. The success of my own case would indicate that we also have a very reliable remedy in iodoform." The patient in this case was seventy-eight years of age, and 280 ulcers and blisters appeared on his limbs and trunk.

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# Medical Times and Gazette.

SATURDAY, DECEMBER 15, 1883.

## INTEMPERATE TEMPERANCE.

THE leading journal has acquired a reputation for steering clear of emotional currents, but no utterance on its part will commend itself more to sensible men than its recent remarks on alcohol: "Nothing more absurd can be imagined than the demand for a voluntary abdication by mankind of the right to apply alcohol as an article of food. If its uses were now first discovered, the discoverer would doubtless be hailed as among the greatest of human benefactors." To the adherents of the temperance cause these observations may appear paradoxical, if not worse; but they will commend themselves to all men who love sweet reasonableness, in which category we hope that we may, without boastfulness, include ourselves. We have no intention, be it stated at once, to depreciate the efforts that have been made to lessen the evils of excess in alcohol, and to check its cause: they have our cordial sympathy, and deserve our ready and earnest aid; but for these very reasons we are the more anxious that the dual character of the work should not be overlooked, and that its progress should not be smothered by misdirected energy, or delayed by checks which are the natural outcome of intemperate enthusiasm. Medical men, who see the effects of drink more frequently and more clearly than any other members of the community, are not likely to ignore its potential harmfulness; and they have been the first and the most consistent in condemning especially that pernicious variety of drinking which stops far short of actual drunkenness. They know that the causes of alcoholism and the effects of alcoholism are not one and the same; and that the remedy appropriate for the first may miss, or even intensify, the other. They recognise that total abstinence may be the one hope of salvation for the victim of confirmed alcoholism; but they do not thence infer that complete abstention from all forms of alcohol is



the only means whereby any member of the human race can escape the future of the drunkard and the sot, or deem that the evils entailed by the abuse of alcoholic drinks negative the possibility of their moderate and legitimate employment. And, strong in the wider knowledge which they are seldom given credit for by their opponents on this question, they do not hesitate, in appropriate cases, to prescribe small quantities of sound alcoholic stimulants, just as they prescribe other poisons, in therapeutic and dietetic doses. But the man who proclaims himself a total abstainer—meaning thereby that he eschews all forms of alcoholic beverage—because he has discovered that he is better, or at least can do as well, without them, must needs have all his fellow-creatures clad in the same livery, and would banish from the face of the earth every variety of a substance which is often useful, because, like everything else, it is always harmful in excess. Of those who range themselves under this title, the most ardent are the men least able to adopt its tenets with advantage either to themselves or to others. We make this statement advisedly, as the result of dispassionate observation, and with due reservation of those apparent exceptions which test every rule. A weak and imperfectly balanced mind most readily seizes, most closely clings to, and most ardently advocates the dogma which affords it a ready holding-ground and an apparent refuge from its own dimly realised vacillation. No fanatic is master of a calm and evenly portioned intellect: his fanaticism is but the expression of a mind which has become, so to say, lop-sided, because it could not trust itself not to roll. But a mind thus constituted is an index of an unstable nervous system; and an unstable nervous organisation (often correlated in the educated man of the present day with imperfect physical development) is precisely the combination of conditions which, while acutely sensitive to the baleful effects of excessive stimulation of any kind, is markedly benefited by a timely and judicious employment of small quantities of alcohol properly administered. The day of six- and four-bottle men has passed, never to return. The average English gentleman of the present generation is physically incapable of drinking what his great grandfather was accustomed to take daily with impunity. But this modified condition of the nervous system, the outcome of a more rapid rate of living, not seldom shows, in its lack of digestive and assimilative vigour, an indication for moderate stimulation.

The original experiments and deductions, which are so frequently quoted by the total abstainer on the platform, have been again gone through of recent years, with a care and accuracy previously unattainable, and we now *know* that a small quantity of alcohol, taken with food, or towards the end of a meal, materially aids digestion even in the healthy animal. This truth is at last brought home to the ardent and broken-down advocate of teetotalism, and, “under medical direction,” he at length consents to take the stimulant in order to regain something of that health which his own perversity has jeopardised. The most conspicuous examples of this kind are naturally found amongst the younger clergy; the character of their vocation, their sympathy with all that tends to elevate and improve those with whom they are brought in contact, their desire to set an example for good, the difficulty and the nature of their work, all contribute to their taking on themselves a burden greater than they can bear. In a group of five contiguous parishes, taken at random, three of the incumbents—all in more or less delicate health—became “total abstainers”: at the end of three months one had become inaudible to the major portion of his congregation, and recovered his usual health only after a long course of tonic treatment, with port wine, and a six

weeks' holiday; a little later the second was obliged to close his church for three Sundays, and is now able to take only occasional duty; the third is still at his post, but suffers from attacks of syncope. Out of eight candidates for the curacy of a moderately large church, five were total abstainers: each of the five, in turn, declined the post on learning the size of the church; and one, in addition, professed himself unequal to evening or night work. Examples such as these might be multiplied almost indefinitely, and, while they bear out the views which we have already expressed, they show how strangely indifferent the most conscientious advocate of a good cause may be to the flaws in his own line of argument and practice.

No one denies that a rigid adhesion to the pledge of total abstinence may be, in certain cases, the one available safeguard for the tempted; no one denies that it may be, in certain cases, a wise and noble thing for a man—who, for himself, needs no such aid to temperance—to take such a pledge and to keep it by way of example and encouragement to his weaker and more vacillating brother. But to strive to bring all wills down to this level of bolts and bars is to degrade the power and value of all moral training. Is it, in effect, taking higher ground to say, “A. and B. cannot trust themselves to keep their simple word; we will make matters easier for them by each of us subscribing an oath similar to the one they take, and binding ourselves by the same penalties,” or to be able to point to men of intelligence and education, and to say, “Here are men who labour hard at work of a kind which more than any other, possibly, may be thought likely to induce a craving for stimulants, and who know this; who are, however, not so lacking in self-reliance and in moral strength as to be compelled to say, ‘I will not touch nor taste this thing, lest I come to take too much of it,’ but who are able to take at the proper time, and in the proper way, that quantity which is useful, and to stop short of what would be injurious”? Moreover, there is the counter-argument of the beer or spirit drinker, who says, with what seems to him triumphant logic, “Here are gentlemen who take the pledge to give us an example: they have comfortable homes, good wives, good food, good clothes; but they fall ill, and have to take port wine and champagne. Why should I take the pledge? I don't want to be laid up; and, if I were, I shouldn't get port or champagne.”

And the matter is seldom put fairly before the lower classes, who are most frequently appealed to, in its full bearings. Too often it seems to be implied that the mere giving up of beer and spirits will at once and of itself secure them good food, warm clothing, a contented mind, and healthy, cheerful homes. What was the effect produced by the speech of a well-known temperance orator, who, at a recent meeting, after stating how crowded with engagements was his working-day, said that when he felt exhausted in the forenoon, and in need of a stimulant, he took, “not a glass of wine, but a good slice of roast beef”? That must have sounded but cruel irony to the ill-fed, scantily-clothed mother “who kept six children on four-and-sixpence a week.” The working classes have found out for themselves that a certain amount of alcohol makes scanty food go further. If the spirits which are proffered them at a temptingly cheap rate are raw and rich in fusel oil, and the beer unsound and poisonous, it is no fault of theirs. And if the working man is to be taught to give up his alcohol or to lessen his consumption of it permanently, he must be taught and aided to escape the foul air, and coarse ill-dressed food, and depressing surroundings, and dull thoughts which conspire to that craving for stimulants which is, under the circumstances, inevitable. Teach him temperance, not in drink alone—which is



useless, or nearly so,—but in all things; let him realise his capability for, and the legitimacy of, bodily enjoyment of all kinds in moderation. Teach him the true value of food (and his wife how best to cook it), of air, of sunshine, of water, of recreation, and of sleep; and when each of these things occupies its due share of his attention, the temptations to alcoholism—which, after all, are at the root of the evil that none of us dispute—will be within measurable distance of annihilation. Total abstinence is a cheap cry and a catching one. But the landlord who honestly looks to the sanitary condition of his labourers' dwellings; the employer who establishes schools for cookery, reading-rooms and baths for the use of his workpeople; the public body that opens parks and museums; the brewer who makes only sound beer; and the schoolmaster or mistress who teaches his or her pupils *how* to learn rather than how much they can be made to repeat—must be looked to as the real factors of a permanent and national sobriety.

#### RECENT ADVANCES IN NEURO-PATHOLOGY.

It is not many years since a definite and constant lesion was recognised in the outer part of the posterior columns of the spinal cord in cases of locomotor ataxy; and, in consequence of the general acceptance of this view as to its pathology, the name of *tabes dorsalis* has been gradually superseding the other. Recent investigations, however, have tended to raise doubt as to whether a central lesion is the one and only cause of the symptoms in this disorder. Prof. Pierret was the first to sound a note of warning when he demonstrated, at the International Medical Congress in 1881, peripheral in addition to central lesions in a case of locomotor ataxy; and in a recent number of a contemporary Mr. Page has asked point-blank whether *tabes dorsalis* may not have a peripheral origin. The patient who seems to have been, so to speak, the starting-point of this latter paper, was an old soldier, who came under observation suffering from locomotor ataxy and arthropathy, and who had suffered previously on separate occasions from perforating ulcer of each foot; and Mr. Page puts forward the hypothesis that the corn which preceded the perforating ulcer set up a peripheral neuritis which ultimately led to ordinary locomotor ataxy. The fact, however, that each great toe was affected with a perforating ulcer is much more compatible with the theory of an already existing central affection than with any other; but even if the perforating ulcer had been unilateral, it would not have formed a strong argument in support of Mr. Page's plea. Gastric crises often precede the more common symptoms of locomotor ataxy by a great many years, but no one would seriously argue that the stomach formed the starting-point of a neuritis which ultimately led to the development of locomotor ataxy. An affirmative answer to Mr. Page's question can only be supplied by pathology. No amount of clinical study can afford convincing proof on this point. Two things are necessary for the satisfactory solution of the problem: it should be shown, first, that it is possible for peripheral neuritis to occur spontaneously; and next, that when it does so originate it is capable of giving rise to the symptoms of locomotor ataxy.

A contribution towards the elucidation of the former requirement has recently been furnished by MM. Pitres and Vaillard, who, in a series of valuable papers in the *Archives de Neurologie*, have put forward their views on the nature of peripheral neuritis not due to traumatic lesion. The subject is, comparatively speaking, a new one. Several causes have contributed to this—one of these being the general belief that a neuritis could not originate independently of any primary change in the spinal cord, or ganglia on the posterior

roots; another being the imperfect methods which, up to a very few years ago, were employed in examining the nerves. Their papers are based on the careful study of nine cases in which peripheral neuritis existed, not originating in an injury. Three of these were cases of cerebral hæmorrhage, two were cases of locomotor ataxy, two of Pott's disease, one of double herpes zoster, and one of leucocythæmia. In none of the cases was any alteration in the nerves perceptible to the naked eye. They were of normal colour, and were neither softened, indurated, reddened, nor œdematous. The microscope alone enabled the authors to detect any alterations. The changes closely resemble those found in the peripheral portion of a divided nerve. In both instances there is at first swelling of the nucleus of the nerve-fibres, and segmentation of the myelin, advancing to complete destruction of the cylinder-axis and of the path of Schwann; in both instances too the destroyed fibres may be regenerated, or at any rate may be replaced by newly formed ones. But though the processes present these analogies, it must not thereby be assumed that they are identical. The form of neuritis under consideration has not the regular, uniform evolution observed in "Wallerian" degeneration; sometimes it runs a very rapid course, at others a very slow one. There is also some evidence that spontaneous neuritis may be propagated towards the central parts, which does not occur after division of the nerve. The changes affect exclusively, at the onset at any rate, the nerve-fibres themselves, the connective tissue remaining normal during a comparatively long period, and only becoming thickened when the nerve-tubes are already deeply involved. Even in cases where the neuritis appeared to be associated with primary changes in the nerve-centres, the authors did not find the changes continuous between the spinal cord and the affected nerves; the nerve-trunks in the intervening portions often appeared to be quite healthy. All peripheral nerve inflammations do not give rise to appreciable nutritive or sensory disturbances; these probably only occur when the proportion of affected fibres is somewhat considerable. They vary in their nature according to the function of the affected nerve and the degree of the change. Amongst the affections resulting from peripheral neuritis, described in this paper, are eschars of rapid formation, ulcers with no tendency to heal, vesicular herpetic eruptions or pemphigoid bullæ, perforating disease of the foot, chronic œdema, arthropathy, and malnutrition of the nails. Local anæsthesia was not constantly present. From a pathological point of view the authors make five distinct types—1. Fragmentation of the myelin into masses; 2. Fragmentation of the myelin into balls; 3. Fragmentation of the myelin into fine granulations; 4. Atrophy of the tubes, with amber-coloured granulations in the interior of the path of Schwann; 5. Complete atrophy of the nerve-tubes.

The second requirement—namely, that it should be shown that the symptoms of locomotor ataxy can be produced by a peripheral lesion—has quite recently been fulfilled by M. Dejerine, who, in a short communication to the *Gazette Médicale de Paris* (No. 44), gives an account of two cases which during life presented certain characteristic symptoms of locomotor ataxy—*e.g.*, marked incoördination, anæsthesia, and analgesia of the legs, and loss of the patellar tendon reflex,—and in which, after death, the spinal cord was found to be perfectly normal, whilst the peripheral nerves presented a high degree of neuritis. No indication is given as to the duration of the disease in either of these cases, and it seems fair to suppose that, had the disease lasted longer, the spinal cord might perhaps have been found to be involved. This, however, is not M. Dejerine's opinion, as he proposes to group his cases apart from the ordinary disease, calling them peripheral *tabes*, in opposi-



tion to the spinal disease. If, however, a differential diagnosis can only be made by the aid of the microscope after elaborate chemical processes have been followed out, it is a distinction that is hardly worth making, and it will be more rational to admit that locomotor ataxy may be due to a peripheral lesion.

### THE HOMES OF THE POOR IN ENGLAND AND ELSEWHERE.

SELDOM has a meeting convened for the discussion of a question of national importance been more thoroughly representative of all classes of the community and of all parties, political and religious, than that which on Tuesday assembled at the Mansion House to consider the state of the dwellings of the London poor. Public feeling has now been so thoroughly aroused to the moral, social, and sanitary dangers of such a state of things in our midst, that it is to be hoped it will not subside when the novelty of the excitement has worn off, and questions of party politics and the contests of a general election again come to the front. But why society should just now have awoke from the fool's paradise in which it has been living, when "the bitter cry of the outcast poor" has been ringing in its ears for years, we are at a loss to explain. Much credit is doubtless due to those whose graphic descriptions have fanned the smouldering interest into a flame, but the facts themselves in their naked horror have long been only too familiar to the clergy, parish surgeons, and others whose work lies among the very poor, and only apathy or something worse has hitherto kept them from the public gaze. One great result, we venture to hope, of the Mansion House Conference will be to prevent the question becoming a watchword of political parties or a lever for setting class against class. What the causes may be, and consequently what the remedies, we shall attempt to point out, but the first fact to be insisted upon is that the evil is not confined to London or to English cities, but is found wherever men are densely crowded together. Mr. Stopford Brooke has, indeed, asserted that nothing is to be found in the great cities of other countries to equal the condition of the London poor. But he speaks from an insufficient study of the facts. We have before us a fearful picture by Dr. Du Mesnil of the dwellings of the poor in Paris, and, bad as London may be, we can conscientiously say that in its very worst quarters such scenes as he describes would be sought in vain. There, in the rear of the largest streets, may be found courts covered with hutches containing only seven or eight cubic yards, built of rotten planks and covered with more rotten felt, standing on the bare soil below the level of the sodden pathway, reeking with solid and fluid filth and ordure, or, to avoid this, erected on mounds of refuse, where the wretched occupants keep up all night a struggle for possession with armies of rats; the landlord, a sleek bourgeois, exacting his rents, and taking back great part of the wages of his tenants and *employés* (in the rag trade) in bad spirits, served at what is at once office, counting-house, and bar. Well may Dr. Du Mesnil exclaim, "It is not mere virtue, it is heroism, if these people do not entertain a hatred of the society which tolerates such a state of things." Dr. Eklund, of Stockholm, tells us of eight or ten persons living day and night in "small kennels," the very boards rotten and saturated with filth, and naked children lying in heaps of rags stinking with urine and fæces, while drunkenness and vice prevail to an inconceivable extent. From New York, Chicago, and other great towns of America—where certainly entail and primogeniture cannot be made scapegoats for the sins of the owners of house-property or of the misery of the tenants—we hear the same tale, and the question of the

provision of better accommodation is as eagerly discussed in the pages of the *New York Sanitary Engineer* and the *Tribune* as in any of our own papers. Wherever there is over-population, wherever there is drunkenness, wherever, above all, there is greed of money (and where is there not?)—there the very poor are in the same state, whether their poverty and helplessness be the result of their own improvidence and vice, or of circumstances over which they have little or no control. Greed is the vice of those who are "making haste to be rich," rather than of men who have inherited wide estates or large fortunes; greed takes advantage of the competition consequent on the struggle for existence in an overcrowded population; greed places allurements and opportunities to drunkenness at every turn in the midst of the depressed and degraded masses; and greed, in the person of the middleman, makes himself no longer a convenience, but a necessity to employer and employed, fattening on the labour of the poor, and diverting to his own pocket all but a tithe of the earnings of the sweat of their brow. The skilled artisan, the man who can sell his services direct to the capitalist, may by sobriety and providence hold his ground; but to talk of self-help to the helpless is a cruel mockery. For them the strong arm of the law must interpose; and how this may best be done we will consider another time.

### CHRONICLE OF THE WEEK.

ON Tuesday last, at the Royal Medical and Chirurgical Society, Mr. Hutchinson raised a discussion on the treatment of senile gangrene, which, as the President remarked, was interesting as indicative of the changes which our views are undergoing in consequence of general advances in surgical knowledge. Mr. Hutchinson based his conclusions on five cases of gangrene, which were senile in their characteristics, rather than in the usual acceptation of that word, for one of his patients was only forty-eight years old, and another was suffering from frostbite gangrene. Such a nomenclature, however, is quite in accordance with precedent: the late Sir Benjamin Brodie (to whose teaching much of our present knowledge of the minute pathology of this disease is due) applied the term to a patient who was even younger than Mr. Hutchinson's youngest case. The treatment proposed is amputation above the knee; in this situation it is argued that the calcareous condition of the arteries which leads to the gangrene is less likely to be met with than below the knee, that there is less danger of secondary hæmorrhage, and that amputations in this part heal more kindly than those which are practised through the upper third of the leg.

THERE were many speakers, including some of the leading metropolitan surgeons. Under the circumstances, it was not a little surprising to find what a paucity of material was at the disposal of the meeting. Two or three, at least, of the speakers remarked that they had no personal experience at all. It can only be surmised that these cases remain as incurables in the workhouse infirmaries, and that they do not come under the observation of hospital surgeons. This is much to be regretted. Mr. Hulke was not disposed to accept the plan of treatment proposed; he thought the cases did not bear out the suggestion. He was almost sure that he had seen cases of gangrene above the ankle get well spontaneously. Mr. Rivington's experience, as far as it went, corroborated the practice. Mr. Barwell had had one successful case. Mr. Croft had no personal experience. He thought the use of antiseptics explained the success. Mr. Godlee had had a fairly successful case. He believed



that the use of antiseptics would allow us to go lower down, and still obtain success. Mr. Cripps thought the danger of amputating without antiseptics lay in the want of reparative power in the tissues, which thus failed to build up a barrier to the infective products of the wound. With antiseptics he would be inclined to try amputation lower down. Mr. Savory thought the doctrine of amputation grave and important; amputation through the thigh was for all persons a serious operation, and especially so for patients the subjects of gangrene. The discussion is elsewhere reported at length.

In another column will be found the report of an important meeting held at Sir William Jenner's house on Monday, to consider the action of the Public Prosecutor in the case of Messrs. Bower and Keates, and to make a recommendation to the Government with the view of avoiding such cases in the future. In another recent prosecution of a medical practitioner the Public Prosecutor did act, we are informed, on competent medical advice, but in the case of Messrs. Bower and Keates he appears to have acted on his own responsibility. There cannot be two opinions, whether within the profession or outside it, as to the inadvisability of the law being put in action against a medical practitioner, on such a delicate and difficult charge as that of *mala praxis*, without the advice of an unbiassed medical authority, and the question for the Government to decide is whether such advice shall be given formally or informally. If a responsible medical adviser to the Public Prosecutor is to be appointed, then the same privilege may be logically claimed by other professions, and even by anyone who is liable to bungle in his business and to be prosecuted for the results of such bungling. This would be to reduce the office of Public Prosecutor to an absurdity, and its abolition would not be long delayed. It would on the whole be better to have an understanding that in all charges of professional misconduct against doctors the Public Prosecutor should not act without taking informally the advice of a medical man of authority on the matter.

THE discussion on outdoor medical relief at the Poor-Law Guardians' Conference on Wednesday resulted in a resolution to the effect that boards of guardians should be empowered to administer medical relief by way of loan at a minimum fixed rate. At present relief may be administered in this way to servants, the repayment of the loan being made from the wages in the masters' hands; but in other cases it is not allowed by the central authority. The resolution of the guardians' representatives will no doubt have great weight with the Local Government Board; but the views of the medical officers on the subject have yet to be heard. It would be advantageous, of course, for all parties, and not least so for the patients themselves, if all who are not actually destitute could be made to give some equivalent for medical attendance, either by a regular subscription to a provident dispensary, or by payment of a lump sum on requiring advice, or by undertaking to pay such a sum in instalments after the illness. But it is obvious that any scheme for securing this might, if not very carefully worked, seriously prejudice the interests of the medical officer, by removing to the provident class patients who could well afford to pay for private attendance, and who would have done so but for the adoption of the loan system. With the gradual removal of middle-class families into the large towns, the country doctor is losing many of his best patients, and to draw many away at the other end of the social scale would, in some cases, leave him nothing but contract work. The country doctor's life is hard enough and his remuneration too modest as it is,

and any scheme which threatens to place him in a worse position must be jealously scrutinised.

On Thursday week, Dr. G. V. Poore delivered a lecture at the Parkes Museum on Coffee and Tea, the chair being occupied by Sir Henry Thompson. Coffee the lecturer declared to be the better stimulant; but tea—the tobacco of women—cloyed the palate less, and was easier of digestion, if made so as to exclude the astringent matter of the leaf. Coffee was a stimulant which would prove a good substitute for spirits, and its use should be encouraged by those who were trying to reclaim the drunkard. Since 1854 the consumption of tea in the United Kingdom had increased from 2 lbs. per head to an average of 4 lbs. 9 ozs.; but the consumption of coffee had in the same period decreased from an average of 1 lb. 6 ozs. to 15 ozs. each person—a result due to a mistaken policy on the part of the Government in allowing coffee to be adulterated with such rank weeds as chicory and dandelion. We cannot help thinking there is some other explanation than this for the victory in England of tea over coffee in the struggle for existence. The curious geographical distribution of tea-drinking and coffee-drinking has never been explained. Why do Englishmen, Russians, Australians, and Chinese all drink tea, and Frenchmen, Germans, and Turks all drink coffee? It is a phenomenon that has yet to be accounted for.

MISS FRANCES POWER COBBE evidently appreciates the advantage of setting a "fresh mind" to a subject as much as her victim, the President of the Royal Society (see his recent remarks on Cholera), but she does not equally appreciate the necessity of duly remunerating its work. She selects a literary stripling whose mind is a *tabula rasa* as regards the subject she wishes him to deal with; sets him to "coach" himself in anatomy, medicine, surgery, etc.; sends him forth to attack vivisection from a scientific standpoint, and to do battle with such opponents as Huxley and Owen; and then, after he has written with "transcendent ability" 151 columns of "brilliant illustration and clenching argument," she suddenly objects to go on paying for them. There must have been some reason, which did not come out at the trial, for this sudden discovery of the worthlessness of her champion's columns, at any rate from a pecuniary point of view. Perhaps they were not so fatal to "that old impostor, Owen" as at one time seemed probable to her; and as Miss Cobbe and other anti-vivisectionists seem much more intent on inflicting suffering on their fellows than in saving animals from it, their failure to make the veteran palæontologist wince may have opened their eyes to the valuelessness of their instruments of torture. Passion is apt to grow cool and thrifty when its payments bring no adequate return. Of course Miss Cobbe will now claim that the 151 guineas she has been obliged to pay for her pleasure have succeeded in driving Prof. Owen from the honourable office he has held at the British Museum for over a quarter of a century. Let her persevere. There is still the President of the Royal Society to be brought low.

MR. BOWMAN is to be a baronet as well as Mr. Lister, and the expressions of disappointment which we have heard during the past week, at his being presumably passed over again, are justified as well as allayed. The work by which Mr. Bowman gained his reputation was done so long ago that the present generation, but for an occasional reminder in the physiological text-books, are apt to forget that he was a world-famed physiologist before he became an eye-surgeon. It is more than forty years since he was awarded a Royal Medal by the Royal Society; and men who are now



thinking of retiring from practice, when they were students read no physiology but Todd and Bowman's. Forty years ago it was quite probable that Mr. Bowman would become the leading London surgeon, and his subsequent retreat to a specialty, though it was of immense service to that specialty, no doubt delayed both the development of scientific surgery in this country and the State recognition of his own merits. If Mr. Bowman had remained a general surgeon he would probably have had his baronetcy ten years ago; and if he had been a German he would have obtained his "von" and been a *Geheimrath* at thirty-five. Talking of Germans, it is a curious coincidence that the two new baronets are, so far as we know, the only two living English medical practitioners whose names our Teutonic cousins have thought worth embodying in their vocabulary. "Die Bowman'sche Discs," and "die Lister'sche Behandlung" we know, but we have not yet heard of "die Spencer Wells'sche Behandlung," or seen myxœdema called "die Ord'sche Krankheit," and we have lost the first describer of the "Corrigan'scher Puls."

At the London University M.B. Honours Examination, Mr. S. H. C. Martin, of University College, has taken the Scholarship and Gold Medal in Medicine, and Mr. R. F. Fox, of the London Hospital, the Gold Medal; the Midwifery Scholarship and Gold Medal have fallen to Mr. S. Rabbeth, of King's College, and the Gold Medal to Mr. E. W. Roughton, of St. Bartholomew's. In Forensic Medicine the Scholarship and Gold Medal have been awarded to Mr. J. Collier, and the Gold Medal to Mr. J. M. Beverley, both of the Manchester School. From the double success of this school it looks as if forensic medicine were better taught there than at the London hospitals. London men have always been apt to look on the examination in this branch as of the nature of a puzzle competition. They come to it for the most part well up in the book-work, but badly prepared for the testing. If, by a happy inspiration, one happens to find out what poison lies hidden in the coffee or stout put before him, he gets the scholarship; if the poison evades his researches, however excellent his paper, he gets a third class. A more practical knowledge of toxicological inquiry would, no doubt, have removed this uncertainty long ago, but hitherto it has been difficult for the student to obtain it, and, what is more, it is doubtful whether he ought to be encouraged to obtain it. If he gives only two years to preparing for the examination, he has quite enough to do to learn his medicine, pathology, and obstetric medicine. The Senate would do wisely, we think, to substitute an honours examination in pathology for that in forensic medicine, and to give their honours for the latter subject in connexion with the examination in state medicine. The M.D. degree might very well be given, like the M.A. degree, in different branches, one of which might include medical jurisprudence and hygiene. These subjects are now falling so exclusively into the hands of specialists, and requires such a special training, that it seems very undesirable to encourage the student to give up to them time which ought to be spent on clinical medicine and pathology.

DR. DE WATTEVILLE's letter on the "Uses of Hospital Patients" has not fallen from the press so stillborn as we had hoped. The Vicar of Old Ford has called the Lord Mayor's attention to it, and the Lord Mayor has referred the whole subject to the Council of the Hospital Sunday Fund, which will take it into their consideration on Monday next. Dr. De Watteville meanwhile has written another letter to the *Standard*, in which he entirely changes his position. All he claims now is that medical men shall be allowed to be the only competent judges as to whether

a given experiment is one which conscience, science, and humanity justify. The general public, who are, after all, reasonable beings, will doubtless be willing to admit this claim, so long as the profession shows that its conscience is as sensitive and its humanity as high as theirs. The profession, by generations of humane and unselfish work, has won the confidence of the public; that confidence is the resultant of a million of individual experiences of the humanity of doctors all over the country, and it is a priceless possession not to be trifled with. The country practitioners, whom Dr. Clifford Allbutt eulogised of late, when they turn out into the snow and darkness without prospect of pay, are earning immunity from public criticism for hospital physicians and surgeons. Each class earns for his profession reputation; and as the country or private practitioner shares in and is justly proud of the scientific reputation won in public work, so the hospital physician should prize the moral reputation won by private work. One form of reputation is the complement of the other, and it is the hospital physician's privilege to have the means in his power of adding to both.

THE contest for the Assessorship of St. Andrews University is being waged with vigour, but we have little doubt as to the issue. The medical graduates will have to do all they know, and more, if they are to carry Dr. Richardson against such a powerful opponent as Sir Richard Cross. The characters of the candidates are curiously contrasted. Dr. Richardson is a man of enthusiasms; Sir Richard Cross is the embodiment of cold common-sense. Dr. Richardson has almost too much imagination even for a man of science; Sir Richard Cross too little even for a statesman. Dr. Richardson has culture and eloquence, which no one has ever accused Sir Richard Cross of possessing to any remarkable extent; but the ex-Home-Secretary has precision and judgment in sufficient abundance to supply Dr. Richardson's deficiencies in those qualities. Throw all their gifts into hotchpot, and the mixture would rival Prof. Huxley both in science and statesmanship. If we had a vote, we should cast it for Dr. Richardson, who, besides his long and faithful services, has the great claim of not basing his candidature on politics.

THE death-rate of London for last week was 21.5, having steadily declined during the past month from 22.2. The deaths, in number 1628, included 207 from zymotic disease, which was 47 below the corrected ten years' average. Of these, 44 were from measles, 53 from scarlet fever, 23 from diphtheria, 43 from whooping-cough, 26 from enteric fever, and only 2 from small-pox. From the fever-hospital returns, however, it appears that while fever cases are still very heavy, there has been during the last fortnight a sudden influx of small-pox cases. In the five asylums for fever cases there had been 150 fresh cases of fever admitted during the fortnight, and 657 cases are still under treatment, as against 628 a fortnight ago. Of these, 465 are cases of scarlet fever, 4 are cases of typhus, and 187 are cases of enteric fever. In the small-pox asylums a fortnight ago there were 49 cases altogether, but in the last fortnight 37 cases had been admitted, 6 had died, and 9 had been discharged, leaving 71 under treatment—an increase of 22 in the fortnight. The increase of infectious cases was a subject of comment at the last meeting of the Metropolitan Asylums Board, and a scheme was discussed for providing a convalescent-fever asylum outside London, as recommended by the Royal Commission on Infectious Hospitals in the Metropolis, with the view of lessening the necessity for acute-fever asylums within the immediate area of the metropolis. The General Purposes Committee recommend the purchase of



an estate at Winchmore Hill for the purpose. The sooner this convalescent hospital is built, the better will it be for the metropolis. As it is, scarlet-fever patients are sent out from one at least of the metropolitan fever hospitals a great deal too soon. It would be an economy in the long run to keep every scarlet-fever patient at least eight weeks in hospital.

THE *Gazette Hebdomadaire* for the current week has a clinical note on a case of Vesicular Mole. The *Gazette des Hopitaux* contains a communication from M. Richer on the Neuro-Muscular Phenomena of Hypnotism, a note by Dr. Sorbels on Epithelioma of the Clitoris, an article on two cases of Atrophic Cirrhosis of the Liver, and one on Monoplegia of the Arm and Leg of a hysterical nature. The *Gazette Médicale de Paris* gives a paper by MM. Malassez and Vignal on Zooglœic Tuberculosis, and one entitled "Hydatid Cysts of the Liver opening into the Stomach, with especial reference to prognosis," by Dr. Llandier.

THE *Centralblatt für Klinische Medizin* contains abstracts of papers—by Cornil and Berlioz, on Jequirity Poisoning; by Petrone, on some Experimental Observations in Therapeutics; by Zimmerlin, on Hereditary Progressive Muscular Atrophy; by Seitz, on a case of Sudden Death from Laryngeal Paralysis. An original paper by Dr. Victor Babes on the Structure of Sarcoma appears in the *Centralblatt für die Medicinischen Wissenschaften*, which also contains abstracts of papers—by Eckhard, on Excitation of the Heart after Injury to the Vagus; by Pouchet, on a New Form of Hydrocarbon in Phthisical Lung-Tissue; by Nieden, on a case of Hemianopsia after Injury to the Cerebral Cortex; by Jendrassik, on Tendon-Reflex. In the *Centralblatt für Chirurgie* appear the following abstracts, amongst others—Vivien, on Traumatic Cephalhydrocele; Hack, on Reflex Affections in Nasal Diseases and their Operative Treatment; Mensing and Fiorani, respectively, on Resection of the Knee; Courvoisier, of Basle, contributes an account of a case of Gastro-Enterostomy. The *Centralblatt für Gynäkologie* publishes original communications from Dr. Bröse, of Berlin, on Continuous Suture in Ruptured Perineum; and from Dr. Opitz, of Chemnitz, on Disinfection of the Genital Passages; an abstract of a paper by Ungar (Bonn) on Atelectasis of Lungs, and a report of a late meeting of the Obstetrical Society of Leipzig, are also published. In the *Berliner Klinische Wochenschrift*, Dr. Kredel relates a case of Pseudo-Leukæmia, with Perforation of Spleen and Stomach; Dr. Falk's address on Inoculated Tubercle is published *in extenso*, a debate upon the same finding a place among the reports of societies; and the first part of an address by Dr. Körte, on the Treatment of Artificial Anus, is also communicated. Dr. Heinrich Auspitz contributes to the *Wiener Medizinische Wochenschrift* some notes on the Treatment of Eczema; papers—by Dr. Weiss on the Prodromata of Paralytic Mental Disturbance, and by Dr. Biach on Idiopathic Hypertrophy of the Heart—are also of interest.

#### THE BRADSHAWE LECTURE.

THE second annual Bradshawe Lecture of the Royal College of Surgeons was delivered in the theatre of the College, on the 6th inst., by Prof. John Marshall, F.R.S., the President. There was a crowded audience, among whom were Sir James Paget, F.R.S., Sir Spencer Wells, Sir Risdon Bennett, Sir Henry Thompson, Sir W. Mac Cormac, Mr. Le Gros Clark, F.R.S., Mr. Hutchinson, F.R.S., Mr. Wood, F.R.S., Mr. Hulke, F.R.S., Mr. Timothy Holmes, Mr. C. Heath, and Mr. Lund, of Manchester. Mr. Marshall said that while Sir James Paget had devoted the first of these lectures to the con-

sideration of some "new diseases," he had chosen a "new operation" for the subject of the second, or present, lecture—namely, "Nerve-Stretching," especially considered in relation to "the relief or cure of pain." By nerve-stretching was understood a palpable and appreciable extension of a nerve—not a mere lifting of a nerve up from its bed. He explained the result of such stretching on the physical properties of nerves, on their anatomical structure, and on their functions. Nerves were decidedly, though moderately, extensible; they retracted after removal of a strain; and they were remarkably strong. The small nerves of the face could bear weights of from six pounds to twelve pounds, while the sciatic nerve would withstand a strain varying from eighty pounds to two hundred and eighty pounds. The effects of stretching on the minute structure of a nerve were fully explained by the lecturer, and illustrated by diagrams prepared for the occasion by M. Victor Horsley. Passing from the changes produced by nerve-stretching on the bloodvessels and the lymphatics of the nerve, he described the subsequent evidences of degeneration in a stretched living nerve, and its restoration and recovery. In regard to the functions of nerves, he explained how these were gradually injured by increasing degrees of strain, sensibility suffering before motor power. The irritability of conducting power was first excited and then depressed. In the second division of the lecture the therapeutical effects of nerve-stretching were dealt with, and the great success of the practice in the cure of neuralgia was shown. In the third division of his subject Mr. Marshall explained the possible modes of action of stretching diseased nerves and the nerve-centres, especially in relation to the cure of the pains of neuralgia and of locomotor ataxy. The former he assumed to be very generally peripheral or in the nerves themselves, and suggested that they might, possibly, frequently be referred to sensory nerves supplying the nerve-sheath itself—i.e., to *nervi nervorum*,—which, when the sheath is forcibly tightened, would be paralysed directly from the stretching, and so would no longer suffer pain. In other cases, however, the neuralgic pains might depend upon a disordered state of the component fibres of the nerve itself, and these would be alleviated by the stretching of those fibres, by the disruption of their medullary sheath, and the over-elongation or possible rupture of the axis-cylinders. Lastly, in other cases the nerve-centres themselves might be concerned. In locomotor ataxy it was not the nerves outside the spinal column, but the intra-spinal nerve-roots and the white conducting columns in the cord itself, which were chiefly affected; and here, as well as in central neuralgias, if they existed, the effect of nerve-stretching, which did not reach mechanically the intra-spinal nerve-roots or the spinal cord, must be considered to be due to subsequent nutritive changes dependent upon excitation of the vaso-motor nerves, and perhaps of trophic nerves; but in regard to such explanations the lecturer did not assume to dogmatise. In the concluding division of the lecture the different modes of nerve-stretching were explained.

#### RECORDS OF FAMILY FACULTIES.

THE information supplied by a medical contemporary, in reference to Mr. Francis Galton's scheme for obtaining data for a comprehensive study of hereditary tendencies, was incorrect. The prize competition will not be limited to medical men, and Mr. Galton is not prepared to furnish schedules to all applicants. The following letter of explanation has been addressed by Mr. Galton to an American contemporary:—"The information wanted applies to so many different individuals in the same family group, and



differs so much in minuteness, according to the degree of kinship, and it has to be arranged in so special a manner, that a copious explanatory description and numerous tables are requisite. There is no real complexity; nevertheless, I feel assured that without considerable guidance endless mistakes will arise. Correspondents will send pages of useless matter, and, on the other hand, they will be silent about simple facts, the absence of which will seriously diminish the value of otherwise copious returns. I therefore found it necessary to prepare a book, containing a full account and explanation of what was wanted in order to exhibit the various hereditary tendencies that converge upon any given person, and containing at the same time all the necessary schedules. This I have done; it is in the press, and will be published about Christmas by Messrs. Macmillan, and will be procurable in America. As regards the prize scheme, I found it inadvisable to restrict it to medical men, and have thrown it open to 'British subjects resident in the United Kingdom.' I could not extend it further, owing to the extreme difficulty of verifying statements of facts alleged to have occurred abroad. My self-imposed task will be hard enough as it is. The conditions of the prizes are fully explained in a fly-leaf to the English edition."

#### LAST QUARTER'S HEALTH RETURNS.

ACCORDING to the report of the English Registrar-General for the third quarter of the present year, the number of births registered during that period was 214,144, corresponding to an annual birth-rate of 31.7 per 1000. So low a birth-rate has not been recorded in the third quarter of any year since 1849. Fortunately the death-rate also exhibited a falling off, the total deaths being 113,118, and the rate 16.8 per 1000. This mortality was 2.1 below the average rate in the ten preceding corresponding quarters, and with two exceptions—1879 and 1881—was lower than in any summer quarter since civil registration commenced. This signifies that the deaths during the last quarter in England and Wales were fewer by 23,860 than they would have been had the rate of mortality equalled the average rate in the corresponding period of the forty-five preceding years. This decline in the death-rate is mainly due to a decrease in the fatality of the principal zymotic diseases, the zymotic death-rate for the quarter being only 2.65 as compared with an average rate of 3.78 per 1000 for the ten "third quarters" immediately preceding. In London during the quarter under notice the death-rate was 18.8 per 1000, or 1.9 lower than the average rate in the other twenty-seven large English towns. It is satisfactory to be able to note that the proportion of uncertified deaths showed a further decline from that which prevailed in the three preceding quarters. In Ireland during this same quarter the birth-rate was 22.1 in every 1000 of the estimated population, and the death-rate 15.3. The birth-rate is stated to be 1.9 under the five years' average, and 1.0 under the rate for the third quarter of 1882. On the other hand, the death-rate is 0.9 above the rate for the corresponding quarter of 1882, and 0.2 over the average for the third quarter of the five years 1878-82. As regards the general health of the people, very many of the 799 registrars remark in their reports on the healthy state of their respective districts during the quarter under notice, although scarlatina was very fatal in some localities (chiefly in Ulster), and whooping-cough continued prevalent in several parts of Connaught. In Scotland during the period under review the birth-rate was also below the average of the past ten years, and the death-rate, too, was slightly below the average, and nearly identical with that for England. It varied considerably in the eight principal towns, being returned as 241 for every 10,000 inhabitants in

Glasgow, 232 in Paisley, 231 in Greenock, 174 in Dundee, 170 in Leith, 168 in Edinburgh, 155 in Aberdeen, and 140 in Perth.

#### THE M'GILL MEDICAL FACULTY, MONTREAL.

ON October 1, last year, the occasion of the semi-centennial of the above school, a gentleman offered \$50,000, if the Faculty succeeded in raising an equivalent sum, as a memorial fund to their late Dean, Dr. G. W. Campbell. This, we are glad to hear, they have been able to do, and, at the opening of the current session, Dr. R. P. Howard, the Dean, was able to make the pleasing announcement that the \$100,000 had been secured. With part of it the Faculty propose to found a chair of pathology, human and comparative. The Montreal General Hospital has also received a bequest of \$50,000 from Mr. George Stephen, for a wing to commemorate the services which the late Dr. Campbell rendered to the Hospital and to the public.

#### DUBLIN LADIES' SANITARY ASSOCIATION.

ON the afternoon of Thursday, the 5th inst., the Countess Spencer attended a meeting of this most useful Association, and conferred the certificates on the pupils who had passed a successful examination in hygiene and domestic sanitation, and on the women who had obtained prizes for clean rooms. From a preliminary statement made by Miss M. O'Shaughnessy, honorary secretary, we learn that the Association aims at (1) providing means of instruction in sanitary knowledge for all classes, and (2) endeavouring to improve the physical condition of the poor by direct personal effort. Lectures are given annually in accordance with the syllabus of the Association, which is as follows:—(1) Lecture on breathing, including air and respiration; (2) lecture on digestion, including food and cooking; (3) lecture on beverages, including water, the action, uses, and abuses of tea, coffee, and alcoholic liquors; (4) lecture on light, sleep, and exercise; (5) lecture on the house and its surroundings; (6) lecture on the prevention of disease. Since the work of district-visiting commenced in 1881, 200 families have competed for prizes, 1400 visits have been paid, and thirty-five women have obtained prizes varying in value from 5s. to £1.

#### ROYAL COLLEGE OF PHYSICIANS.

THE lectures next year will be delivered at the College on each of the following Wednesdays and Fridays, at five o'clock:—Gulstonian Lectures: Dr. Clifford Allbutt (March 7, 12, 14)—"Chapters on Visceral Neuroses." Croonian Lectures: Dr. Hughlings-Jackson (March 19, 21, 26)—"Evolution and Dissolution of the Nervous System." Lumleian Lectures: Dr. James Andrew (March 28, April 2, 4)—"Ætiology of Phthisis."

#### THE LONDON FEVER HOSPITAL.

THE new pavilion which it has been found necessary to erect in connexion with this Hospital is now finished, and will shortly be open to patients. Since the formation of the Metropolitan Asylums Board the benefits of the Hospital in the Liverpool-road have to a continually increasing extent been limited to those who can contribute something towards the expenses of the charity; and as other diseases, such as measles and diphtheria, have been thought suitable for admission with a view to their efficient isolation, it has become necessary to erect additional isolation wards. These have been provided in the plans for the new pavilion, though of the twelve wardrooms and two administrative rooms, of which it will eventually



consist, only three rooms have so far been erected. These have been constructed from the designs of Mr. Keith Young, and, in the belief of the Committee, their details have been so carefully thought out that they stand unique in English hospital construction. The size of the wardrooms is such that the patients will have a floorspace of from 150 to 180 square feet, and about 2000 cubic feet each. Their walls are faced with glazed bricks in different harmoniously arranged colours, and the flooring is constructed of oak blocks on a basis of concrete. The sashes are specially made with the view of preventing the lodgment of dust, and the glazing is of stout sheet glass in two thicknesses, with an interspace of three-quarters of an inch. The greatest attention has been paid to the heating, ventilating, and "sanitary" arrangements, and the furniture has been specially designed. It is to be hoped that this sample of their care for their patients will bring in such an influx of funds that the Committee will shortly be able to complete the pavilion.

### SYPHILITIC STENOSIS OF THE ŒSOPHAGUS.

SYPHILITIC disease of the Œsophagus is rare, or, at any rate, very little attention has been given to it. In a paper in the *Berliner Klinische Wochenschrift*, No. 33, Dr. Lublinski relates two cases which occurred in his practice. The first occurred in a man twenty-nine years of age, who came under observation in November, 1880, complaining of difficulty in swallowing solid food. This symptom had existed three weeks, and was getting worse. There was no history of his having swallowed any corrosive, and there was no evidence of pressure on the Œsophagus from any tumour in the neck or mediastinum. On the uvula there was a scar, but otherwise the pharynx and the Œsophagus (so much as was visible) were healthy. The larynx was movable, and not diseased. A medium-sized sound was passed without difficulty to the level of the sixth dorsal vertebra, where it met with an insuperable obstruction. A small-sized bougie could be passed through the stricture, which communicated to the hand a feeling of roughness. There was a distinct history of syphilis, ten years before. The patient was treated with iodide of potassium, and bougies were not used. At the end of eight days there was no improvement, and the patient was suffering from palmar psoriasis. The iodide was increased to thirty grains daily. At the end of three weeks there was marked improvement: the sound could be passed, though with some difficulty; and the patient could swallow solid food, though he experienced a sensation of soreness and pressure behind the sternum when the food was too solid. In the course of some weeks, under treatment with iodide, these symptoms quite disappeared, and a sound could be passed without difficulty. The patient was apparently cured in March, 1881. The second case was a man aged fifty-four, who came under treatment for an affection of the tongue, and pain in swallowing, in November, 1881. For eight weeks he had been unable to swallow anything but liquid and soft food, and the latter gave him pain between the shoulders and behind the sternum. On the left side of the tongue, near the tip, was a hard ulcerated tumour the size of a bean; the edges of the ulcer were sinuous and considerably thickened, and around the ulcer was a red areola. The tumour was said to have been growing gradually and painlessly until fourteen days before, when it began to ulcerate. The glands about the jaw were a little swollen; the pharynx and larynx were healthy. At the level of the fifth cervical vertebra the Œsophageal sound met with an obstruction, which only permitted a fine bougie to pass. The patient showed no other signs of disease. He had been infected with syphilis twenty-two years before, for

which he had been treated, and during the subsequent years he had had occasional signs of the disease. Under treatment with iodide of potassium the tumour in the tongue diminished, lost its hardness, and healed, leaving a puckered scar. The Œsophageal stricture was treated by the daily passage of bougies, at first with little benefit; but, as the iodide was pushed up to forty-five grains daily, an improvement gradually occurred, pains diminished, and the patient was able to swallow solid food. The improvement continued, though in July, 1882, there was still some obstruction to a large sound, probably due to the contraction of the scar left by the syphilitic disease. Besides these two cases, Lublinski mentions seven other cases, three reported by West, of Birmingham (two in the *Dublin Quarterly Journal*, February and August, 1860; one in the *Lancet*, August 31, 1872), two by Follin (in his "*Traité Élémentaire de Pathologie Externe*," 1861), one by Robert, of Marseilles (in his "*Nouveau Traité des Maladies Vénériennes*," 1861), one by Clapton (in *St. Thomas's Hospital Reports*, 1871), and one by Morell Mackenzie (in the *Lancet*, May 30, 1874). Lublinski is of opinion that this affection of the Œsophagus occurs in the later stages of syphilis, years after infection, when the patient seems to be cured. Most of the cases begin as a gummatous deposit in the submucous tissue. This deposit may undergo one of two changes—either, under proper treatment, it undergoes fatty metamorphosis and is absorbed; or the cell-proliferation continues, the intercellular substance softens, and becomes gelatinous, and the mass becomes puriform, and at length ulcerates. The ulcer, in the process of healing, forms a thick scar, which has a further tendency to contract, and narrow the canal. In some cases the walls of the Œsophagus may be at last converted into firm fibrous tissue, which may occupy the whole thickness, and may extend over a greater part of the surface of the canal. When the deposit undergoes fatty metamorphosis and is absorbed, no permanent stricture is produced; but when ulceration has occurred with the formation of scars, the stricture may improve, but will never be cured. As to the rarity of this affection, Lublinski suggests that the reason may be in the protection afforded by the thick stratified squamous epithelium which covers the mucous membrane of the Œsophagus, and protects it from external influences; or that slight affections may be frequently overlooked both in the living patient and at autopsies, the symptoms being frequently so slight, and physical examination in the living almost impossible, so that the early stages of this disease may be overlooked; and the disease may really be more common than it is generally admitted to be.

### COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

THE Dublin Sanitary Association, accompanied by the Royal College of Surgeons in Ireland, are about to wait upon the Chief Secretary for Ireland, to press upon him the necessity which exists for the Government to introduce into Parliament, with as little delay as possible, a measure for the notification of infectious diseases in Ireland, based on the lines of the Bill introduced by Mr. Charles Meldon, M.P., in the session of 1882. It will be remembered that Mr. Meldon's Bill provided for compulsory notification by the head of the family or the householder, while it allowed to the medical attendant the option of himself notifying should he think fit to do so. This principle received the assent of the King and Queen's College of Physicians, the Royal College of Surgeons in Ireland, the Irish Medical Association, and the Dublin Branch of the British Association, and was generally accepted as a satisfactory solution of the difficulty attending notification by the medical attendant.



### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-eighth week of 1883, terminating November 27, was 972 (550 males and 422 females), and of these there were from typhoid fever 32, small-pox 4, measles 14, scarlatina 1, pertussis 9, diphtheria and croup 43, dysentery 1, erysipelas 6, and puerperal infection 5. There were also 54 deaths from acute and tubercular meningitis, 171 from phthisis, 37 from acute bronchitis, 73 from pneumonia, 56 from infantile athrepsia (21 of the infants having been wholly or partially suckled), and 29 violent deaths (20 males and 9 females). The deaths from epidemic diseases continue nearly stationary. Typhoid fever, although not on the increase, is more fatal than is usual at this time of the year. Diphtheria too continues to be frequent (as is usual in winter), 43 deaths having taken place instead of the 20 to 25 of the summer months, while the admissions also go on increasing yet more rapidly. The deaths from the bronchitis of infants and from pneumonia are also frequent, while those from infantile athrepsia have been very few. During the week there were 1174 births, viz., 582 males (411 legitimate and 171 illegitimate) and 592 females (417 legitimate and 175 illegitimate): 107 infants were born dead or died within twenty-four hours, viz., 65 males (39 legitimate and 26 illegitimate) and 42 females (31 legitimate and 11 illegitimate).

### ROYAL COLLEGE OF SURGEONS.

At a meeting of the Council of the Royal College of Surgeons on the 13th inst., the following Fellows were elected members of the Board of Examiners in Anatomy and Physiology, viz.:—Messrs. John Langton and Henry Power, of St. Bartholomew's Hospital; T. Pickering Pick, of St. George's Hospital; Edward Bellamy, of the Charing-cross Hospital; Henry G. Howse, of Guy's Hospital; Edmund B. Owen, of St. Mary's Hospital; Benjamin T. Lowne, of the Middlesex Hospital; Jeremiah McCarthy, of the London Hospital; and Gerald F. Yeo, of King's College Hospital.

### QUININE AND INSANITY.

At the Chicago Medical Society a paper was recently read on insanity from quinine. It was based on three cases only, but the evidence in each seems fairly conclusive. In all three the quinine was employed on account of malarial symptoms. The first man took three doses of three grains in the course of one day, and was then seized by a violent attack of frenzy, with hallucinations of hearing and dimness of vision; the second fell into a state of extreme dementia after only ten grains of quinine, and the third became destructive and violent after one dose of twenty grains. In all three cases there was the strongest possible family history of insanity. The medico-legal importance of such results was dwelt upon by Dr. Kiernan, the reader of the paper, and he remarked that when the use of quinine was pleaded as an excuse for crime it would be fair to administer further doses to test the validity of this claim—rather bringing to memory the Judge's suggestion in *Trial by Jury*.

### "CACHEXIA STRUMI PRIVA."

DR. LARDY, writing to the *Union Médicale* (December 6) from Bern, gives some account of Prof. Kocher's operations for goitre, of which he has performed a greater number (about 150) than any other surgeon. He alludes here, however, chiefly to a secondary effect which Prof. Kocher alleges sometimes follows this operation, and which he terms *cachexia strumi priva*, and which ensues in some cases when the whole thyroid is removed. Until lately this

gland was thought to be of so little consequence that it did not much matter whether it was removed in its entirety even when one lobe only was affected; but Prof. Kocher asserts that in some of these cases a considerable reflex action operates upon the brain, and the patient becomes idiotic. A memoir, in which he stated this view, was received at the last Berlin Surgical Congress with open ridicule; and Prof. Billroth (who has himself performed thyroidectomy 120 times) entirely denies the accuracy of the statement. In the meantime, such cases, Dr. Lardy maintains, are to be met with in considerable numbers, and he refers in his letter to several such. One remarkable feature is the brutalised countenance these unfortunate persons assume, while they become incapable of executing any employment that demands intelligence.

### INSANITARY PROPERTY IN LIVERPOOL.

At a meeting of the Liverpool Medical Society on the 6th inst., a paper was read by Dr. Newton on the chief causes of the high death-rate in Liverpool. A rather excited discussion ensued, owing to the contention of Dr. Newton that the habits of the "low Irish" were the chief cause of contagious disease. The arguments used were much the same as those already reported in our issue of November 24. At the close of the meeting the following resolution was carried, and directed to be sent to the City Council:—"That this institution views with great satisfaction the resolution of the Liverpool City Council to apply to the Local Government Board for permission to borrow £200,000 for the purpose of improving the insanitary dwellings of the working classes; and believes that the expenditure of the money for such a purpose will be followed by a great diminution in the disease and mortality of the city. It further desires to express the hope that advantage will be taken of every opportunity to acquire open spaces and to widen streets, so as to afford additional breathing-places to the population."

### THE EFFECTS OF TOBACCO.

In non-smokers of average constitutions the mean temperature of the twenty-four hours amounts to 36·76° C. (or about 98° Fahr.), and the pulse-rate to 72·9°. In smokers the temperature reaches 37·02° C. (98·6° Fahr.), and the pulse-rate 89·9°. Tobacco-smoking, therefore, raises the temperature 0·26° C., and the pulse-rate 16°. In persons of feeble constitutions the temperature rises 0·43° C., and pulse-rate 11·9°. Taking a mean, tobacco may be said to raise the temperature 0·29° C. (nearly 1° Fahr.), and to increase the cardiac pulsations by 12·7°. Representing the normal temperature at 1000 in non-smokers, in moderate smokers it rises to 1008; and whereas the pulse of the former may be taken at 1000, that of the smoker is 1180. It is by increasing cardiac pulsations that tobacco has such an injurious effect on some constitutions,—such, at least, is the conclusion which Dr. Troitski communicates to the *Annales d'Hygiène*.

### PROCRASTINATION AT TAUNTON.

TAUNTON, including the neighbourhood around it, has recently earned an unenviable notoriety on account of its insanitary condition—so much so, that the Local Government Board considered it necessary to despatch one of its medical officers to furnish a special report on the subject. This report we have already reviewed, and we are bound to admit that it is very generally corroborated by the annual returns for the year 1882, compiled by Dr. Henry J. Alford, the Medical Officer of Health for the locality in question. This latter authority remarks that diphtheria was epidemic in the district during the year under notice, with a



heavy mortality; in fact, in Taunton proper the deaths from the zymotic class of diseases were at the rate of 3·7 per 1000. Nor can this be wondered at when Dr. Alford records that although for the past ten years he has been urging upon the authorities the necessity of some steps being taken to ventilate the sewers of the town, nothing has as yet been done. Twice, he says, the experiences of other large towns have been sought as some guide in this direction, and twice he has very fully reported on the matter to the Sanitary Board; on both occasions, however, his suggestions were negatived, and although the subject is under the consideration of a special committee, no practical work has, up to the end of 1882, been undertaken. This is a very fair sample of the difficulties with which medical officers of health have to contend in their dealings with the powers by whom they are appointed: they are presumably responsible for the sanitary condition of their districts, yet suggestions of vital importance made by them are studiously ignored. In the present instance Dr. Alford can only predict that so long as the sewers of Taunton remain in their present condition, so long will its death-rate remain abnormally high, and the health of the town be deteriorated. Fortunately for the district, the medical officer despatched by the Local Government Board also called attention to the defective condition of the sewers; and it remains to be seen whether this additional warning will stimulate the authorities into taking action.

#### SUBACUTE AND CHRONIC PNEUMONIA.

E. WAGNER (*Deutsches Archiv für Klin. Med.*, 1883, Bd. xxxiii.) describes four distinct forms of chronic or subacute pneumonia, each of which may be subject to a variety of subdivisions. 1. Cases which originate in the delayed resorption of pneumonic infiltration. Of these, some become completely healed, and others show signs of temporary or permanent shrinking of the lung-tissue. 2. Cases of subacute lobular [or broncho-pneumonia, occurring either as a consequence of irritation by foreign particles or by chemical irritants, or, as sometimes happens, in a primary form in old persons. 3. Subacute and chronic interstitial inflammations, most of which owe their origin to some previously existing pulmonary affection or to some obstructive thoracic disease leading to prolonged congestion. An important indication of this condition is the frequent occurrence of pinkish sputa. 4. Caseous pneumonia.

#### OLEATE OF QUINIA.

THERE are many patients, and some pathological conditions, in which, though the administration of quinine is urgently indicated, the digestive tract rejects, fails to absorb, or is dangerously irritated by the alkaloid. It is in such cases that the inunction of the oleate of quinia has been recommended by some Transatlantic authorities, and observations on the subject were recently invited by the *North Carolina Medical Journal*. A case appears in the October number of that publication, which appears to show conclusively that quinine, when thus epidermically administered, is absorbed into the circulation, may be detected in the urine, and produces fully marked constitutional effects. One to two drachms of quinia alkaloid were added to two ounces of oleic acid, and the whole mass thus prepared rubbed patiently into the skin of the thighs, groins, and abdomen during every eight hours. Convalescence from a sharp attack of malarial fever was established in two weeks. Now, without taking into consideration the irksomeness and personal discomfort involved in this mode of treatment, it is obvious that a serious obstacle to its adoption will be found in the costliness of the pure quinia alkaloid which must be

used in the preparation of the oleate. A large quantity must be employed in the inunction, and the process, though interesting as a pathological experiment, will probably be but seldom imitated. Whether the oleate of quinia can be advantageously and unobjectionably used for purposes of hypodermic injection, is a point of more practical interest, and one on which we await further enlightenment from our *confrères* in North Carolina. In the opinion of the editor of the journal referred to, "it will prove to be the very thing the profession has so long desired" for hypodermic use.

It is reported that there is now more typhus and scarlet fever in Dublin than there has been at any time during the past three years.

THE Princess Alice Hospital at Darmstadt, the principal English memorial to the late Princess, was formally opened by the Grand Duke of Hesse on Saturday last.

DR. DUTRIEUX, whose report on the cholera was so insultingly treated by the Board of Health, has returned from Europe, and will publish a second report as soon as Dr. Hunter's final report appears.

AT the election at the Académie de Médecine in the Section of Therapeutics and Medical Natural History, in order to fill the vacancy caused by the death of Dr. Davaine, Dr. Vidal received the votes of fifty-seven of the eighty-five academicians present, Dr. Hayem following next with twenty-four votes.

ANOTHER Paris *interne* has fallen a victim to diphtheria contracted in the performance of his duty. Three weeks ago a child was brought into hospital suffering from diphtheria, and was attended by M. Gustave Rivet, the *interne* on duty. The next day he sickened of the disease; the membrane invaded the larynx, and tracheotomy was discussed, but M. Rivet was then too weak to undergo it. On Monday last he died.

DR. BLOT, in his report on the vaccinations performed by the Académie de Médecine for 1882, calls the particular attention of the Academy to the negligence of parents respecting the operation, and the need of the intervention of the law. On examining the ages of the children, whether vaccinated at the Academy or at the different other establishments in Paris, he finds that more than a third of them had exceeded the age of a year.

CHLOROFORMISATION DURING SLEEP.—The *New York Medical Record*, October 27, closing an article on Chloroform Narcosis during Sleep, in which several publications on the subject are passed under review, observes:—"It would appear, therefore, from the foregoing and other accumulated evidence, that it is quite possible to bring a sleeping patient profoundly under the influence of chloroform without first causing a period of consciousness. This is more especially true of children. In adults, chloroform-narcosis during sleep is, apparently, not so easy, and in many instances it probably cannot be accomplished at all. But that in certain cases it is possible, particularly where careful judgment and skill are exercised in the administration of the drug, we think that there can be no doubt. To be successful, however, it is necessary that the means employed, the quantity used, etc., should be selected with excellent judgment, and the drug given by an experienced physician with great care and by easy and gradual approaches. But that even this plan, faithfully carried out, will not succeed in all cases, is equally evident. In this light, however, we cannot help thinking that the possibility of this procedure would be more practically conclusive were all the successful attempts recorded side by side with the failures."



# IMPORTANT MEETING AT SIR WILLIAM JENNER'S.

## THE CASE OF MESSRS. BOWER AND KEATES.

A DRAWING-ROOM meeting of a large number of the leading consultants and practitioners residing in London was held at the residence of Sir William Jenner, on Monday evening, December 10, to consider the case of Messrs. Bower and Keates, who, it will be remembered, were recently charged with the manslaughter of a child suffering from diphtheria, upon whom they had performed the operation of tracheotomy to avert impending asphyxia. The matter was taken up by the Public Prosecutor, who conducted the case against the defendants. The case was brought before the College of Physicians at the last meeting of the Fellows, on November 22, by Dr. Moxon, and it was referred to the Council to consider what steps could be taken to protect members of the profession from such unwarrantable prosecutions as this proved to be.

The meeting was opened by some remarks by Sir WILLIAM JENNER, in the course of which he stated that he had invited the members present to attend the meeting because he felt that the subject was one of the gravest importance, and one in which every member of the profession must feel a deep personal interest; for any medical man, whether consultant or practitioner, might be placed in a similar position at any moment.

Dr. Moxon was then called upon by Sir William Jenner to make a statement of the details of the case to the meeting. From this it appeared that two actions had been brought against the unfortunate gentlemen; one a civil action, brought by the father of the child to recover damages from Messrs. Bower and Keates because he had been instructed by them, after the operation of tracheotomy had been performed, to suck the tube which had become obstructed, and thereby to save the life of his own child. The father subsequently had some slight throat affection, which, it was thought, was probably of a diphtheritic nature, though it was certainly not severe diphtheria; and it was to recover damages for this that he brought the action. The first trial terminated by the disagreement of the jury. A new action had been commenced, and this part of the matter was therefore *sub judice* and could not be discussed at present. After the failure of the civil action, although it had been given in evidence in the course of the trial that the parents had no complaint to make concerning the treatment of the child, and, indeed, were completely satisfied therewith, the mother proceeded to swear an allegation at the Lambeth Police-court, stating that the treatment of the child had been improper, and charging its medical attendants with manslaughter. This charge was taken up by the Public Prosecutor, who conducted the action on behalf of the Crown. It might appear scarcely credible that this high public functionary felt justified in undertaking the criminal prosecution of these gentlemen for the manslaughter of their patient, without one atom of medical evidence before him in support of the charge. The result of the examination of the defendants before the magistrate was the dismissal of the charge immediately after the cross-examination of the medical witness summoned on behalf of the prosecution—the magistrate remarking that this was a case of “persecution,” not prosecution.

It appeared clear from Dr. Moxon's statement that the united action of the profession was called for in three distinct lines. First, to bring under the notice of the Government the terrible injury that must be inflicted upon any medical man against whom the Public Prosecutor may see fit to take action; and to ask that steps may be taken to restrain this official from taking action without first obtaining adequate medical evidence in support of the charge. Secondly, to convey to Messrs. Bower and Keates an expression of the deep feeling of sympathy for them in their trouble which is felt throughout the profession. Thirdly, to obtain subscriptions to indemnify them for the heavy legal expenses which they have been compelled to incur.

After some discussion on the best methods by which these objects could be attained, the following resolutions were unanimously adopted:—

1. Proposed by Sir James Paget, and seconded by Dr.

Moxon—“That a committee be formed for the purpose of collecting subscriptions to defray the legal expenses incurred by Messrs. Bower and Keates in their defence from the charges recently brought against them, and of preparing a statement by which subscribers may express their sympathy with those gentlemen, and their conviction that the treatment of the case for which they were prosecuted was right. That the committee consist of Sir William Jenner, Sir James Paget, Dr. Quain (treasurer), Dr. Wilson Fox, Dr. Moxon, Dr. Glover, Mr. Hutchinson, Mr. Bryant, Dr. Bright (Forest Hill), Mr. Jackson (Highbury-grove), Mr. Sidney Turner (Anerley); with Dr. Mahomed and Dr. Burnet as honorary secretaries.”

2. Proposed by Sir James Paget, and seconded by Dr. Wilson Fox—“That the Council of the Royal College of Physicians and the Council of the Royal College of Surgeons be requested to consider the propriety of representing to the Secretary of State for the Home Department that it is very desirable that there should be some arrangement by which the Public Prosecutor may obtain the assistance of skilled advisers when he is solicited to institute prosecutions of medical practitioners.”

A vote of thanks to Sir William Jenner for summoning the meeting to his house, and for so promptly and powerfully taking action in defence of the profession in a matter of vital importance to every member of it—proposed by Dr. Glover, and seconded by Mr. William Adams (of Regent's-park-road)—was carried with enthusiasm, and brought the meeting to a close.

Promises of subscriptions which would amount to upwards of £200 were received on this evening alone; but the committee will be asked to consider at its next meeting whether it would not be better to limit the amount of each subscription, as it is felt that the support of every member of the profession is required, and that by limiting the amount of each subscription a large number of gentlemen will have the opportunity afforded them of expressing their sympathy with the movement.

A complete statement of the case, with a memorial for signature, is being prepared by the committee, and it is hoped that it may be in the hands of every member of the profession in the United Kingdom by about the end of next week. We have no doubt that the response which will be made to this appeal will be unanimous and emphatic.

Appended is a list of the subscriptions promised at the meeting:—

	£	s.		£	s.
Sir William Jenner .. .. .	25	0	Mr. J. Sidney Turner, Anerley	3	3
Dr. Moxon .. .. .	25	0	Dr. John Brockwell, Gipsy Hill .. .. .	2	2
Sir James Paget .. .. .	21	0	Dr. Arthur Evershed, Hampstead .. .. .	2	2
Dr. Quain .. .. .	10	10	Dr. Forshall, Highgate .. .. .	2	2
Dr. Wilson Fox .. .. .	10	10	Dr. E. Baxter Forman, Stoke Newington-road, N. .. .. .	2	2
Dr. Herbert Davies .. .. .	5	5	Dr. John Hewer, Highbury New-park, N. .. .. .	2	2
Mr. Bryant .. .. .	5	5	Dr. Hooper May, Tottenham	2	2
Mr. William Adams, Regent's-park-road, N.W. .. .. .	5	5	Dr. Nash, Lansdowne-rd., W.	2	2
Dr. Glover, Compton-terrace, N.W. .. .. .	5	5	Mr. J. Rand (paid to local fund, Dulwich) .. .. .	2	2
Mr. J. T. Jackson, Highbury-grove, N. .... .	5	5	Mr. Sidney Parsons, Kensington-park-road .. .. .	1	1
Dr. H. J. Stoker, Highbury, N.	5	5	Dr. Mahomed .. .. .	1	1
Dr. Bright and Mr. Eyre, Forest Hill .. .. .	5	5			
Dr. F. T. Roberts .. .. .	3	3			

The following gentlemen, who either attended the meeting or were unavoidably prevented from doing so, also promised subscriptions; but the sums were not stated:—Sir William Gull, Sir Andrew Clark, Sir Spencer Wells, Prof. Lister, Mr. J. Allen (Alexandra-road, N.W.), Mr. Edgar Barker (Hyde-park-street, W.), Mr. J. Blackstone (Albert-terrace, N.W.), Dr. Blades (Kennington-park-road), Mr. Blason (Edgware), Dr. J. Brockwell (Gipsy Hill), Dr. Lauder Brunton, Mr. W. F. Butt (Park-street, W.), Mr. Brudenell Carter, Mr. Arthur Durham, Dr. Easton (Norfolk-crescent), Dr. Gibbings (Dalston), Dr. Robert Harris (Hackney), Mr. Christopher Heath, Mr. E. Reynolds Ray (Dulwich), Dr. Russell Reynolds, Dr. H. Cooper Rose (Hampstead), Dr. Sergeant (Camberwell), Mr. Septimus Sibley (Harley-street), Dr. Stocker (Peckham Rye).

INFECTIOUS DISEASES AT BARNSELY.—The whole of the public elementary schools at Barnsley were on Saturday ordered by the authorities to be closed for a month, owing to the prevalence of measles and other infectious diseases in the town. There are over 300 cases of measles alone.



## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### DR. AIRY'S REPORT ON DIPHTHERIA AT GREAT DUNMOW.

IN May of the present year a statement appeared in a local journal, to the effect that diphtheria was alarmingly prevalent at Great Dunmow, in Essex, and as at about the same time private representations were made to the Local Government Board impugning the sanitary state of the town, Dr. Airy was instructed to proceed to the locality and institute an inquiry. Up to the time of his visit on May 15 last, there had been, as far as could be ascertained, about thirty-six cases of diphtheria in the Dunmow Rural Sanitary District since the beginning of the year, of which no fewer than twenty proved fatal, including three which were registered as "malignant sorethroat." Twenty-three had occurred in the parish of Great Dunmow (population 3005); the remaining thirteen in neighbouring parishes. Of these thirteen outlying cases the greater number showed no connexion with those in Great Dunmow. The first appearance of undoubted diphtheria in this outbreak took place at Great Dunmow in January last, although it had been noticed that some of the children had been suffering with sorethroat for two or three months previously. Fatal diphtheria would appear, however, to have been very rare in the town, since only two deaths had been registered under that name in the last ten years. The two children in the family first attacked had not recently been away from the town, nor had the family been visited by any friend who could have been suspected of carrying diphtheritic infection; they had both, however, attended the Dunmow National School, and, as the subsequent spread of the infection took place, in a large measure, among the scholars of this school, attention was especially directed to its surroundings in seeking for the origin of the outbreak. In the first place, Dr. Airy noted the existence of a large pond in its immediate vicinity, which, it was subsequently found, received some sewage at the upper end; this pond was said often to stink, especially in hot weather. But in going carefully over the National School buildings, Dr. Airy discovered in one of the boys' closets an unmistakable smell of sewer air, and on close examination it was found that the earthenware siphon of the water-closet was broken through, about two inches below the level of the trap-roof, so that the water sank below that level, the trap was unsealed, and there was free way for the sewer air to escape. Assuming the sewer air to contain that which causes diphtheria, this would be sufficient to account for diphtheria attacking a susceptible child who had used the closet; and this, in Dr. Airy's opinion, may be said to have caused the present outbreak, which was chiefly spread afterwards by close personal contact amongst the children attending the school, especially in one particular class, and among children of the same family. In conclusion, Dr. Airy remarks: "The sanitary condition of Great Dunmow is far from satisfactory. Sewers have been laid at various times to drain different small sections of the town; they have a comparatively short course, and discharge at convenience into the nearest ditches among the gardens and outlying cottages on the lower side of the main street. The ditches eventually communicate with the river Chelmer, which is visibly polluted thereby, and the sewers are entirely without ventilation." Dr. Airy recommends that the Sanitary Authority should take skilled engineering advice as to the best way of dealing with the sewage of the town, so as to abate the nuisances at present existing in connexion therewith; and also that the nuisance caused by the large pond near the National School should be at once attended to.

### MR. W. H. POWER'S REPORT ON DIPHTHERIA AT WHITSTABLE.

DURING the past two years, Whitstable, in the Blean Rural Sanitary District, has gained an unenviable notoriety for diphtheria mortality, and the Local Government Board, in December of last year, requested the Rural Sanitary Authority to instruct their health officer to furnish a report on the circumstances which led to the prevalence of the disease. Dr. Robinson, the health officer, duly complied with this instruction, and the result of his observations was

that diphtheria was imported into the district in October, 1880, and quickly extended, especially among children attending a particular school. The Whitstable schools, indeed, he regarded as having had throughout much to do with the dissemination not only of diphtheria, but of scarlatina also, which in 1881 largely prevailed concurrently with it. In reference to the continued maintenance or frequent recurrence of diphtheria, Dr. Robinson was disposed to think that insanitary conditions (which he specified), in conjunction with the careless habits of the population and the apathy of the school managers, had had a great deal to do with fostering the disease in the town. This latter opinion induced the Local Government Board to institute an inspection of Whitstable, and in May of the present year Mr. W. H. Power was despatched to undertake it. His first step was to endeavour to learn something definite as to the localities affected by diphtheria and throat-illness, and the dates of incidence on them of these maladies; he speedily found, however, that no such information was to be obtained, as no sufficient records had been kept by the medical practitioners of the town. In these circumstances, Mr. Power frankly admits that his report simply deals with the facts as to disease prevalence in Whitstable, and the results of his observation of the sanitary state of the place, without attempting to assign to any particular condition its share in the production of diphtheria or other disease. There can be no doubt, he says, that for a time—viz., from October, 1880, to the end of 1881—diphtheria and scarlatina were concurrent, and even in particular instances attacked at one time different members of the same family. Moreover, it is worthy of mention, Mr. Power observes, that, during the concurrence of these two diseases in Whitstable, more than one practitioner had difficulty in diagnosing between one and the other of them. Setting aside nondescript minor sorethroat, the etiological relations of which might only be guessed at, there occurred, it was stated, cases of smart throat-illness associated with distinct skin-rash, and altogether free from faucial false membrane, that at no period of their illness or convalescence betrayed any sort of tendency to peeling of the skin, such as usually follows scarlatina. The sanitary condition of Whitstable, according to the present report, whilst leaving much to be desired, is not so bad as that of many of the country districts necessitating inquiries by the medical officers of the central Board. The worst feature has been the water-supply, up to the present time derived from shallow wells: but a local waterworks company has succeeded in obtaining excellent water from the chalk in ample quantity for the requirements of the district; and though as yet only some three hundred houses have adopted the supply, the outlook in this direction is more promising, especially as Mr. Power in his report bears testimony to the efforts of the Blean Rural Sanitary Authority to carry out their important duties. Their principal omission, he thinks, is in having as yet neglected to provide a properly equipped hospital for the isolation of cases of infectious diseases occurring in the place.

### DR. H. F. PARSONS' REPORT ON SCARLET FEVER AND DIPHTHERIA IN THE THORNE DISTRICT.

IN May of the present year, Dr. Parsons was deputed by the Local Government Board to institute an inquiry into a recent prevalence of scarlet fever and diphtheria in the Thorne Registration District and the surrounding neighbourhood. It may be mentioned that the district in question is a level fenny tract, situated partly in the South of Yorkshire, partly in the North of Lincolnshire. It was in ancient times a swampy waste, forming a part of the Royal Forest of Hatfield Chase, but by the skill and enterprise of successive generations of engineers and capitalists it has been converted into fertile, mostly arable land. On examination, Dr. Parsons found that the proportional mortality of the Thorne District is under that of the kingdom as a whole, and, as regards certain of the zymotic diseases, bears favourable comparison with even the healthiest districts, but is above the average as regards scarlet fever and continued fevers. Scarlet fever had been prevalent in the district, with a greater or less mortality, from 1872 to 1880; it almost disappeared in 1881, only two deaths being attributed to it in that year—one in June, and the other in September. The present epidemic, Dr. Parsons observes, appears to have commenced in the parish of Belton about December, 1881;



the earliest cases were slight, and their origin was not ascertained; the first death occurred at Epworth, on January 3, 1882. The fever first became prevalent at Carr Houses, a hamlet of Belton, in a low swampy situation, where also it was especially fatal. One of the earlier households attacked was that of a yeoman who sold milk to a few of his neighbours, who came or sent their children to the house to fetch it. Some of the latter at once contracted the disease, and the attention of the medical officer of health for the district having been called to the circumstance, the sale of milk from this house was at once stopped. After a searching inquiry and a thorough examination of the district, Dr. Parsons came to the conclusion that the propagation of the disease had been effected by the intercommunication of infected households with those previously healthy, there being much carelessness in this respect among the inhabitants; the mingling of children of different households at school had also a share in spreading the disease. Diphtheria, too, was found to have prevailed in the district concurrently with scarlet fever, and the two diseases seemed to be interchangeable, as if the one had been capable of giving rise to the other: several instances were met with in which persons who had had former attacks of scarlet fever had recently suffered from diphtheria; and it appeared to Dr. Parsons that scarlet fever had tended more to assume a diphtheritic character in houses where there were local insanitary conditions, such as defective and untrapped drains, and foul privy middens. The apparent prevalence of "fever" has been partly due, Dr. Parsons says, to a mistake of the registrar, but the mortality from it has, nevertheless, been above the average; whilst recent outbreaks of enteric fever have been associated with unwholesome conditions, such as exposure to exhalations from defective drains, and the drinking of polluted water. The sanitary condition of both the urban and rural districts is, the report says, very unsatisfactory, and the action taken by the respective sanitary authorities to prevent the spread of infectious disease very incomplete; whilst the arrangement by which the rural district is divided between a number of medical officers of health has not, on the whole, worked well, and there is reason to believe that more satisfactory progress would be made if the Authority had the uniform skilled advice of a competent officer acting for the whole district.

## ABSTRACTS AND EXTRACTS.

### VERONESE ON SYPHILIS IN RELATION TO DISEASES OF THE NERVOUS SYSTEM.

IN the *Wiener Med. Klinik*, Heft 9, 1883, is contained an interesting paper on this subject, a concise review of which is published in the *Centralblatt für Klin. Medicin*, No. 46. Amongst the earliest symptoms of syphilitic affection of the brain are headache and sleeplessness, which the writer assumes to be associated with hyperæmia of the brain and its membranes, rather than with the formation of tophi or hyperplastic forms of local inflammation. These latter are more usually indicated by localised pain and tenderness on pressure. Extreme redness of the retina and optic nerve has been observed. Another symptom, pointing to a modification of the blood-supply to the central nervous system, may be found in the altered irritability of the skin and tendon reflexes, which at first are found to be greatly increased, and later on become diminished even below the normal standard. Conditions of maniacal excitement and other functional disturbances may ensue. The intolerance which such cases manifest for any form of opiate is very marked. Chloral, however, is well borne. In many of the cases in which syphilis appears as the cause of the brain disturbance, other elements, such as abuse of alcohol, etc., may be present. The syphilitic affection of the nervous centres is generally manifest before similar affections of other viscera can be discovered; it may show itself at any time during the first ten years after infection. It occurs most frequently in males, and usually amongst persons of the better classes. With respect to its connexion with well-marked forms of disease, such as progressive paralysis and tabes, Dr. Veronese considers that no direct influence can be recognised; but he thinks that while, on the one hand, syphilis may give rise to symptoms which may simulate those of special diseases, its exhaustive influence on the nerve-centres may, on the other

hand, be a directly exciting cause for the development of various affections for which a predisposition may already exist.

### THE FREQUENCY OF ANTEFLEXION.

A RECENT number of the *Centralblatt für Gynäkologie* contains a report of the meetings of the gynæcological section of a German scientific association, held at Freiburg, under the presidency of Dr. Freund, of Strasburg. Among other communications of interest, a paper by Bandl, of Vienna, occupied the attention of the congress, the full title of which runs, "On the Normal Position and Normal Shape of the Uterus, and the Anatomico-Pathological Causes of Apparent Antelexion." Our readers will be well aware that antelexion of the uterus is by many regarded as a morbid condition, causing numerous and varied symptoms, and seldom existing without some disturbance in the functions of the affected organ. This view has lately been controverted, the most elaborate attacks being those of Herman and of Vedeler. The chief ground of opposition—Herman's main argument, and Vedeler's only one—is that they find antelexion very common, and just as frequent in those who are healthy as in those who suffer from uterine disturbance; and they therefore conclude that it is one of the natural shapes which the uterus may have. To this question Bandl has directed his attention. He has investigated the frequency of antelexion in three ways:—1. By the examination of patients simply. 2. By the examination of patients upon whom abdominal section was about to be performed, and in whom the idea of the shape and position of the uterus gained by vaginal examination could afterwards be verified or corrected by subsequent examination from within the peritoneal cavity. 3. By examination of dead bodies. By the first method, Dr. Bandl found that apparent antelexion was exceedingly common, but, as it is not stated that he examined any women who did not complain of functional uterine disturbance, his results do not tell either for or against the views of Herman and Vedeler. The cases in which the conclusion arrived at by vaginal touch was checked by examination from above after the abdomen had been opened were very few. The author found in them the uterus slightly bent forwards. His post-mortem researches were made on 200 bodies—of children, virgins, and parous women. He found sometimes antelexion existing before the uterus was removed, but that after the uterus was taken out of the body it became straight. In only four cases did he find antelexion persisting in a uterus severed from its attachments. Dr. Bandl unfortunately does not give any numbers except those we have quoted. This result of post-mortem research is susceptible of several explanations. It may be said that antelexion is a condition temporarily produced by the method of examination; or that it is usually a result of forces acting on the uterus during life, and seldom a shape properly belonging to the uterus and retained by it; or that its losing its curve after removal (a fact in which our own experience accords with that of Dr. Bandl) is a result of post-mortem change. Whichever be the explanation preferred, it does not seem to us to affect the argument based on the identical frequency of antelexion in health and disease, because, if any objection founded on it be taken to the results of examination of the healthy, it applies equally to those gained from the other class.

**DIPHTHERIA IN RUSSIA.**—Dr. Drowsdow, reporting to the Kasan Medical Society on the epidemic of this disease which occurred in 1882 in the circle of Nowouson, consisting of 61,400 inhabitants, stated that 1644 cases came under treatment, but that more than double this number were sufferers. The mortality varied from 47 to 64 per cent., according to the time of year, the maximum of deaths occurring in October. The country practitioner does his work at a great disadvantage on account of the long distances at which patients are placed, so that treatment is usually only illusory; and the sanitary rules and precautions are generally left unobserved by the peasantry, the epidemics running their course until they have exhausted the supply of subjects for attack. Dr. Drowsdow points out how little is to be expected in sanitary matters from a population in which a favourite maxim is that "a cow costs more than a child."—*St. Petersburg Medizinische Wochenschrift*, November 24.



**HOT MILK AS A RESTORATIVE.**—Milk that is heated to much above 100° Fahr. loses, for the time, a degree of its sweetness and density; but no one fatigued by over-exertion of body or mind who has ever experienced the reviving influence of a tumbler of this beverage as hot as it can be sipped, will willingly forego a resort to it because of its having been rendered somewhat less acceptable to the palate. The promptness with which its cordial influence is felt is indeed surprising. Some portions seem to be digested and appropriated almost immediately; and many who fancy that they need alcoholic stimulants when exhausted by labour of brain or body, will find in this simple draught an equivalent that will be as abundantly satisfying and more enduring in its effects.—*Louisville Med. News*, November 10.

**ATROPHY OF THE OLFACTORY NERVES.**—In relation to a case mentioned at the Société de Biologie by M. Lebec, in which, on dissecting the brain, he had found that the olfactory nerves were absent, although the sense of smell was not interfered with, M. Duval observed that he believed that this contradiction did not really exist, and that the olfactory nerves were really only atrophied and reduced to some thick fibrillæ beneath the pia mater. Such fibrillæ he has found in the pituitary, and these would suffice for the ordinary sense of smell. Civilised man, in fact, possesses, M. Duval added, an olfactory apparatus disproportionate to his needs, and nine-tenths of it might be destroyed without the olfactory power being notably modified. This would not be the case with savage man, who utilises all his olfactory fibres. There is, indeed, reason to believe that the atrophy observed in the nerves of this brain is destined to become the rule in civilised races. It is the same with the teeth, of which we have thirty-two, while twenty-eight are all that are necessary; and the wisdom-teeth tend to disappear, so that in the course of some thousands of years they will have done so completely.—*Gazette des Hôpitaux*, November 27.

**CHLOROFORM-WATER.**—This application, which is much employed in the Paris hospitals, is prepared as follows, according to Profs. Lasègue and Regnaud's formula:—An excess of chloroform is poured into a bottle three-parts filled with distilled water, and, after repeated shaking, the mixture is allowed to stand until the extra chloroform is deposited, and the liquid quite clear. The transparent portion is then to be removed by a syphon, forming a saturated solution of ten grammes of chloroform per litre. Applied on compresses, either in its pure state, or diluted with a half or its whole weight of water, it is found to relieve superficial pains; but when these are more deeply situated, a very hot linseed-meal poultice is first applied, which is afterwards replaced by the compress of chloroform-water. Active revulsion is thus produced, which relieves the pain. Associated with a weak solution of opium it relieves vague dental pain; and with syrup of morphia it is successfully given internally for various forms of *malaise* from indigestion, such as gapings, eructations, sense of weight, etc. It is also useful as a palliative in cancer of the stomach.—*Union Méd.*, November 22.

**LONG RETENTION OF NEEDLES IN THE BODY.**—Dr. Buist, of Charlestown, relates in the *Philadelphia Medical Reporter*, November 10, an additional example of this occurrence. He removed a needle from the left thigh of a lady, twenty-six years of age, which, from positive evidence, was known to have entered the right arm when she was two years old. The presence of the needle was well known to her parents, and, at intervals of her life, sharp neuralgic pains had been complained of, extending over the thoracic region, and latterly around the pelvis. An acute lancinating pain directed attention to the left thigh, and a foreign body was detected in the soft tissues of its posterior parts. This proved to be a needle, which was blackened and rough, and required considerable force for its extraction—it proving also to be of a pattern not at present manufactured. As a contrast to the twenty-four years' residence of this needle, Dr. Buist refers to another case, in which, on an exploratory incision having been made into a tumour in the right thigh, about a pint of pus, which had been bound down by the fascia lata, was discharged. On examination, a small thin body was found embedded in the lower third of the femur, which proved to be part of an ordinary needle. This needle had been known to have entered the thigh six months previously; coming in contact with the femur, it induced inflammation and suppuration.

## REVIEWS AND NOTICES OF BOOKS.

*Les Microzymes dans leurs Rapports avec l'Hétérogénéité, l'Histogénie, la Physiologie et la Pathologie.* Par A. BÉCHAMP. Paris: Baillière et fils. 1893. 8vo, pp. 992.

WE are told in the preface that this book contains a new doctrine as to organisation and life, and the early chapters are occupied with a description of the facts and experiments which led to the formation of this doctrine. The author's views as to the rôle which is played by the microzymes of the animal body must be already familiar to those who have read his paper in the "Transactions of the International Medical Congress," 1881. A physiologically healthy organism is defined as one "of which the microzymes in all the centres of activity conform most to an ideal type, having undergone no morbid change or extra-physiological influence"; and morbidity is said to be "a superadded property, dependent no doubt on some material change." The products of the activity of the microzymes in health are believed to be so balanced that they are useful to the whole organism; whereas, in the pathological state, they bring the blood to a state of dyscrasia, which produces, more or less, in all the centres of organic activity, a correlative dyscrasic state. It is further imagined that the microzymes differ according to temperament, constitution, and diathesis, so that there are lymphatic, scrofulous, cancerous microzymes, etc.

The author sees in bacteria the effect and not the cause of a disease, and has no sympathy with those who uphold the view that specific organisms may be introduced into the body from without and give rise to specific diseases. "There are," he says, "microscopic organisms, from the microzome to the most developed bacterium which is derived from it by evolution, which are capable of communicating diseases. To deny this is to deny the evidence. But they are not met with in air, water, or soil, except accidentally, and then we know from whence they come. One has never been able to demonstrate that a disease, e.g., splenic fever, has been produced by a germ taken from some point of the external air. When one has provoked the disease it has been by taking the germ from soil where animals had been buried which had died of splenic fever." Admitting that splenic fever may be provoked by what he terms the bacteridium (*Bacillus anthracis*), the author asks whether it is really the parasite which multiplies, or whether "the bacteridium which is introduced does not provoke a dyscrasia, which becomes the point of departure of the corresponding morbid evolution of the microzymes of the affected animals." Anyone, we should think, who had examined suitably prepared sections of organs of animals which have died of splenic fever would have no doubt as to the multiplication of the bacteridium, and would not require to seek the assistance of a dyscrasia to explain the production of the disease. The author's views as to the mode of production of tuberculosis are in entire disaccord with those which are, as the result of recent researches, generally accepted at the present time. He says: "Let us conclude that the free tuberculous microzome comes from the pathological destruction of an epithelial globule or cell of determined tissues; that it is a ferment, and that it is capable of cultivation, and able to multiply in suitable media. It does not pre-exist originally in the air, it is the product of the diseased organism. . . . Phthisis, tuberculosis, is not a parasitic disease. No, no; there is not a tuberculous microzome originally created to make men and animals phthisical."

Suppuration, glanders, variola, syphilis, paludinal and puerperal fevers, etc., and even spirillar fever, are all explained according to the theory of microzymes and the regression of cells. With regard to the latter disease, in which, if in any, the specific character of the organism has, after the researches of Vandyke Carter, assuredly been established, the author says, "If it (the spirillum) is a true parasite in the blood, one should be able to show the place by which it comes out of it. If, on the contrary, it is only the product of evolution of the microzymes, the notion of change of function and the history of the facts of regression explain all." M. Béchamp commands much more attention when he speaks with the authority of a chemist, than in the capacity of pathologist, and those who are interested in the subject of fermentation will find in the early chapters much matter



which is worthy of careful study. Unfortunately, the book is marred by a continuation of the old struggle for priority between the author and M. Pasteur, of whom he speaks in bitter terms, and whose methods of experimentation, deductions, and even language, he repeatedly condemns. Whether future generations will see in Béchamp or in Pasteur the precursor of the antiseptic system, we cannot foretell, but we incline to the belief that the theory of microzymes, as applied to disease, will sink beneath the weight of evidence in favour of specific organisms.

*A Handbook of Hygiene and Sanitary Science.* By GEORGE WILSON, M.A., M.D., F.R.S.E. Fifth Edition. London. 1883.

So familiar is this work that the eye in glancing over the shelves of medical libraries recognises at once the green-coated octavo with as much facility as the back of a friend in a motley crowd. The chief improvement in the present (fifth) edition is the chapter on vital statistics, in which are clearly detailed the methods followed by the Registrar-General in the calculation of his more important tables. The chapter on dwellings is much to be commended; and a study of the new section, giving short and explicit directions as to the best method of inspection, will be indispensable to all students desiring to know the practical details of sanitary work. One of the weak points of the book is that portion relating to the examination of food. It may be generally and not unfairly stated that the directions given to the medical officer of health as to his inspection of milk, butter, flour, and bread are in point of information a quarter of a century behind date. While large space is devoted to details as to the chemical examination of air, such simple processes as the gelatine test for alum, the calculation of the "fat" and "solids not fat" in milk by Clausnizer and Mayer's formula, and Koettstorfer's method of titrating butter-fat—none of which require any great chemical skill or consume more than half an hour, and all of which may be used advantageously by a medical officer of health—are passed over in silence. Notwithstanding these defects and the inferior literary style of the historical composition, the "Handbook" has many and conspicuous merits, and will, without doubt, hold for many years the position it has gained.

*Transactions of the Obstetrical Society of London.* Vol. XXIV., for the Year 1882. London: Longmans, Green, and Co. 1883. Pp. 339.

THE contents of this volume are, we need scarcely say, much the same in kind as in former years. As a whole, we think it rather above the average in point of scientific merit. It consists partly of carefully worked out scientific papers; partly of reports of cases—some instructive, some deserving record only because uncommon; some described well, others imperfectly. Among the papers we find one upon puerperal diabetes, by Dr. Matthews Duncan, in which is given, so far as we know, the only account of this complication of pregnancy that has yet been published. Like all the writings of its distinguished author, it is strictly scientific in tone and method, and marked by fulness of knowledge, exactness in statement, and caution in inference. Dr. John Williams writes upon the natural history of dysmenorrhœa, and approaches the subject from an entirely new standpoint. Most of those who have hitherto attempted to enlighten the profession upon this disorder have considered it simply from the point of view of treatment, drawing their conclusions as to the nature of the malady simply from the apparent success or failure of some particular remedial measure. It is plain that no valid conclusions can be drawn from the course of a case subsequent to treatment unless we know what is likely to have been its course without treatment; but we cannot call to mind any writer who has as yet taken the trouble to ascertain the history of dysmenorrhœic patients when not interfered with by treatment. This Dr. Williams has done, basing his conclusions on a careful analysis of 1944 cases. Dr. Playfair writes on Emmet's operation, but as we commented on this paper and the discussion thereon at the time it was read, it is unnecessary now to do more than refer to it. The relation of backward displacements of the uterus to painful menstruation is the subject of a paper by Dr. Herman, in which he shows reason against the widely accepted view that dysmenorrhœa

accompanying these displacements is due to flexion of the canal. The volume also contains two able papers by Dr. Champneys—one on an obliquely contracted pelvis, the other on a kyphotic pelvis, in which he considers the mode of production of the deformities present in each specimen. Mr. Knowsley Thornton describes a remarkable case of extra-uterine gestation, treated by abdominal section, and removal both of foetus and a hypertrophied placenta. A case of "so-called" imperforate hymen is important because it affords Dr. Matthews Duncan the opportunity of setting forth his opinions as to the nature and treatment of this malformation. There are two papers by foreign authors—one by Dr. Popow, of Pensa, on the corpus luteum; and one by Dr. Chahbazian, of Paris, on ergotine in post-partum hæmorrhage. Although the volume contains, as will thus be seen, some good work—more than in some former years,—yet, considered as representing collectively the progress made by the scientific obstetricians of the capital city of the world, there is scarcely as much of it as a stranger might expect.

## REPORTS OF SOCIETIES.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 11.

JOHN MARSHALL, F.R.S., President, in the Chair.

AT the ordinary meeting of the Society on Tuesday last, an interesting discussion followed the reading of a paper by Mr. Hutchinson on amputation of the thigh for senile gangrene. Subsequently a communication from Dr. Champneys on mediastinal emphysema in connexion with tracheotomy was read. It was ballot night also, and an unusually long list of new Fellows were elected into the Society.

#### ON HIGH AMPUTATIONS FOR SENILE GANGRENE.

MR. HUTCHINSON read a paper on the above subject, which began by the statement that the author's chief object was to urge the safety and expediency of amputating in senile gangrene if the operation were done at a good distance from the disease. In the common form of gangrene of the toes and foot, the lower third of the thigh was the part suggested, and in rare cases in which the hand is affected, the middle of the upper arm. After remarking on the fact that amputations had hitherto generally proved disappointing owing to return of the disease, the author urged that this was from their having usually been done too low down. The calcification of the arteries, upon which in the main the disease depended, was usually greatest near the periphery, and hence the difficulty as to supply of blood for the nutrition of the flaps. This source of danger was not encountered if the amputation were done sufficiently high. In a series of cases in very old patients the author had not encountered the recurrence of gangrene excepting in one. In three the stump had healed well. In a fourth, in which the patient, although not old, was prematurely senile, and the calcification of the arteries extreme, the recovery had also been excellent. In this instance the femoral artery was so rigid that it stuck out from the face of the stump like a small bone. One of the patients in whom the stump had healed without a drawback was seventy years old. In two of the cases the other foot had been subsequently threatened with gangrene. As to the time to be selected, the author thought that as soon as the patient was so ill as to be confined to bed and the disease well established, it was better to do the operation. Spontaneous cure was, he urged, very exceptional, and a great majority of such cases ended in death after a long period of much suffering. The thinner the patient the less was the probable risk of the amputation. In a few cases in which the thigh was exceptionally fat and the tissues flabby, it might be wise to hesitate as to recommending it. In all his cases Lister's precautions had been carefully used, and in two or three the patient had never experienced the slightest pain from the day of the operation.

THE PRESIDENT said it was interesting to see that our views on this subject were undergoing change, and that it was due to the advances in surgery generally which were being made. The paper was calculated to teach us that



amputation in these cases was more successful than was generally believed, especially if done at a distance from the disease. He saw many surgeons of eminence around him, and invited an expression of their opinion.

Mr. RIVINGTON said his own experience, though not an extensive one, went to corroborate the views propounded by Mr. Hutchinson. He had never met with a case of spontaneous gangrene which, having spread beyond the ankle, ever got well alone; though toes occasionally came off, and the stumps healed. Not having referred to his case-books, he was unable to speak with absolute certainty, but he had amputated in one or two cases with success. In his last case, done about a year ago, the gangrene had spread beyond the ankle; the arteries were very calcareous. He had amputated above the knee, using antiseptic precautions; decomposition nevertheless set in, and although there was some slight superficial ulceration of the stump, it finally healed, and the man had done well. Thus his own experience was confirmatory of the views propounded.

Mr. HULKE had no personal experience of this method of preventive treatment. In analysing, however, Mr. Hutchinson's cases, he thought the arguments became less cogent than they were represented. The first three cases could hardly be considered as senile gangrene, and thus the practice rested on the two remaining cases. Mr. Rivington had said that these cases never recovered spontaneously; he had, however, seen such recoveries with exfoliation of foot or lower third of the leg. He was very averse to amputation, and before giving his adhesion to such a method of treatment he should require more conclusive evidence in its support, and more especially so as amputation of the thigh was a severe and dangerous operation. He remembered the old German maxim *à propos* of amputations—"Zollweise steigt die Gefahr" (the danger increases with every inch you go up).

Mr. BARWELL had not much experience in this matter. But in one case he had operated successfully, although there had been some slight superficial sloughing in the flaps. Mr. Hutchinson's reason for recommending amputation above the knee was because of the less likelihood of meeting with calcified arteries; but, in his own opinion, success depended less on this than on the condition of the capillaries and arterioles. In one of the cases related, diseased arteries were found notwithstanding, and he felt it was not possible to discriminate in all cases as to the extent of the arterial disease.

Mr. CROFT said he should like to say a few words, although he had never had such a case to deal with during the whole course of his hospital experience. He had been much struck with the title of the paper, Senile Gangrene—that is, gangrene in old people. But cases of a different kind had been introduced, and this gave him also an opportunity of drawing in other cases. The idea seemed to be to get well above the local disease. Most of the patients, if not all, died of blood-poisoning, more or less well marked. In performing amputation high up we had a broad margin of tissues between the healthy and diseased parts, and we thus wholly got rid of all local infection. In all forms of septic inflammation it was a sound principle to amputate at a distance from the infective centre. By using antiseptic precautions, additional chances of a favourable result were gained. He thought the cases described to-night demonstrated the value of amputation high up, not in cases of gangrene only, but in all cases of septic inflammation.

Mr. GODLEE referred to a case of gangrene, extending halfway up the foot, recently under his care in University College Hospital. There was also a history of syphilis, but this did not seem to be in any causal connexion with the gangrene. There was no pulsation to be felt in the affected lower limb. The other limb was healthy. As there was no sign of spontaneous recovery, he decided to amputate at the knee-joint. The man was still alive; and though his condition was not quite satisfactory, he had benefited by the operation. Antiseptic precautions were used. He had had no vessels to tie. There was never any decomposition in the wound, although some bone had necrosed, and pieces had to be removed on two occasions. He thought the bearing of the antiseptic treatment on these cases was important; and he believed antiseptics would allow us to amputate nearer the seat of disease. In such cases the tissues could not bear the irritation of the decomposition which took place when these precautions were not adopted. With perfect asepsis

we might go somewhat nearer the seat of disease than was possible formerly.

Mr. HARRISON CRIPPS said that he considered that Mr. Hutchinson had called attention to an extremely important point in practical surgery. Our knowledge of both the pathology and treatment of senile gangrene was chiefly owing to the admirable work of Brodie on this subject. That great surgeon, speaking with wide experience of the surgery of his time, argued very strongly that amputation was useless, owing to the almost certain recurrence of gangrene in the stump; on the other hand, he had mentioned the rareness of a spontaneous cure when the gangrene had once passed beyond the toes. The cases brought forward by Mr. Hutchinson clearly demonstrated, however, that an amputation performed high up the limb, with strict Listerian precautions, was often followed by most satisfactory results; and he attributed his success to the amputation being performed at such a height as to render the nutrition of the stump more certain. Experience might prove that this view was correct, but he (the speaker) could not agree with Mr. Hutchinson in regarding an amputation in the lower third of the thigh as an operation devoid of danger, for he still believed in what he had been taught—that every inch up the limb added to the danger of the amputation. There could be no question that arterial disease was the chief factor in these senile gangrenes. Nevertheless, he felt that there must be another cause at work to excite progressive ulceration and putrefaction. It appeared that the tissues were so imperfectly nourished, from the deficient blood-supply, that they became an easy prey to putrefactive changes when once started, and that they had no power to build up a barrier to stay their advance. Such putrefactive changes usually commenced through some slight wound or excoriation of the skin. Holding these views, he suggested that the protection of the stump even for a few days from external contamination, so carefully carried out by Mr. Hutchinson, was perhaps a more important factor in the prevention of the recurrence than the performance of amputation nearer to the centre of the circulation. Might it not be well, therefore, he asked, before resorting to so comparatively severe an operation as the amputation of the lower third of the thigh, to see whether removal in the lower third of the leg might not be sufficient, provided the stump was carefully kept warm, and prevented, by antiseptic treatment, from putrefactive changes during the early stages of healing? He would not have advocated such a procedure on speculative grounds alone, had it not been that, when Surgical Registrar of St. Bartholomew's, he recollected taking notes of a case in which Mr. Holden amputated through the lower third of the leg for well-marked senile gangrene of the foot. In that case antiseptic precautions were taken for the first few days, and although after awhile there was some sloughing of the flap, resulting in exposure of the bones, which were removed by a subsequent operation, the patient left the hospital with the wound healed.

Mr. SAVORY said the paper raised grave and important questions in theoretical and in practical surgery. Amputation of the thigh was one of considerable risk in all persons, but especially in persons of advancing years. He inquired whether we were not too much inclined to divide gangrene into groups, as though the cases were not, pathologically speaking, more or less alike. Did such great differences really exist? He well remembered Baron Larrey's proposal to operate in traumatic gangrene, thus entirely breaking through the traditions current at that time; nevertheless, he carried out the idea with considerable success, and this doctrine was followed for some time until Mr. Vincent showed that there were two forms of traumatic gangrene, and that the purely local form frequently recovered quite as well when left alone. Cases of gangrene, he said, were divisible into two classes, in which there were two factors—first, there was the constitutional element predisposing to the disease; and, secondly, there were local conditions of parts, of the vessels, and states of tissue. Gangrene only resulted when the two factors were both at work, though one or other might predominate. When a waggon passed over a limb, gangrene resulted because of the extent of the local injury. On the other hand, when a brewer's drayman, with diseased tissues, and soaked with alcohol, received an injury, if gangrene resulted, the cause was not so much the traumatism as the condition of the man's tissues. In the former case it



resulted from local changes; in the latter it was due to constitutional causes. The surgeon at the bedside should always have these factors present in his mind, for, when he had to do with constitutional gangrene, there was very little hope from any treatment, especially operation. It was necessary to determine whether the operation might not do more harm than the disease, for there was not only the local effect but also the shock to the system at large. Mr. Hutchinson's cases were not strictly cases of senile gangrene; they were a mixed lot of cases. From that list he thought we should not be warranted in advocating such an operation as amputation through the thigh as the usual surgical practice to be followed.

Mr. HUTCHINSON said he would reply first to the criticism that his cases were not all examples of true senile gangrene. With the exception of the first, which he had adduced simply in order to prove the advantages of amputation through the thigh over that through the leg, he must submit that they were all of the senile form. All the patients were between sixty and eighty excepting one; and although in that case the patient was only forty-eight, he was prematurely senile, his arteries being calcified in an extreme degree. The difficulties of defining senile gangrene must be admitted by all. The best definition which he could give of it was that which he had ventured in the paper, viz., gangrene due to calcification of the arteries. This form of gangrene always presented peculiarities, and was almost always progressive. He could not admit Mr. Savory's description of the type-form of senile gangrene as being that in which the limb dried up. In his experience, nine-tenths of the most definite cases of senile gangrene were moist, and not dry; whilst the most typical examples of mummified limbs were in association with other causes. Most certainly senile gangrene and dry gangrene were not synonymous terms. Nor could he admit that senile gangrene was always spontaneous, for not unfrequently some slight injury, attended by inflammation, appeared to act as its local and exciting cause. Although we were accustomed to classify gangrene as traumatic and spontaneous, it must never be forgotten that in almost all cases both constitutional and local influences had their share. In some cases the one predominated, and in others the other; but it could seldom or never be said that a gangrene was due wholly either to local or to constitutional influences. He was glad that Mr. Savory had so ably reminded them of the important step in surgical practice which was taken when M. Larrey recommended amputation in traumatic gangrene without waiting for a line of demarcation; he also felt indebted to Mr. Croft for suggesting that the present discussion should be widened so as to include other forms of gangrene than those purely senile. He felt sure that the line of practice which he had endeavoured to recommend would be found applicable to a larger class than those referred to in his paper. Having regard to the risks which all forms and conditions of gangrene necessarily entailed, of death from septicæmia when acute, and from pain and exhaustion when chronic, he believed that the rule of practice ought to be to amputate early in all cases, unless it was thought that by so doing more of the limb would be sacrificed than was necessary. He could think of no other consideration which would induce him to delay, for unquestionably the relief to the patient's pain and the removal of the danger of blood-poisoning were most definitely secured by amputation. With anæsthetics the operation caused no shock; with Esmarch's bandage there need be no loss of blood; and with Lister's dressings, or an equivalent, the wound ought to heal without fever and without suppuration. In two of the cases which he had narrated, in both of which the arteries were most extensively diseased (in one the patient being close upon eighty), the healing of the stump had been literally that referred to. In one of these the patient suffered from diabetes and albuminuria at the same time; yet he was now alive and well—three years after the amputation of his thigh. He fully accepted the criticism of Mr. Savory and Mr. Hulke, that his cases were not sufficiently numerous to warrant the formation of a new rule of practice. Certainly we must wait the result of further experience. Since he had written his paper, however, he had succeeded in finding, after much search, an important piece of additional statistical information. It consisted of a record by Mr. James, of Exeter, of no fewer than five cases of gangrene of the feet in old patients, in which amputation had been

performed. In some the amputation had been through the leg, and in others through the thigh. Although it would appear that in nearly all the stump had been for a time in an unhealthy condition, all five patients had ultimately recovered. In two, both limbs had, with an interval, been removed; and in one of these, Mr. James stated, he had himself seen the patient walking about on two wooden legs. These cases were all done before the introduction of antiseptics and of improved methods of dealing with arteries. Mr. Dix, of Hull, had also supplied him with the notes of a case in which he had amputated close below the knee, and the patient had recovered. With regard to the selection of the place of amputation, Mr. Hutchinson said that his own experience would lead him to hold strongly to the opinion expressed in his paper, that the lower third of the thigh was the safest place. He did not believe that the common dictum as to increase of risk as we ascend the limb was true. The lower third of the thigh offered several definite advantages: there was only one bone to cut, and often only a single artery to deal with. The arteries in the upper third of the leg were often more or less difficult to secure, and recurrent hæmorrhage was by no means uncommon. He had often seen amputation in the lower third of the thigh heal absolutely by first intention, whilst he had very seldom indeed witnessed this result in the upper third of the leg. These reasons, added to the yet more weighty one, which had been prominently mentioned in his paper, that the greater the distance from the gangrene the less was it likely to recur in the stump, led him to believe that future experience would demonstrate the superiority of the position recommended. In elderly persons the saving of six inches more or less in the length of the stump was not a matter of much importance; and it was certainly not worth while, with that object in view, to diminish the probability of rapid, painless recovery.

#### MEDIASTINAL EMPHYSEMA AND PNEUMOTHORAX IN CONNEXION WITH TRACHEOTOMY.

Dr. CHAMPNEYS contributed this paper, as an addendum to his third communication on Artificial Respiration in Stillborn Children. Since the publication of that paper there had been twenty-eight cases in which autopsy was made after tracheotomy. Of these fourteen were males and fourteen were females. In all cases the examination was made under water. In sixteen cases out of the twenty-eight (eight males and eight females) emphysema of the mediastinum was found. In two of these cases pneumothorax was also found. It was found in no case without emphysema of the mediastinum. The amount of emphysema of the mediastinum was greatest when pneumothorax existed also. In many, if not all cases, artificial respiration had been performed. It would be seen that the occurrence of emphysema was noted in five cases, or 6 per cent., of those which ended fatally after tracheotomy in twenty-one years before the publication of the paper above referred to, and in sixteen cases, or 57 per cent., in the two years following its publication. Pneumothorax was not noted in a single one of the eighty-two cases occurring in the twenty-one years previous to the paper, but had been noticed twice in twenty-eight cases occurring in the two years following its publication.

Dr. KINGSTON FOWLER said that for the last two years he had noted carefully the condition of the mediastinum in cases of death from diphtheria in the Middlesex Hospital; he had examined twenty cases, of which ten were males and ten females: the average age was four years and a half. In sixteen of these tracheotomy had been performed. Of these tracheotomies he had found emphysema in six cases, that is in 37.5 per cent. A high operation had been performed in thirteen cases, with emphysema in four, pneumothorax in two; in three the low operation had been done, and emphysema was found in two, pneumothorax in one. In three of the cases of emphysema following tracheotomy, artificial respiration was practised, while it was not necessary or practised in the remaining three cases. Artificial respiration had been done in two cases of tracheotomy in which emphysema was not found. He thought Dr. Champneys' explanation the correct one for these cases. On the other hand—and this was really the chief of what he had to say—a similar emphysematous condition had been found in one case, independent both of tracheotomy and of artificial respiration.

Dr. POWELL said that in seven cases dying after tracheotomy in the last two years, two cases of emphysema had



occurred. In one of the cases the tube had not been put into the trachea, but along its side. In another case, dying some hours after the operation, emphysema with collapse of lung was found. He could not see how we could escape this condition; for, the natural passages being closed, air found its way more easily into the mediastinum than into the lung, where, besides the other impediments, it had to overcome the natural elasticity of the lung. It had two important bearings on surgical practice—first, it suggested the high operation because the cervical fascia was less cut into; and, secondly, the danger of forcibly throwing back the head in order to make the trachea more prominent.

Dr. CHAMPNEYS replied that in his paper he had only referred to emphysema after tracheotomy. He had not left to conjecture the route followed by the air, but had demonstrated it by the experiments detailed in his paper. Forcing the tube by the side of the trachea, above all other things, tended to produce this inspiratory mediastinal emphysema. The dangerous period of the operation was that between the division of the deep cervical fascia and the efficient introduction of the tracheotomy-tube. Emphysema without tracheotomy is no doubt expiratory emphysema, alluded to but not further discussed in his paper. On this point he hoped to lay a paper before the Society in a few days. The observation of Dr. Douglas Powell, in which the air was auscultated in its course down the mediastinum, was of the greatest interest.

The meeting then adjourned.

## MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent examinations:—

### M.B. EXAMINATION—HONOURS.

#### MEDICINE.

*First Class.*—Sidney Harris Cox Martin, B.Sc. (Scholarship and Gold Medal), University College; Robert Fortescue Fox (Gold Medal), London Hospital; William Dobinson Halliburton, B.Sc., University College, and Edward Waldemar von Tunzelmann, University College, *equal*; John Howard Champ, Guy's Hospital.

*Second Class.*—Joseph Collier, Owens College and Manchester Royal Infirmary; Paul Frank Moline, University College, and Sidney Worthington, Guy's Hospital, *equal*; Robert Henry Scanes Spicer, B.Sc., St. Mary's Hospital; Frederick Foord Caiger, St. Thomas's Hospital, and William Heaton Horrocks, B.Sc., Owens College, *equal*; John Alfred Parry Price, Guy's Hospital; John Thomas Rogerson, Owens and University Colleges.

*Third Class.*—Walter Tyrrell Brooks, King's College; Edmund Wilkinson Roughton, St. Bartholomew's Hospital; Robert Black, London Hospital; John Metcalfe Beverley, Owens College and Manchester Royal Infirmary; Clement Bernard Voisey, Owens College, Manchester Royal Infirmary, and St. Mary's Hospital; Walter Hull, St. Thomas's Hospital, Richard Sisley, St. George's Hospital, and St. Clair Thomson, King's College, *equal*.

#### OBSTETRIC MEDICINE.

*First Class.*—Samuel Rabbeth (Scholarship and Gold Medal), King's College; Edmund Wilkinson Roughton (Gold Medal), St. Bartholomew's Hospital; John Howard Champ, Guy's Hospital.

*Second Class.*—St. Clair Thomson, King's College; Charles Montagu Handfield Jones, St. Mary's Hospital, and Richard Sisley, St. George's Hospital, *equal*; Wheelton Hind, Guy's Hospital.

*Third Class.*—Charles Frederic Bailey, St. Bartholomew's Hospital, and William Dobinson Halliburton, University College, *equal*; Frederick Foord Caiger, St. Thomas's Hospital; Thomas William Shore, B.Sc., St. Bartholomew's Hospital; Robert Fortescue Fox, London Hospital.

#### FORENSIC MEDICINE.

*First Class.*—Joseph Collier (Scholarship and Gold Medal), Owens College and Manchester Royal Infirmary; John Metcalfe Beverley (Gold Medal), Owens College and Manchester Royal Infirmary; John Alfred Parry Price, Guy's Hospital; James Henry Targett, Guy's Hospital; John Howard Champ, Guy's Hospital.

*Second Class.*—Robert Henry Scanes Spicer, St. Mary's Hospital; Sidney Worthington, Guy's Hospital; Wheelton Hind, Guy's Hospital.

*Third Class.*—Sidney Harris Cox Martin, University College; Charles Hartvig Louw Meyer, Guy's Hospital; Emily Tomlinson, London School of Medicine and Royal Free Hospital; Robert Fortescue Fox, London Hospital.

### B.S. EXAMINATION—PASS.

*First Division.*—Frederick Foord Caiger, St. Thomas's Hospital; Louis Albert Dunn, Guy's Hospital; Sidney Harris Cox Martin, B.Sc., University College; Charles Hartvig Louw Meyer, Guy's Hospital; Thomas Wilson, University College.

*Second Division.*—Gilbert Harry Barling, St. Bartholomew's Hospital and Birmingham; Wheelton Hind, Guy's Hospital; John Thomas Rogerson, Owens and University Colleges; Arthur Guy Salmon, St. Bartholomew's Hospital; Isaac Scarth, Owens College and London Hospital.

UNIVERSITY OF DURHAM.—MICHAELMAS TERM, 1883.—At the examination for degrees in Medicine and Surgery at the College of Medicine, Newcastle-upon-Tyne, the following satisfied the examiners:—

*Degree of Doctor in Medicine for Practitioners of Fifteen Years' standing.*—Thomas Michael Dolan, L.R.C.S., L.R.C.P. Edin.; Roderick Macdonald, L.R.C.P., L.R.C.S. Edin.

One candidate failed to satisfy the examiners.

*Degree of Doctor in Medicine.*—Henry Hinds Austen, M.B., M.R.C.S.; Frederick William East, M.B., L.R.C.P., M.R.C.S., L.S.A.; Charles Green, M.B., M.R.C.S., L.S.A.; Theodore Joseph Hudson, M.B., M.R.C.S.

One candidate failed to satisfy the examiners.

*Gold Medal for the Best Essay for the Year 1883.*—Frederick William East.

*Second Examination for the Degree of Bachelor in Medicine.*—First Class Honours: None. Second Class Honours (in order of merit): Walter Robert Awdry, M.R.C.S.; William Owen Travis, M.R.C.S.; Henry Milner Hughes; Edward Augustus Opie; Arthur Tresco Franklyn Brown, M.R.C.S., L.S.A.; Simpson Powell, M.R.C.S., L.S.A.; Henry Pottinger Keatinge, M.R.C.S. Pass List (in alphabetical order): Thomas Elisha Gordon; John Campion Grinling, M.R.C.S.; Robert Hardie; Septimus Lowes, L.R.C.S. Edin., L.S.A.; Herbert Ryding Mosse, M.R.C.S., L.S.A.; William Augustus Norry, M.R.C.S., L.S.A.; Thomas H. Openshaw, M.R.C.S.; J. Inglis Parsons; Alfred Robinson, M.R.C.S., L.S.A.; James Matthew Robson, B.A.; Charles Yaldwyn Shuter, M.R.C.S., L.S.A.; E. Walpole Simmons; Frederick Spicer; J. Henry Surtees Sumner, M.R.C.S., L.S.A.; Abelardo Triay; Arthur William Wheatley, M.R.C.S., L.S.A.

Two candidates were rejected.

*Degree of Master in Surgery.*—William Owen Travis, M.R.C.S.

Four candidates failed to satisfy the examiners.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having undergone the necessary examinations at the half-yearly meetings of the Court of Examiners on the 22nd, 23rd, and 24th ult., were reported to have acquitted themselves to the satisfaction of the Court, and at a meeting of the Council on the 13th inst. were admitted Fellows of the College, viz.:—

Marsh, Frank, L.S.A., Stafford, diploma of Membership dated April 24, 1877, student of King's College Hospital.

Morrison, J. T. J., B.A. and M.B. Cantab., Trinity-square, S.E., January 24, 1879, of the University of Cambridge.

Sheild, A. M., L.R.C.P. Lond., Cambridge, July 24, 1879, of the University of Cambridge.

Whitehouse, John, L.R.C.P. Edin., Smethwick, July 22, 1879, of the Galway School of Medicine.

Platt, W. B., M.D. Harvard, Baltimore, April 19, 1881, of the University of Harvard.

Rand, R. F., M.B. Edin., Constantinople, of the Edinburgh School.

Square, J. E., L.R.C.P. Lond., Plymouth, November 15, 1881, of St. Bartholomew's Hospital.

Power, D'Arcy, M.A. and M.B. Oxon., Great Cumberland-place, W., January 18, 1882, of St. Bartholomew's Hospital.

At the same meeting, Mr. D. D. Day, M.B. Lond. (diploma of Membership dated May 20, 1880), Norwich, of St. Bartholomew's Hospital, who passed the examination in May last, having reached the legal age of twenty-five years, was also admitted a Fellow; and Mr. E. T. D. Harrison, L.S.A., of Clifton, Bristol, was elected a Fellow, his diploma of membership bearing date July 15, 1842. One candidate passed who will receive his diploma when twenty-five years of age; and eight candidates having failed to acquit themselves to the satisfaction of the Court, were referred to their professional studies for twelve months. With these meetings the examinations for the present year were brought to a close.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 6:—

Bennett, Frank Albert, Queen's College, Birmingham.

Griffin, John Hubert, Woburn-place, W.C.

Llewellyn, John, Mount-place, London Hospital, E.

Parsons, Charles John, Muxter, near Newport, Salop.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Brooks, William Harrison, London Hospital.

Jaynes, Frederick John, Middlesex Hospital.

Naghten, Matthew Barnwell, Dublin School of Medicine.

## APPOINTMENTS.

CLEGG, JOSEPH, M.R.C.S., L.S.A.—Medical Officer of the Gartside-street Dispensary of the General Hospital for Children, Pendlebury, Manchester, *vice* T. C. Booth, resigned.

COCKEY, C. P., M.R.C.S.—House-Surgeon to the Female Lock Hospital, *vice* P. P. Whitecombe, M.R.C.S., L.S.A., resigned.

EVE, FREDERICK S., F.R.C.S.—Assistant-Surgeon to the Royal Free Hospital, in the place of the late James Shuter, F.R.C.S.

FOX, W. H. P., L.R.C.P., L.R.C.S.—House-Surgeon to the Wrexham Infirmary.

HODGES, R. W., L.R.C.P., L.A.H. Dub.—Honorary Medical Officer to the Fever Hospital, Queenstown, Cork.

JAKINS, P. S., M.R.C.S.—Surgeon to the Western Ophthalmic Hospital, Marylebone-road, *vice* W. Charnley, M.B., resigned.

STOKES, F. A., L.R.C.P., M.R.C.S.—Senior Resident Medical Officer to the Great Northern Hospital, *vice* Ashwell, resigned.



## DEATHS.

JOHNSTONE, T. B., M.D., Surgeon-General H.M. Indian Army (retired), at Ealing, W., on December 4.

## VACANCIES.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—Assistant Physician. Applications, accompanied by testimonials, to be forwarded to the office, 24, Finsbury-circus, E.C., on or before December 17. Particulars can be obtained from the medical officers or Secretary.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Salary £50 per annum, with board and lodging, etc., in the Hospital. Candidates must be registered under the Medical Act as being legally qualified to practise, accustomed to dispense medicines, unmarried, and not more than fifty years of age. Qualifications and testimonials to be sent to the Secretary on or before December 21. The election will take place on December 28.

NEWTON ABBOT RURAL, AND DAWLISH AND WOLBOROUGH URBAN SANITARY AUTHORITIES.—Medical Officer of Health. (For particulars see Advertisement.)

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—House-Physician.—Salary at the rate of £80 per annum, with residence, etc., and attendance. Candidates must be registered under the Medical Act, and must not engage in private practice. The appointment is tenable for six months. Applications and testimonials to be sent to the Secretary, from whom further particulars may be obtained, by December 18.

WESTBOURNE PROVIDENT DISPENSARY AND MATERNITY, 29, WESTBOURNE-PARK-CRESCENT, HARROW-ROAD, W.—Surgeon. Candidates to send their applications, with testimonials, to the Hon. Secretary at the Dispensary, on or before December 17.

## UNION AND PAROCHIAL MEDICAL SERVICE.

\* \* The area of each district is stated in acres. The population is computed according to the census of 1881.

## RESIGNATIONS.

Clutton Union.—The offices of Medical Officer for the Cameley District and the Workhouse are vacant, by the death of Mr. J. D. Perrin: area 3438; population 798; salary £14 per annum. Salary for Workhouse £60 per annum.

Ticehurst Union.—Mr. T. W. Popplewall has resigned the Wadhurst District: area 10,138; population 3216; salary £70 per annum.

## APPOINTMENTS.

Brackley Union.—Richard T. King, L.R.C.S. Ire., L.K. & Q.C.P. Ire., to the Second District.

Ely Union.—Wilfred Howard, M.R.C.S. Eng., L.R.C.P. Edin., to the Littleport District.

Hexham Union.—Robert James Foulis, L.R.C.S. Edin., L.R.C.P. Edin., to the Eastern Division of the Seventh District. George McCoull, M.R.C.S. Eng., L.R.C.P. Edin., to the Western Division of the Seventh District.

Madeley Union.—George D. Collins, M.R.C.S. Eng., L.S.A., to the Broseley District.

Sheffield Union.—Wm. Longbottom, L.R.C.S. Edin., L.R.C.P. Edin., as Resident Assistant Medical Officer of the Workhouse.

Wangford Union.—Robert H. Johnston, B.M., B.C. Trin. Coll. Dub., to the Bungay District.

Wantage Union.—Robert Main, L.R.C.P. Edin., L.R.C.S. Edin., to the Ilsey District.

Wolverhampton Union.—Alfred Freeman, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

JERVIS-STREET HOSPITAL, DUBLIN.—We understand that Dr. Christopher Gunn is likely to be appointed a Surgeon to this Hospital, in room of Mr. James Edward Kelly, who lately resigned in order to take up his residence at San Francisco. Dr. Gunn is a graduate in medicine, surgery, and midwifery of the Queen's University in Ireland, and Assistant-Physician to both the Mater Misericordiae and Cork-street Fever Hospitals. He was formerly Surgeon to the Frontier Police, Cape Colony, and served as Civil Surgeon during the Zulu campaign in 1879. As a student at the Carmichael College of Medicine he won the Mayne Scholarship and the Senior Prizes in Anatomy, Physiology, Medicine, Surgery, and Ophthalmic Surgery. The appointment is likely to be a very popular one.

THE LONDON HOSPITAL.—At a special meeting of the governors on the 5th inst., the draft of the Bill proposed to be introduced in the coming session of Parliament relative to the administration of the Hospital was unanimously confirmed. By it the governors seek power to enable them to grant a building lease of part of their land to any person willing to erect buildings for the accommodation of the hospital staff and students; to enable them to receive a limited number of paying patients; and to elect not more than two members of the consulting and senior medical staff as members of the House-Committee of the Hospital. The new rules with regard to out-patients will come in force at the beginning of the new year. Under these an inspector will be appointed, whose duty it will be to inquire into the circumstances of persons applying for medical assistance.

THE NEW CHILDREN'S HOSPITAL AT DUNDEE.—This Hospital, which has been erected in connexion with the Dundee Royal Infirmary, was opened on the 4th inst. by Sir John Ogilby. The building is situated on the ground floor of the east front of the Infirmary, is 100 ft. by 20 ft. in dimensions, and contains twenty-seven cots.

BIRMINGHAM CHILDREN'S HOSPITAL.—At a meeting of the Election Committee of this Hospital, Dr. Annie Clark was elected to fill one of the vacancies on the staff of acting physicians, in opposition to eight of the most eminent physicians of the town. Dr. Annie Clark has been for some years connected with hospital work in the town, and was elected by a large majority.

## NOTES, QUERIES, AND REPLIES.

*Be that questioneth much shall learn much.—Bacon.*

## THE ROGERS TESTIMONIAL.

The following is the seventh list of subscriptions:—C. Sedgwick, Esq., Hollingbourne, £1 1s.; A. E. Boulton, Esq., Horncastle, £1 1s.; Dr. Tyley Wedmore, £1 1s.; Jabez Hogg, Esq., Bedford-square, £1 1s.; R. R. Weil-Wisher, £1 1s.; Dr. Dutton, Sidlesham, 10s. 6d.; Dr. Grove, St. Ives, 10s.; Dr. Jardine, Capel, Surrey, 10s.; W. F. Brooks, Esq., Fareham, 7s. 6d.; W. E. Soffe, Esq., East Harling, 5s.; Dr. Harday, West Haddon, 5s.; Dr. C. J. Connon, Allendale, 5s.

Medical Charities.—The late Mr. J. K. Ford, solicitor, has just bequeathed £2000 to the Royal Portsmouth, Portsea, and Gosport Hospital.

Dr. A. C. Brownless.—The papers were only delivered last Thursday from the Colonial Office—therefore too late for the election this year; but they will be laid before the Council in January next.

London Charities.—The income of the metropolitan charities last year was £4,452,902. This total was made up, *inter alia*, as follows:—Seventeen general hospitals, £274,159; twenty-seven special hospitals, £109,042; twenty hospitals for women and children, £64,704; twenty-four charities for the blind, £55,872; three institutions for idiots, £55,724; eight convalescent hospitals, £53,078; forty-four convalescent institutions, £43,139; nine charities for incurables, £33,447; thirty-three general dispensaries, £25,206; eight charities for the deaf and dumb, £16,692; five institutions for surgical appliances, £14,135; thirty-two provident dispensaries, £9916; five ophthalmic hospitals, £9454; sixteen nursing institutions, £7400; five lying-in hospitals, £7235; three orthopaedic hospitals, £5541; four skin-diseases hospitals, £5092; and two institutions for vaccination, £2700.

Short-sightedness.—Dr. Cohn, who has summarised various statistics on the question of hereditary short-sightedness, which have from time to time been collected by Erisman, Scheiding, Pflüger, and other authorities on the subject, finds that the researches of the last-named writer resulted in the following facts being elucidated as to the percentage of short-sighted pupils:—Public schools—without predisposition, 8 per cent.; with predisposition, 19 per cent. Higher schools—without predisposition, 17 per cent.; with predisposition, 26 per cent. The difference of about 10 per cent. in favour of those children without an hereditary predisposition to short-sightedness is, according to Pflüger's opinion, a reliable basis of argument. At the same time, he asserts that this relatively low figure is arrived at after the necessary elimination of those cases where the predisposition has remained latent, and where it is of such a nature as only to become the source of ocular affection under circumstances of an unfavourable character.

Ophthalmic Hospital at Jerusalem.—Mr. Moore, Consul at Jerusalem, in an account of the Hospice and Ophthalmic Dispensary of the English Order of St. John of Jerusalem which has been established in that city, says:—"A hospital for the treatment of diseases of the eye meets one of the most urgent wants of Jerusalem and the country around; for while there happily exist several charitable institutions for the general relief of sickness, to such an extent are affections of the eye prevalent, that a special hospital for such cases has been a long-standing desideratum, and will prove an inestimable boon to the population. A very eligible plot of land near the city, of about six acres in extent, has been secured. On the land, moreover, stands a substantial two-storeyed house, which, with some not very considerable repairs and alterations now going forward, will make an admirable hospital. The medical officers sent out by the Order commenced to receive and treat patients in December last. The work has thus completed six months of existence. Dr. Waddell reports that during that period the total number of patients received has been 1592, while the total attendance—that is to say, of patients who received advice and medicine—has been 6318. On many days the attendance has reached the large number of 140, the average daily applications having been about eighty. Just at present, Dr. Waddell states, the results cannot be exactly shown, by reason that a great many of the patients are still under treatment, but he estimates that at least 1000 cures have been effected."



## COMMUNICATIONS have been received from—

Dr. EXCHAQUET, Bex; Dr. ALEXANDER, Liverpool; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE, London; Dr. A. SMART, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE REGISTRAR OF THE UNIVERSITY OF DURHAM, Newcastle-on-Tyne; Mr. E. BELLAMY, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Dr. GEORGE JOHNSON, F.R.S., London; THE SECRETARY OF THE CHINESE MARITIME CUSTOMS, London; THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS, London; THE SECRETARY OF THE LONDON FEVER HOSPITAL, London; Mr. J. T. W. BACOT, Seaton, Devon; Dr. TIRARD, London; Dr. A. HARVEY, London; Mr. A. S. KENNY, London; Mr. T. M. STONE, Wimbledon; Dr. OSLAR, Montreal, Canada; Mr. F. GALTON, London; Dr. MACLAGAN, London; Dr. J. W. MOORE, Dublin; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; Dr. W. BLYTH, London; Dr. SCHWALBE, Magdeburg; THE REGISTRAR-GENERAL FOR QUEENSLAND, Brisbane; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. J. WICKHAM BARNES, London; Dr. F. A. MAHOMED, London; THE SECRETARY OF THE UNIVERSITY OF LONDON; THE EDITOR OF THE "SANITARY ENGINEER," London; Mr. JONATHAN HUTCHINSON, F.R.S., London.

## BOOKS, ETC., RECEIVED—

On Photographing the Larynx, by Thomas R. French, M.D., Brooklyn—The Diseases of Children, by Armand Semple, B.A., M.B., M.R.C.P.—Diseases of the Bladder, etc., by Frederick James Gant, F.R.C.S.—The Transactions of the Edinburgh Obstetrical Society—Poisons: their Effects and Detection, by Alexander Wynter Blyth, M.R.C.S., F.C.S., etc.—The Possibility of Abnormal Ocular Conditions through the Sympathetic System impairing the Function of the Uterus, by W. S. Little, A.M., M.D. Philadelphia—The Life and Work of St. Paul, by F. W. Farrar, D.D., part xxiii.—Notes on Books, by Messrs. Longman and Co.—Note sur Vingt-deux Operations de Goitre—Report on the Health, Sanitary Condition, etc., of Kensington from November 4 to December 1—Changes in New England Population, by Nathan Allen, M.D., LL.D.—The Law of Human Increase, by Nathan Allen, M.D., LL.D.

## PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Indian Medical Gazette—Australian Medical Journal—Ophthalmic Review—Practitioner—Analyst—El Ensayo Medico—Revue Sanitaire—Society.

## APPOINTMENTS FOR THE WEEK.

## December 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

## 17. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m. SOCIETY OF ARTS, 8 p.m. Mr. W. Mattieu Williams, "On the Scientific Basis of Cookery." (Cantor Lectures—III.)

MEDICAL SOCIETY OF LONDON, 8½ p.m. Sir Andrew Clark, "On Catheter-Fever."

## 18. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Dr. Charlewood Turner—Quiet Necrosis. Dr. Wickham Legg—Melanosis after Melanotic Sarcoma of the Choroid. Mr. Godlee—Three Cases of Tubercular Disease of the Tongue (living). Mr. Symonds—Tubercular Ulceration of the Tongue. Mr. Jessett—Tubercular Ulceration of the Tongue. Dr. Goodhart—Tubercular Ulcers of the Base of the Epiglottis (card). Dr. Norman Moore—Three Examples of Pancreatic Disease. Mr. Bowlby—Dermoid Cyst of the Finger.

## 19. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

## 20. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

## 21. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

## VITAL STATISTICS OF LONDON.

Week ending Saturday, December 8, 1883.

## BIRTHS.

Births of Boys, 1237; Girls, 1109; Total, 2346.

Corrected weekly average in the 10 years 1873-82, 2640.2.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	819	809	1628
Weekly average of the ten years 1873-82, } corrected to increased population ..	932.0	911.6	1843.6
Deaths of people aged 80 and upwards ...	...	...	63

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669633	...	5	4	1	12	...	5	2	2
North ...	905947	2	4	8	7	9	...	13	...	3
Central ...	232238	...	1	2	3	4	...	3	...	1
East ...	692738	...	5	23	1	5	...	4	...	3
South ...	1265927	...	29	16	11	13	...	1	...	5
Total ...	3816483	2	44	53	23	43	...	26	2	14

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	29.986 in.
Mean temperature ...	...	37.8°
Highest point of thermometer ...	...	53.2°
Lowest point of thermometer ...	...	28.4°
Mean dew-point temperature ...	...	32.1°
General direction of wind ...	N.N.W., N., & S.W.	
Whole amount of rain in the week ...	...	0.05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 8, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Dec. 8.	Deaths Registered during the week ending Dec. 8.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values		Weekly Mean of Daily Mean Values.	In Inches.
London ... ..	3955814	2346	1628	21.5	45.7	28.4	37.8	3.23	0.05	0.13
Brighton ... ..	111262	54	44	20.6	52.0	26.8	37.7	3.17	0.34	0.86
Portsmouth ...	131478	38	42	16.7	...	...	...	...	...	...
Norwich ... ..	89612	53	35	20.4	...	...	...	...	...	...
Plymouth ... ..	74977	41	31	21.6	53.9	28.0	41.0	5.00	0.12	0.30
Bristol ... ..	212779	130	60	19.6	53.0	26.4	37.7	3.17	0.01	0.03
Wolverhampton .	77557	54	38	25.6	51.9	23.3	35.1	1.73	0.23	0.58
Birmingham ...	414846	269	173	21.8	...	...	...	...	...	...
Leicester ... ..	129483	90	53	21.4	51.0	29.2	36.9	2.72	0.24	0.61
Nottingham ...	199349	164	77	20.2	51.8	28.2	37.6	3.12	0.12	0.30
Derby ... ..	85574	63	34	20.7	...	...	...	...	...	...
Birkenhead ...	88700	61	45	26.5	...	...	...	...	...	...
Liverpool ... ..	566753	357	256	23.6	49.8	30.5	39.7	4.28	0.00	0.00
Bolton ... ..	107862	72	51	24.7	49.0	25.2	36.4	2.44	0.86	2.18
Manchester ...	339252	229	170	26.1	...	...	...	...	...	...
Salford ... ..	190465	112	63	17.3	...	...	...	...	...	...
Oldham ... ..	119071	91	32	14.0	...	...	...	...	...	...
Blackburn ...	108460	63	35	16.8	...	...	...	...	...	...
Preston ... ..	98564	50	62	32.8	...	...	...	...	...	...
Huddersfield ...	84701	66	39	24.0	...	...	...	...	...	...
Halifax ... ..	75591	35	38	26.2	...	...	...	...	...	...
Bradford ... ..	204807	91	65	16.6	50.0	29.0	38.7	3.72	0.01	0.03
Leeds ... ..	321611	198	151	24.5	50.0	30.0	39.5	4.17	0.10	0.25
Sheffield ... ..	295497	210	112	19.8	51.0	31.5	38.6	3.67	0.10	0.25
Hull ... ..	176296	126	68	20.1	48.0	29.0	36.7	2.61	0.40	1.02
Sunderland ...	121117	89	50	21.5	...	...	...	...	...	...
Newcastle ...	149464	85	67	23.4	...	...	...	...	...	...
Cardiff ... ..	90033	78	29	16.8	...	...	...	...	...	...
For 28 towns ...	5620975	5365	3568	21.6	53.9	23.3	38.0	3.33	0.20	0.51
Edinburgh ... ..	235946	120	81	17.9	46.7	28.8	38.3	3.50	0.00	0.00
Glasgow ... ..	515589	396	232	23.5	53.2	27.0	39.7	4.28	0.00	0.00
Dublin ... ..	349.85	185	223	33.3	51.9	25.4	37.4	3.00	0.24	0.61

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.99 in.; the lowest reading was 29.42 in. on Monday evening, and the highest 30.38 in. on Friday evening.



## SOME OBSERVATIONS ON "CATHETER FEVER."

By SIR ANDREW CLARK, Bart., M.D., F.R.C.P.,  
Physician to the London Hospital; President of the Clinical Society.

SOMEWHERE about the year 1850, one of the medical officers of Haslar Hospital, between fifty and sixty years of age, of a nervous constitution, but apparently in robust health, requested me to examine his urine. Accordingly I submitted it to as careful an examination as I was then competent to make, and all that I could find out against it was that it was too great in quantity, too low in density, and too pale in colour. He then informed me that he had trouble with his bladder, that he meant to consult Sir Benjamin Brodie, and that he wished me to accompany him for that purpose to London. Sir Benjamin examined his patient, drew off a rather large quantity of urine from the bladder, told him that he was suffering from simple enlargement of the prostate, prescribed the regular use of a catheter, and, with a few general cautions against a careless diet and exposure to cold, he quickly but kindly dismissed us both. We returned to Haslar. For about a week the patient was free from local discomfort, and without complaint of his general health. Then he began to feel and to look ill. He complained of malaise, of weakness, of general pains. He lost his appetite, was tormented by thirst, had nausea, became feverish, took to bed, got daily worse, and, notwithstanding the efforts of his colleagues, who could not agree as to the nature of his malady, he died in three or four weeks from the beginning of his illness. No post-mortem examination was made.

The case here so imperfectly narrated made upon my mind an impression which has never been effaced. But until about the year 1865 I saw no other exactly resembling it. In that year I was summoned by Mr. Peter Marshall to visit a gentleman suffering from fever. Certainly he was in what is vaguely called the typhoid state. Between fifty and sixty years of age, he was lying on his back in bed, apparently in a state of great prostration. The face was faintly yellowish and mottled, the lips were dry, the pupils dilated, and the breath foetid. The tongue was small, brownish-red, dry, and tremulous. There was complete anorexia. The bowels were imperfectly relieved. The urine, habitually removed by the catheter, was low in density and acid, deposited on standing a little muco-pus, and contained a small quantity of albumen. The heart's action was quick and frequent, the pulse small and compressible. The bases of both lungs were congested. The skin, sub-icteric and for the most part rough and dry, was here and there, chiefly about the hands and feet, bedewed with a watery sweat. The acuteness of all the special senses was blunted; and the patient, dull, heavy, and indifferent, could yet be roused to speak and to answer questions put to him. The temperature of the body at the time of examination in the afternoon was about 103°.

The story of this case resembled the story of the first case narrated. The patient, supposed to be healthy, but suffering from an affection of the bladder, was, a few weeks before my visit, placed upon the daily use of the catheter, did well for a week, then became ill, and fell steadily downwards into his present condition.

Neither Mr. Marshall nor I ventured to form a definite opinion of the nature of the patient's malady; but, remembering the case at Haslar, I suggested that the fever, which we agreed was not a specific one, had originated out of the conditions begotten by the entrance upon catheter-life. I saw the patient only once. The remedies proposed—food, alcohol, quinine, and aperients—were unavailing, and he died within a week of our consultation.

With great difficulty, permission was obtained to make a post-mortem examination; and, although it was made with both care and interest, nothing definite was found outside the bladder, and nothing in it sufficient to necessitate or account for death. The prostate was much enlarged. The bladder was dilated and thickened; viewed from the inside it was trabecular and very slightly saccular. The mucous lining was congested, at parts eroded, and everywhere coated with a greyish-white stinking mucus. There was nothing to be detected in the ureters and kidneys; and neither Mr. Marshall nor I could say anything better of the cause of death than that it was due to irritative fever.

The study of this case gave birth to the opinion, now a firm belief, that the entrance upon catheter-life occasionally gives rise to a pernicious fever, which in the majority of instances destroys life without the intervention of any sensible structural change sufficient to account for death.

Since 1866 every year has added to my experience of such cases, and for over ten years at least I have been in the habit of mentioning them to surgeons with whom I have had the privilege of consulting. From Sir James Paget and from Sir Henry Thompson, whom I have often met in cases of the kind, I have received at various times much important information. But as I have received from neither of these distinguished surgeons explanations completely in harmony with my own experience of such cases as the one just narrated, and as fresh information might be now in their possession, or in the possession of others, I ventured upon a recent occasion at the Clinical Society to mention the subject in the way that it occupied my thoughts, and to invite from my surgical contemporaries their latest experiences and conclusions concerning it.

My remarks finding a place in the medical journals, and being by them widely disseminated, have elicited from practical surgeons a variety of interesting and instructive communications concerning the nature and causes of the fever which occasionally follows casual or habitual catheterisation. Nevertheless, as the exact scope and character of those remarks has been—doubtless through my own fault—misapprehended: and as the subject is of such importance as not only to justify, but to require, that statements made respecting it should be clear as well as accurate: I gladly comply with the requests conveyed to me from various quarters to reopen the subject.

Now, it is not my intention, on the present occasion, to narrate a series of cases and build thereon a dissertation on Catheter Fever. I have not at my command the materials necessary for such an undertaking; and if I had, devoid as I am of the enlightenment and strength which flow out of the surgical instincts begotten of long surgical experience, I would not attempt it. I have seen many cases of catheter fever, but I have never had charge of one. I have visited my cases only occasionally in consultation with other practitioners, and almost always my colleagues have been too busy to keep and furnish me with minute and continuous records. Indeed, from the present temper of the public mind, the fear which patients have of being made the subjects of experiment, and the demands thoughtlessly made upon a practitioner's time, it is becoming increasingly difficult to keep careful clinical records for oneself; and the public, in its vicious stupidity, is thus hindering us from keeping it so well as we might otherwise have the power to do. But although my records of individual cases of Catheter Fever are thus necessarily incomplete, I venture to think that, both by study of their silent characteristics and by the questioning of those in charge of the cases, I have learned enough of their nature and importance to justify me in making certain propositions and in asking certain questions concerning this Catheter Fever.

The statements which I propose making about this fever will be most conveniently embodied in a series of propositions. But, before submitting them to your consideration and criticism, it will be necessary, in order to obtain a clear and comprehensive understanding of their underlying subject to discover the origin and follow the historical development of those ideas which have shaped the theories of surgeons and determined their lines of practice.(a)

(a) I have here enumerated only those writers whose observations have visibly influenced the current of theory and practice prevailing at the time. A catena of authorities, prepared by Dr. Delépine, to whose care and diligence and ability I owe the greater part of my references, has been hung upon the wall at the end of the room.



In 1800 it was known, but not distinctly expressed, that surgical interference with the urethra and bladder was sometimes, in certain circumstances, followed by irritative fever. It was not, however, until 1810 that Moffat, as quoted by Velpeau, described a case of chronic stricture of the urethra in which simple catheterisation was followed by rigors, irregular fever, purulent arthritis, and death.

In 1832, ideas concerning the causal relationship of catheterism to consecutive fever found form and expression in the writings and teachings of Brodie, of Velpeau, and of Civiale.

Brodie distinctly and even emphatically mentions the dangers of catheterism, and describes, as occasionally occurring in consequence of it, paroxysms of irregular fever like ague, leading sometimes to prolonged debility, sometimes to a continued fever with rheumatic pains, and sometimes even to mania. He further says that in such cases death may follow, but he cites no case of its actual occurrence.

Velpeau enters more minutely into the nature and relations of the fever, and contributes several new ideas to the development of the subject. He alleges that in some persons perfectly healthy, not malarious, and not exposed to its influences, even easy catheterism may develop a consecutive and continuous fever, and that this fever has five varieties. In the first it consists of a single paroxysm of fever, ending in malaise and debility, with recovery in a few days. The second consists of recurring paroxysms, issuing in continued fever, and often fatal. The third consists of inflammatory fever arising out of nephritis, phlebitis, or other local inflammation. The fourth consists of fever associated with purulent arthritis. The fifth consists of a rapid succession of violent paroxysms of fever, speedily ending in collapse and death. Velpeau then points out that in the second and fifth varieties he has never found present at the autopsy any adequate structural cause of death; and in these cases he is disposed to regard the origin of the fever as caused by the reabsorption of vitiated urinary secretions or by some fault in the elimination of the urinary constituents.<sup>(b)</sup> But on this and on similar points of pathogenesis he is both obscure and vague.

Civiale, whose great work is disfigured by passionate claims of priority in this matter (of which claims no proof is given), and by the satirical invectives which he launches against the juster and greater Velpeau, gives a full and admirable description of this Catheter Fever. But whilst admitting that the fever is due sometimes to the urethra and sometimes to the bladder, and asserting that the fever of the one differs essentially from the fever of the other, he almost angrily minimises the effects of surgical interference, and, it would seem, with a judgment disturbed by emotion, contends that in most cases the fever has existed before the use of the catheter, or that it is due to a nephritis. But in a later part of the work, marked by greater sobriety of language and a more judicial tone of argument (page 612 of the 1860 edition), he distinctly qualifies these strong assertions, and says that the cause of the fever is vague and uncertain, and that in speaking of its nature one can only guess.

In 1858, M. Phillips contributed some fresh ideas concerning the condition under which this fever is developed. Describing the fever, and in the main following the classification proposed by Velpeau, *the source whence almost all subsequent writers have derived their inspiration and sometimes their ideas*, he asserts, first, that the simplest as well as the severest catheterism, with the largest or the smallest instrument, may originate the fever; second, that *unless the affection of the urinary passages lies behind the bulb the fever does not follow*; and third, that the predisposition to the fever does not lie in the state of the nervous system, but in the existence of certain diatheses, and in chronic disorders of the general health.

In 1859, Marx, in a monograph of remarkable merit, reviews the state of the question, and contributes to its elucidation and development certain important facts and ideas expressed with clearness and used with judicial ability. He adopts a classification of the varieties of Catheter Fever similar to that given by Velpeau, recognises uncomplicated cases issuing in death without any discernible structural lesion outside the bladder, asserts that it may occur in persons in perfect health, and that in them and in others

not healthy it may follow upon any state of the urinary organs requiring the passage of a catheter. Finally, he declares the fever to be positively uræmic, and ascribes its origin to insufficiency of the kidneys arising out of functional or structural disease.

In this work, perhaps for the first time, the causal relationship of Catheterism to Catheter Fever is most clearly and comprehensively set forth, and a logical, coherent, and ingenious, if not accurate, theory of the genesis of the fever is propounded.

In 1867 the practical aspects of this subject were very greatly advanced by the publication of the now classical work of Sir Henry Thompson on the Urinary Organs. In this work, characterised by care, experience, strength, method, clearness, and precision, he mentions the perils of catheterism, gives instructions for averting them, notices the occurrence in a few exceptional cases of a low irritative fever, and quotes Sir Benjamin Brodie to show that in a few weeks it might terminate in death. Furthermore, he says—and herein he differs from every one of his predecessors in this line of inquiry—that in all such cases there will be found old-standing pyelitis with dilatation and marked degeneration of the renal structures, and that in no circumstances could such patients long survive.

Looking at the unrivalled experience of this distinguished surgeon, and remembering how often I have consulted with him about cases such as I am now considering, I confess to a feeling of disappointment that he has not made time to give to the profession a more serious and adequate account of this important question.

In 1867 also your President, Sir Joseph Fayrer, gave an admirable account of the varieties of Catheter Fever, and declared that in India at least the predisposition lay either in the malarious state or in advanced disease of the kidneys, that it began in reflex disorder of the nervous system, that it was not in the ordinary sense toxæmic, that it might destroy life without the production of visible structural change outside the urethra or bladder, and that catheterism alone, without injury or even irritation, was sufficient to set in movement the febrile phenomena.

In 1868, Sir James Paget took notice of this fever, and made some very important additions to our knowledge of the conditions out of which it is developed. He says that when the urine is of low density and abundant, when the patient is gouty, dyspeptic, or otherwise chronically disordered, when having a stricture it becomes irritable and weakens the health, or when being old something has happened to cause depression, catheterism will be dangerous and may originate a fever ending in death. He leans to the opinion that renal degeneration is the cause of the fever, but admits that often the apparent cause is inadequate. We have here mentioned for the first time, as I think, in a clear and impressive manner the important fact also set forth by myself, that a low density of urine (without, in my opinion, adequate increase of quantity) indicates the existence of conditions which render surgical interference of every kind and degree more perilous to life. Finally, this distinguished surgeon estimates the mortality in such cases at from 3 to 4 per cent., and notices that the consequences of death are sometimes aggravated by its unexpected occurrence.

In 1871, Banks, of Liverpool, described the effects of catheterism under the title of urethral fever, of which he made three varieties. The first consists of rigor, malaise, and speedy restoration to health. The second, of rigor, malaise, prostration, followed in a few days by death. The third, of rigor with shock, destroying the patient in the course of a single day. Admitting that renal disease predisposes to such attacks, he denies that they are due to suppression of urine, and he ascribes them to shocks of greater or of less severity propagated through the nervous system.

In 1873, Malherbe, in his work on the Fever of Diseases of the Urinary Passages, presents a fairly just compendium of the knowledge of the subject current at the time of publication, adds certain important cases of his own, illustrates them by a number of instructive temperature-charts, avers that the fever may arise without local irritation, describes it as uræmic, alleges that the predisposition to it is renal, and, whilst admitting that in some cases no structural lesions are found after death, he holds to the hypothesis that the origin of the fever is in some sort of renal imperfection.

In 1877, Mr. Marcus Beck contributed to the further

(b) Dr. Matthews Duncan tells me that his mind was seriously impressed with the importance of this subject by Velpeau's lectures.



elucidation of this subject two important papers bearing the marks of practical knowledge, accuracy of observation, and careful thought. Describing the fever in which death may occur in from nine to forty-eight hours, he holds that the predisposition to it lies in chronic disorders of the health, renal imperfections, and age; that the exciting cause is probably mechanical irritation of the cerebro-spinal and sympathetic system reflected upon the kidney, and bringing about structural or other insufficiency thereof. Beck gives no description of the more prolonged forms of fever, but holds apparently to the uræmic origin of all of them.

It will be seen from this rough historical retrospect that catheterism is occasionally followed by a fever which has received the names of urethral fever, urethro-vesical fever, urinary fever, catheter fever, uræmic fever, and the like; that in some cases this fever is dependent upon or associated with "purulent arthritis," ordinary pyæmia, surgical kidney, or interstitial nephritis; and that on a small but notable percentage of cases no adequate structural cause of death can be found. Now, it was of this last variety of Catheter Fever that I spoke at the Clinical Society, and it was of this variety that I made, or meant to make, the following propositions:—

1. That about middle life, in men apparently healthy or with no discoverable evidence of disease except a low density of urine, the commencement of habitual catheterism is sometimes followed by a form of remittent fever which often ends in death; and that for the fatal issue of most cases belonging to this variety of Catheter Fever no adequate structural explanation can be found.

2. That although it is well known that in persons affected with renal disease or with chronic gout or with general textural degenerations the beginning of catheter-life is from the possible occurrence of secondary fever attended with serious peril to life, the fact that this fever may arise in seemingly good health and, without the mediation of any visible structural lesion, issue in death is not well known, and has, as respects England, no adequate place in the surgical treatment or in the surgical teaching of the time. (c)

3. That this fever is neither distinctly uræmic nor distinctly pyæmic; that, although having some of the characters of each, it has the essential characters of neither; that probably it begins by a reflex disturbance of the nervous system, affecting in the first instance the general metabolism, and in the second the secretory organs, beginning with the kidneys; that the effects upon the kidneys consist either in such structural alterations as are undiscernible by any known instruments of research, or, as is much more probable, in dynamic alterations of the condition of blood supplied to the kidneys and essential to the elaborative action of its secretory cells; and that the effects of nervous disturbance are speedily reinforced by septic absorption.

4. That there are great grounds for believing that a more complete knowledge of this fever, of the conditions of its origin, maintenance, increase, and issues, might lead to some material diminution of its mortality; and that even now, by treating as a serious matter the entrance upon catheter-life, by enforcing the precautions set forth by Thompson, by care in the use of food and stimulants, by quiet and warmth, by diaphoretics and laxatives, by the free admission of opium, and perhaps by the cautious use of antiseptic injections as employed by Lister and Harrison, lives might be saved which without such precautions are lost.

Of these propositions, the one most open to attack, and sure to be assailed, is the third, wherein it is asserted that this form of Catheter Fever is not distinctly and exclusively uræmic; for it has come to pass that the uræmic theory first advanced, although imperfectly, by Velpeau and Civiale, and clearly enunciated by Marx and Malherbe, is now accepted and taught, with one distinguished exception in Mr. Savory, by almost every writer and teacher of the present time. I ground my main opposition to the exclusively uræmic theory of this variety of Catheter Fever upon the fact that its phenomena in their appearance, assemblage, progression, and issues are different from those of the uræmia of recognised

renal disease. The duration of fully developed Catheter Fever is at once longer and shorter than that of uræmia: longer than that of acute uræmia, and wanting its headache, its lesions of sensation, its changes in the urine, its convulsions, and its speedy and complete coma: shorter than that of chronic uræmia, and wanting its characteristic breath, its vomitings, its attacks of dyspnoea and palpitation, its recurring headaches, its defects of sight, its neuralgic and rheumatic pains, its painful nervousness, its fleeting paralyses, its itching skin, and its low temperatures; sometimes unaffected even by intercurrent inflammations. Furthermore, the urine of this variety of Catheter Fever is always loaded with micro-organisms of various forms, and although its percentage of urea may be lowered, and although it may contain albumen in greater quantity than can be accounted for by the presence of pus, it does not necessarily deposit tube-casts, and it is capable of complete, or of almost complete, restoration to its normal state. Again, whilst chronic uræmia invariably issues in death, Catheter Fever sometimes issues in complete restoration to health. (d)

Lastly, if a low density of urine signifies not merely renal inadequacy, which may remain for an indefinite time compatible with good health, but also the existence of a real interstitial nephritis, how comes it about that patients recovering from this fever may remain well for years? and why is it that, when catheter-life has been entered and satisfactorily established, the peril of Catheter Fever has almost completely disappeared?

Such, then, are the main conclusions which I have drawn from my interrupted and fragmentary studies of Catheter Fever. I know that they are incomplete, and I fear that they may be inaccurate. But however this may be, I submit them to your consideration, and I console myself for my deficiencies with the reflection that they may call forth the ripened experience of practical surgeons, who in this matter, furnished with surer instincts and a more practised judgment, may be able not only to correct me where I am in error, and to confirm me where I have caught the truth, but also to supply us with that fuller knowledge which now we need and seek.

## NERVE-STRETCHING FOR SCIATICA.

By H. B. DONKIN, M.B., F.R.C.P.,  
Physician to Westminster Hospital.

THE three cases subjoined may be of present interest, as showing the probable good results of the modern treatment by nerve-stretching in this obstinate malady.

*Case 1.*—M. K., a laundress, aged forty-four; constantly standing on wet floors. For five months before admission under my care at Westminster Hospital on June 27, 1883, she had suffered from severe pain in lower part of back, right hip, and down the right leg as far as the toes. The pain had been constant, but worse at intervals. She was treated for a month with many remedies—purgatives, narcotics, blistering, guaiacum, iodide of potassium, colchicum, alkalies, and many other drugs, and numerous liniments—with no relief whatever, except when under the full influence of morphia. On July 27 my colleague, Mr. Macnamara, at my request, cut down on the sciatic nerve, making an incision over four inches long, beginning at the lower border of the gluteus maximus. The nerve was lifted up from its bed, and vigorously pulled by Mr. Macnamara, myself, and others, several times. The wound rapidly healed by first intention, the temperature never rising to 100°, and, with the exception of a little pain over the wound itself, the patient made no complaint, going out well at the end of August. Since that time she has been ascertained to have been quite free from pain, and is so now.

*Case 2.*—A. Y., also a laundress, aged forty-seven, came under my care on July 18, suffering from well-marked sciatica on the left side, of six months' duration. The pain in this instance was first noticed in the region of the ankle, and spread upwards. This patient suffered as continuously as Case 1, though the pain was perhaps not quite so severe.

(c) Of course this adequate knowledge may be found in special monographs and papers, but these are the luxury of the few, and familiar for the most part only to specialists. But such knowledge should be fully and clearly imported into our common text-books, that so it may become accessible and useful to the whole body of the profession.

(d) Quite recently I attended, with my friend Mr. Ransford, a case of Catheter Fever which was also seen by Sir William Gull, Sir James Paget, Sir Henry Thompson, and Mr. Marshall, and which ended in complete recovery.



She was treated in a similar manner at first, but no relief was obtained. On October 3, Mr. Macnamara operated by incision, as in the former case, and the nerve was repeatedly and vigorously stretched. In this case there was suppuration, and the temperature, at first rising to 103.8°, did not reach the normal till October 25. Pain in the wound was complained of after the operation, but none along the course of the nerve. Three or four days after the operation, pain began at the back of the leg and in the ankle-joint. This was apparently relieved by the application of belladonna, but returned, till on October 23 the wound burst open and discharged two ounces of pus. Healing then gradually progressed, and no pain was complained of except in the neighbourhood of the ankle-joint. On November 24 the patient was strong enough to walk about, and quite free from pain; and she left the hospital on December 1, perfectly well, remaining so up till the present time. From the day of operation she had no pain over the course of the sciatic nerve.

*Case 3.*—This case was under the care entirely of my colleague, Mr. Richard Davy, who kindly permits me to publish it with mine. Charles C., a labourer, aged forty-one, much exposed to cold and wet, was admitted on January 27, 1883, suffering from sciatica of three weeks' duration. He had had one previous attack lasting a few days in the summer of 1882, which got well without treatment. Three days after admission, Mr. Davy performed a similar operation to those recorded above, though in this case the nerve was *continuously* kept on the stretch for two or three minutes. For four nights the patient complained of much pain in the wound. On February 2 the sutures were removed, and a large quantity of pus escaped. The discharge continued free for some days. The patient left the hospital on February 24, with the wound healed, and quite free from pain. He has had no return up to the present time.

The prompt recourse to the treatment by stretching in Case 3 gives it perhaps less comparative value as illustrating the probable beneficial effect of this operation in sciatica. But whether the explanation given by Prof. Marshall in his recent Bradshawe Lecture of the *modus operandi* of this remedy be true or not, or whatever the explanation may be, it must be admitted that the three cases here recorded help to corroborate the belief that something is to be hoped from nerve-stretching in sciatica, and that the operation need not be dreaded.

## CASES IN SURGERY.

By W. D. WILKES, M.R.C.S.,  
Surgeon to the Salisbury Infirmary.

### *Case 1.*—Congenital Malformation—Urethra opening into Vagina.

A PRIVATE patient lately died in her ninetieth year; she had been a widow forty-two years, and had never borne a child.

Of late years I ascertained that she had frequently difficulty in passing urine. With this exception, and an accident in 1880 (broken ribs and contusions of face and neck), she had always been well. In October, 1881, I was consulted for cystitis and retention of urine. On examination I found a congenital absence of the orifice of the urethra in front at its usual place, and only a very contracted orifice of the vagina, barely admitting a probe, through which the urine could pass at all.

Under chloroform I enlarged this opening, and afterwards small phosphatic calculi began to pass at intervals, formed in the bladder, forced by it into the vagina, and escaping from it with the urine. The calculi generally required removal, and at times quite stopped the orifice, and had to be broken up before extraction. The urine always contained blood, often in clots, and much muco-purulent matter. No probing of the vagina could detect the opening of the urethra into its roof, and the bladder could not be sounded. Neither sponge-tents nor drainage-tube could be borne in the vagina, and there was a refusal to submit to any kind of operation, such as an exploratory lithotomy, or introduction of a drainage-tube from the front, for the cystitis and more easy escape of urine. Her sufferings when wanting to empty the

bladder were very great—every hour or so during the night, but less often in the daytime. She also refused all medicines, and sedatives had to be given unknown to her.

I was allowed after her death to make a local examination. The bladder, thickened, contracted, and very vascular, contained fragments of phosphatic calculi, blood-stained and mixed with muco-pus. A probe could be passed from the base of the bladder into the vagina, and outwards through its orifice, showing a congenital vesico-vaginal urethra. This opened into the upper wall of the vagina about one inch and a half from its orifice. The uterus was atrophied, and had a globular deposit of bone at the side of its anterior wall. Two or three similar deposits were forming at the fundus. The vagina was much dilated, forming as it were a second bladder; its orifice was much contracted, and had become an organic stricture, similar to that in a male urethra.

I have never been able to meet with a description of such malformation. I suppose that until the vaginal orifice contracted no suspicion of it existed, as there had never previously been any examination of the parts. I hardly know what surgery could have done. It is doubtful whether it would have been possible to elose what was the natural urethra, and establish an artificial one in its usual place. The bone pipe of an ounce ball-syringe was passed daily or oftener, and the vagina syringed out. This kept the orifice from further contraction, and favoured the escape of the calculi. Had the patient allowed one, the best treatment would have been a free dilatation of the orifice to admit the finger, when the situation of the urethra might have been detected, and the opinion formed during her life confirmed; whilst the urine would have had an easy escape, and much suffering been relieved.

### *Case 2.*—Fracture of Inner Condyle of Femur and Vertical Dislocation of Patella.

On October 30, 1882, an old gentleman, who said he was eighty-one, was brought into the Salisbury Infirmary with the following accident:—He fell off the platform of the Porton station of the South-Western Railway, mistaking his way in the evening.

There was a bruise on the outer side of the front of the right knee. The knee-cap stuck out vertically, with its anterior surface facing outwards, and wedged tightly into the interval of the condyles of the femur. The outline of the limb was in-kneed, whilst the other was straight and well grown.

When he was put under ether, I found that the joint could be readily flexed from its partly bent position. There was a fracture at the lower end of the femur, apparently through the condyles, as they seemed separated, and were probably split into the joint. No extension, flexion, abduction, or adduction influenced the position of the knee-cap; neither did strong pressure on the cap itself have any influence. So I had to content myself with extending the knee to the utmost, placing the limb on a McIntyre's splint, and slinging it in a Salter's cradle.

I forgot to add that there was no apparent effusion into the joint. After a week or so, the knee-cap, of its own accord, was found in its natural position. The joint did not swell much, and was kept covered with hot spirit lotion, which was very grateful to the patient. He did not have much pain. Pressure on the knee-cap gave a grating sensation, as if that bone itself was fractured.

In about a month the limb was taken out of the McIntyre, and put up in a straight position with a plaster-of-Paris bandage, which remained on for three or four weeks; then it was taken off, and a flannel roller applied. The outer condyle seemed prominent, and the reason will be explained presently.

He got up for a week or more, and then a sore formed on the heel, like a broken chilblain, and the foot and leg swelled. He was confined to bed again; sloughing of the heel followed, which separated after poulticing, and he seemed very comfortable, the swelling of the leg subsiding. He took his food well, and on the evening of January 7, 1883, was cheery. During the night, about 4 a.m. of the 8th, he died suddenly, without any pain, from failure of the heart's action.

An examination of the knee, on the 10th, revealed a healthy joint, with the internal condyle fractured from the femur as if it had been chopped off, from the front, between the condyles; fibrous union had taken place with the shaft



of the bone, and it was displaced about one-sixth of an inch from the front of the femur, giving an explanation of the prominence of the external condyle, which was continuous with the shaft of the bone. The patella had not been fractured, and there was a tendency to in-knee from the want of support of the internal lateral ligament attached to the fractured condyle, or rather, perhaps, of the condyle itself.

The rare occurrence of this form of dislocation of the knee-cap has induced me to publish this case, the more so as I was enabled to make a post-mortem examination. It may have happened in this manner: A sudden fall on a hard substance, with a bent knee, and probably way on the body at the time, may cause severe contusion only, or direct fracture of the knee-cap; but if this bone be a strong one, it may resist breaking, and communicate the impulse to the inner condyle of the femur, and fracture it. I attended such a case on September 1 last, where a gentleman, about sixty-five, turning round suddenly at the railway station, stepped on a travelling-bag which had just been put down without his seeing it, and he fell violently on the asphalt. Visiting him about an hour afterwards, I found the inner condyle fractured, with much effusion into the joint. Further, if the condyle be detached, the violent contraction of the quadriceps occurring at the time would evert the bone, from loss of the support, from the inner condyle to the corresponding surface of the cap, and dislocation be the result. If the edge of the cap were retained in the fissure, it would explain the difficulty of reducing the dislocation. Vertical dislocation of the patella may also occur without any fracture, probably from an irregular contraction of the quadriceps, aided by the direction of the injury—as in the case reported by Dr. Griffiths in the *Lancet* of May 12 last, when, as soon as the muscle relaxed from the patient being placed fully under the influence of ether, the dislocation was easily reduced.

*Case 3.—Compound Colles's Fracture—Traumatic Gangrene—Amputation of Arm, etc.*

Frederick S., a ploughboy, twelve years old, fell from a tree, about twenty-five feet, whilst bird's-nesting at Winterslow, on June 17, 1883.

He was brought to the Infirmary at midnight, suffering from a compound Colles's fracture of the right forearm. The radius had separated from its epiphysis, which remained attached to the carpus. The upper fractured end protruded about three-quarters of an inch through the skin by a transverse wound about an inch and a half in length: the ulna was fractured about an inch and a half higher up. There was no bleeding. An attempt was made to reduce the fractured radius, under chloroform, unsuccessfully. By sawing off the projecting end of the bone level with the skin, the fracture was easily reduced. An outside splint was put on, and the wound treated with boracic lint.

On the 18th the arm was quiet. The next day he had great pain, and the bandages, etc., were removed and the wound poulticed.

On the morning of the 20th the parts had become much swollen, and traumatic gangrene had set in. This rapidly extended during the day, and it was decided, in consultation with my colleagues, to amputate the arm. The consent of the boy's relations could not be obtained until 5 p.m.; and by this time the discolouration and swelling of the skin had extended up to the shoulder and slightly on to the chest; yet there was a faint line of demarcation about the insertion of the deltoid, and I resolved to chance high amputation of the arm by the circular method.

I succeeded in controlling the artery in the axilla by a screw-pad tourniquet with split leather straps. With two lateral incisions in the skin after the circle was made, I was enabled to turn back a double square flap and easily finish the operation. A large drainage-tube was placed across the bottom of the stump after all the vessels were secured; the flaps were sutured, dressed with carbolic warm water, and covered with wool. Ether was inhaled during the operation, and the boy had a beef-tea and brandy enema.

His pulse was very thready for some twenty-four hours. He had beef-tea enemata, port wine, champagne, bark, and ammonia, and a hypodermic of morphia.

He was very restless for the next day or two, with occasional delirium, but his pulse improved. He had incessant craving for cold water, which he was freely indulged in.

On the 23rd the tube was removed, and on the 24th he seemed out of danger; appetite had returned, the stump looked wonderfully well, and you would not have suspected that there had been gangrene as the cause of the amputation.

From this time his progress was good. A ring of bone exfoliated. He was made an out-patient on September 8, and discharged cured in October.

On examining the limb after the operation, the epiphysis of the radius was found attached to the carpus, and a comminuted fracture of the ulna an inch and a half above that of the radius. The whole of the flesh and integuments were foetid to a degree, gas and serum freely escaping, the hand and parts about the injury black, and the muscles of the forearm sodden and dull red in colour. The upper arm exhibited all the changing colours of advancing mortification.

As the lower epiphysis of the radius is united to the shaft about the twentieth year, it is more likely to separate than fracture of the radius to occur in an accident which would produce the ordinary Colles's fracture in an adult.

It has been recommended, in cases of rapidly extending gangrene, to amputate at the shoulder-joint as a greater measure of safety; but then it is a more serious operation than that of the arm, and although the skin may show all the signs of gangrene, yet, if absolute death of the integument has not occurred, it has a power, when the effusion can freely drain away, of recovering itself. So it was in this boy's case. The flaps did not slough at all, and he recovered with a useful stump, such as an artificial limb could be fitted to, and better than any contrivance could have commanded had the arm been removed at the joint.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.

#### DERMOID OVARIAN TUMOURS.

(Under the care of Mr. KNOWSLEY THORNTON.)

(Concluded from page 236.)

#### Case 11 (No. 201 in Ovariectomy Tables—not yet published).

A. S., single, aged twenty-one; healthy-looking, and with full colour. Increase of size noticed four years ago. Paternal grandmother died of cancer of breast, and two aunts on same side of phthisis. Menstruation began at the age of fourteen, and was profuse and regular. About the time that she first noticed the tumour, a chill during menstruation stopped the catamenia for some months, and since the return the flow has been scanty.

Ovariectomy, July 31, 1880. A large biecystic tumour of left ovary, with a multilocular mass at its base, and in one of the cysts of this mass a quantity of hair and fat.

I noted the right ovary as also rather large.

The patient left the hospital well on the seventeenth day.

#### Case 12 (No. 219 in Ovariectomy Tables—not yet published).

M. T., single, aged forty-eight; very emaciated; abdomen enormously distended. Had only noticed increase of size for three years and a half. Catamenia regular up to nine months back, when they ceased altogether. Family history unimportant.

Ovariectomy, December 8, 1880. An enormous multilocular tumour of the left ovary, weighing in all seventy pounds. One of the secondary cysts was full of bone, hair, and fat.

The right ovary had a thin-walled cyst in it; but it was very adherent, and I thought it better to leave it, as the patient was much exhausted with a formidable operation. It has given no trouble up to the present time. The patient made a rapid recovery.

#### Case 13 (No. 232 in Ovariectomy Tables—not yet published).

A. H., married, aged thirty-three; mother of six children (the last four were all born after she was under my observation with ovarian tumour). The tumour was first diagnosed in 1874; it never increased much, if at all, in size, and her husband would not hear of operation. During the last pregnancy she suffered very severely with constant



pain in and about the tumour, and at each month had a sharp feverish attack, and it was determined that if she got safely through this confinement the tumour should be removed. She herself knew that there was a swelling in the abdomen when her first child was born.

I performed ovariectomy on April 2, 1881, and found a dermoid tumour with a false pedicle attached to the omentum, and a band connecting it with the right ovary. On the left side of the uterus was a stump, from which the tumour had evidently twisted off, the Fallopian tube between the end of the stump and the uterus being cystic. The right ovary was cystic, and was also removed.

The tumour was full of fat and hair. I have no report of the right ovary. The patient made a good recovery.

*Case 14* (No. 235 in Ovariectomy Tables—not yet published).

A little American girl of seven years old. A private case, and published separately in the *British Medical Journal*.

*Case 15* (No. 267 in Ovariectomy Tables—not yet published).

W. J. R., single, aged twenty-one; a full-coloured blonde. Menstrual history unimportant. Family history unimportant. First noticed pain in right side in August, 1880, and then found a small lump there; it has grown rapidly since.

I performed ovariectomy on December 7, 1881, and removed a very solid dermoid tumour of the right ovary. It was completely bedded in adherent omentum and intestines, though there was no history of pain or of inflammatory attacks. Every cyst that I opened contained dermoid structures, and in some there were large masses of bone, with teeth, etc.

The patient made a good recovery. I have not heard of her since, but think I should have done so had she not remained well.

*Case 16* (No. 289 in Ovariectomy Tables—not yet published).

A young lady, aged twenty-seven; single. Not a hospital case.

*Case 17* (No. 297 in Ovariectomy Tables—not yet published).

L. M., single, aged forty-one. Menstruation is and always has been regular. Family history unimportant. First noticed a small hard swelling of the size of a duck's egg in the left iliac region about five years ago.

I performed ovariectomy on May 3, 1882, and removed a dermoid tumour from the right side, which was bedded in adhesions to uterus, intestines, etc. There was no pedicle, the stump from which the tumour had twisted off being plainly visible. The left ovary was as large as an orange, and was also removed. The right-side tumour was distended with hair and thick putty-like material; the left also contained hair and fat. The patient made a good recovery.

This completes the dermoid cases in another (third) series of one hundred ovariectomies. In the former two hundred there were two malignant cases and ten simple, or 6 per cent. In this series there are two malignant and seven simple, or 9 per cent. This is a very much larger proportion than that found by other operators. Sir Spencer Wells only met with twenty-two dermoid tumours in one thousand operations; and Peaslee gives the percentage as one and a half to two. I think the apparent increase may be partly due to the fact that we now operate on smaller tumours, and in more doubtful cases than formerly. To both classes of cases the dermoid tumours decidedly belong. They are often small, and of slow and uncertain growth, and they are much more liable to be mistaken for uterine tumours. Certain it is that the larger percentage is fully maintained in my fourth hundred, now nearly complete.

The small size, slow growth, and greater comparative density of the dermoid tumours explain certain facts in connexion with this variety of the ovarian cysts. 1. They are specially liable to twisting of the pedicle, even to complete twisting off, with adhesion to other surfaces. 2. They are specially liable to inflame and adhere to neighbouring organs, and to suppurate and form fistulous openings into the bladder or intestine, or externally.

In fully a third of my cases the second ovary was also found to contain a dermoid cyst or cysts; and I noted in some cases in which I did not remove the second ovary that it was enlarged, and I think very likely would also have been found to contain small dermoid cysts. From my present experience I shall be more inclined to remove the

second ovary in all cases which show any increase of its size.

The single and married are nearly of equal numbers, and the majority of the latter have been mothers.

The tumours are most commonly diagnosed about the middle period of menstrual life; i.e., when the ovaries are in their most robust reproductive state. Tait, in his recent work, puts the age at from seventeen to twenty-one, but this is fully ten years too early. He also states that "dermoid cysts are generally unilocular"; the exact reverse of this is my experience,—they are nearly all multilocular. Ritchie advanced the theory that the dermoid ovarian cysts are due to parthenogenesis; and Tait supports and amplifies this view, believing that they all arise from an ovum, and in foetal or early infantile life. I think it is possible that they may take their origin in ova which do not escape from the follicles, and hence have a perverted nutrition and growth; just as adenoid, carcinomatous, and sarcomatous tumours have their origin in perverted nutrition and growth of other cellular elements of the ovary. I cannot, however, find any evidence to support the theory that they begin always in foetal or infantile ovaries, and usually remain quiescent till after puberty. The early stage of disease so often found in the second ovary seems opposed to this view; and I have recently operated upon a single woman of sixty-two, fifteen years after her menopause, whose whole menstrual history is against such a theory. In her case also the second ovary was multicystic, and one of the cysts contained dermoid structures. If these dermoid cysts had been present all through life, why should they have waited fifteen years after the menopause, and then developed so unequally in the two sides? It seems to me much more probable, from a careful consideration of my own cases and of those recorded by others, that the ova-cells partake of the stimulus (whatever it be) which sets up tumour-growth; and the varying age at which we find dermoid cysts, from childhood to old age, supports this view. They are commonest, as I have shown, during the most active period of a woman's menstrual life, but in this they only follow the rule of the ovarian tumours. Dermoid cysts are common enough in other parts of the body, and also in the male, where they cannot originate from ova. It is true that some of those in the ovary have been found to contain striped muscle, brain, and other structures not found in dermoid cysts in other situations; but if we allow for these exceptional cases an origin from the ovum, I see no use in straining this to make it account for all, when similar cysts are found where such an origin is impossible. One practical point of much importance I would urge with regard to dermoid ovarian tumours: let them, however small, be removed directly they are diagnosed; for, in spite of their slow growth and periods of apparent quiescence, they are more dangerous to their hosts than the ordinary tumours, from their proneness to inflame or suppurate, or twist, or cause perforation of the walls of neighbouring organs.

I shall hope to continue the series at some future time, as it is only by the records of a large number of cases that fallacies, such as those as to the age of the patients and the unilocular character of the cysts, can be corrected. It is easy from a small experience to make things fit a theory; much more difficult if our experience is large.

**LEPROSY IN NEW BRUNSWICK.**—In a communication to the Canada Medical Association, Dr. Graham gave an account of a visit which he had paid to Tracadie, on the Gulf of St. Lawrence, where leprosy has prevailed since 1820, and where a lazaret has been established for the isolation and treatment of lepers. From the investigation which he made he came to these conclusions:—1. The origin and early spread of the disease cannot be explained on the theory of hereditary transmission, although this may in part account for its further propagation. 2. Although endemic influences, such as climate, mode of life, etc., may be strong predisposing elements, they are in no case the sole cause of the disease. 3. Leprosy in Tracadie was imported from without, and, finding there favourable conditions, was propagated from one person to another by contagion. 4. Leprosy may be regarded as one of the least contagious of diseases, and one which only spreads under a combination of favouring circumstances such as were found in Tracadie. —*Canada Medical Journal*, October.



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# Medical Times and Gazette.

SATURDAY, DECEMBER 22, 1883.

## NERVE-STRETCHING.

MR. MARSHALL'S admirable lecture at the Royal College of Surgeons has drawn very prominent attention to this subject as a surgical means of treating certain diseases of the nervous system which are not amenable to other forms of treatment. Nerve-stretching, though it dates back to the year 1869, is still quite in its infancy; and if Mr. Marshall has not added much to our knowledge of the subject, his selection of it for his Bradshawe Lecture cannot fail to direct that special attention to it, which, by securing for it a more careful and systematic study than it has hitherto received, will be productive of great gain, and for which Mr. Marshall will earn the thanks of the profession. In his sketch of the history and development of nerve-stretching as a surgical operation, it was not a little strange that neither von Nussbaum's nor Billroth's name was mentioned, and that their now historical cases were not even alluded to. It is, however, well known that nerve-stretching was first carried out with intent by Prof. von Nussbaum in the year 1872. Billroth, indeed, in the year 1869 had laid bare the sciatic nerve, not with any intention of stretching it, but for the purpose of examining it. In doing so, he detached it from its connexions, and did not hesitate to finger it freely in his search after some morbid condition, or for some tangible mechanical pressure which might be interfering with its function. But the first application of nerve-stretching as a definite surgical operation is undoubtedly due to von Nussbaum. His first case was a soldier, who had received a blow from the butt end of a musket over the region of his brachial plexus at the memorable battle at Bazeilles, on September 1, 1870. This was followed by extravasation of blood, and an abscess, which had to be opened; it discharged, and shortly

healed up. Subsequently, violent and painful spasm of the upper limb of the same side set in, and resisted every kind of treatment for many months. It was thought possible that cicatricial thickening of the nerve-sheaths of the four lower cervical nerves might be the cause of the affection, and von Nussbaum determined to cut down on the nerves, thoroughly expose them, and break down any adhesions which he might find. This was accordingly done. The ulnar nerve was stretched at the elbow, and all the nerves as they surround the artery in the axilla, as well as the main trunks above the clavicle. Von Nussbaum certainly left nothing to chance, for, besides attacking the nerves at the three places named, he followed them with his finger up to their exit from the spinal column. The spasms never returned, and from the first the man was able to perform voluntary movements with the fingers and hand, such as previously were impossible. The patient, in fact, recovered perfectly, and remained quite free from any return of spasm or pain. Such was the introduction of nerve-stretching as a surgical operation.

The first accurate account of the subject in all its bearings, clinical as well as experimental, was written by Dr. Paul Vogt, Professor of Surgery at Greifswald. A full analysis of this pamphlet was published in this journal in September, 1877, and was the earliest account of the subject which appeared in this country. Mr. Marshall would have found a great deal of interesting matter in Vogt's book, together with a fuller account of the early cases than is contained in Stintzing's work, to which the lecturer admitted that he was largely indebted, and a study of which he recommended to his audience. Both authors, however, had the advantage of having studied and worked out their subject under the eyes of von Nussbaum in the Munich General Hospital, and both works are worthy of careful study.

The operation has by this time become fully recognised, and has been done for all sorts and conditions of nerve-disease. Fortunately—thanks largely to antiseptics—it is a most simple one, and almost devoid of danger. Von Nussbaum's patient quickly got over the immediate effects of his operation, although he was very ill at the time it was undertaken; but he subsequently nearly succumbed to phlegmonous erysipelas—a complication which is hardly ever heard of nowadays. There is the further advantage that the proceeding in no way aggravates the disease, even in the cases in which it fails to be of service. This harmlessness is a fortunate circumstance, and serves to justify the many tentative operations that have been undertaken. Originally, nerve-stretching was tried only as a last resource in all-but hopeless cases, and in the full expectation that some gross lesion would be discovered, which might be removable. It now seems to be done not in hopeless cases only, but comparatively early, and in any form of nerve-disease which is not amenable to ordinary therapeutic treatment. It is even done, occasionally, in cases in which the pathological anatomy, being well defined, absolutely precludes any commensurate benefit, as, for instance, in infantile paralysis. But in all hopeless cases, in which there is no recognised pathological anatomy, and which have resisted the usual therapeutic measures, such an operation as this may be tried; for, as already stated, if carefully performed, the operation entails no serious after-consequences, either local or general. There are limits, however, beyond which tentative surgery should not proceed. A perusal of Mr. Marshall's lecture will suffice to show how little we understand the *modus operandi* of nerve-stretching. His suggestion that it acts in some way on the *nervi nervorum* is pure hypothesis. There is, in the first instance, no proof that any such nerves exist; and, secondly, no evidence was



brought forward in support of such a theory—the learned lecturer simply stating that he “imagined them to exist.” It was unfortunate that Mr. Marshall could not have brought forward a series of personally observed cases. He would hardly have been so enthusiastic in his favourable anticipations of what the operation may accomplish. For the present our knowledge of the *initial* changes in the nervous system which lead to disease is not sufficiently accurate; neither is the *rationale* of nerve-stretching sufficiently definite to lead us to look for the brilliant results which were once anticipated from it.

### PHYSIOLOGY IN THE SCHOOLROOM.

EVERY doctor who is not an educational Tory has probably taken it as an axiom that the best way to make people good citizens and sensible patients is to give them a knowledge of their own bodies and of the laws that govern them. So much of the difficulty of dealing with the laity, both rich and poor, is traceable to their ignorance of the laws of life, the haziness of their notions as to the true relation of cause and effect, their inability to distinguish between true knowledge and quack assumption, their credulity, their superstition, and their love of mystery, that many of us assume that nothing is required but sound general physiological teaching to make this the best possible of worlds, and to give the doctor the place and power in it that he deserves. And if this knowledge is to be brought within the range of all, then it follows that we cannot begin to teach it at too early an age; for, amongst the poorer classes, if the boy is not taught to “know himself” in the schoolroom, he will infallibly remain ignorant of that interesting object of study for the rest of his mortal days. It is on this principle that we have been going more or less for the last thirty years. In March, 1853, the Privy Council issued a document, signed by sixty-six of the leading medical men of the day, in which it was strongly maintained that “it would greatly tend to prevent sickness, and to promote soundness of body and mind, were the elements of Physiology, in its application to the preservation of Health, made a part of general education.” And the signatories of the circular further stated that they were “convinced that such instruction could be made most interesting to the young, and might be communicated to them with the utmost facility and propriety in the ordinary schools, by properly instructed schoolmasters.” Thus heartily recommended by the medical profession to the public, Physiology has up to the present time assumed a constantly increasing importance in general education, and has, in fact, been gladly welcomed as a subject of teaching everywhere except in those strongholds of lost causes—the public schools. That it has not done all that was promised of it—that, in spite of all instruction in the laws of life and health, the masses still overwhelm us with their incurable dirtiness, stupidity, and superstition—may be readily admitted; but this has been reasonably put down to the inefficiency and limited extension of physiological teaching. Considering the quality of the physiological instruction that was until within quite recent times thought sufficient for the medical student, it was hardly to be expected that we could all at once turn out a legion of schoolmasters fitted for the difficult task of making Physiology intelligible and interesting to children. A century would not be too long a period to give to such a revolutionary experiment in our methods of education. One was perhaps prepared to meet with disappointment, difficulty, opposition, and revolt on the part of the laity, who are generally considered to be prejudiced against anyone’s prying into their insides; but the ordinary medical mind scarcely expected to find the first sign of dissent from the

new doctrine coming from the physiologists themselves. The unforeseen, however, has happened, as usual, and henceforth the directors of education in this country will have to reckon with a certain amount of incredulity amongst physiological experts as to their science being a fit subject for teaching “in the vulgar tongue.”

Early in the present year, Dr. Allchin, who has had exceptional opportunities of forming an opinion on the subject, read a paper before the College of Preceptors, in which he boldly argued that physiology is not an appropriate subject to teach in elementary schools. “It is,” he contended, “too uncertain and too extensive, too much involved in many other branches of science, to allow of its being attempted by a mind hitherto untutored, and any attempt to the contrary can and does only result in cramming a mass of ill-assorted facts and ideas into the mind, thereby training neither observation nor reasoning. Even from the point of view of the direct value of the knowledge gained, its advantage is *more than questionable*, and finally experience has decided against it.” This bold and at first sight paradoxical statement has not been allowed to pass unchallenged, and, at the November meeting of the College of Preceptors, Mr. John Angell, the Science Master at the Manchester Grammar School, read a paper, in which an attempt was made to controvert Dr. Allchin’s arguments. Dr. Allchin does not appear to have been present himself to answer his opponent; but he found an able ally in Dr. J. F. Payne, who presided on the occasion, and stated that his own experience as an examiner had led him to exactly the same conclusions as Dr. Allchin. For the purpose of clearness it may be well to give a brief comparative summary of the opposed views.

Physiology is *not* adapted for the teaching of the young—

1. Because it involves a knowledge of so many other sciences. There is scarcely a branch of experimental science that is not involved in the explanation of physiological problems.

2. Because it is an *inexact* science.

3. Because it will result in the cramming of a mass of ill-assorted facts and ideas into the mind, thereby training neither observation nor reasoning.

4. Because its study results in cramming into the individual a mass of names and phrases, the meaning of which he fails to understand, since they are too complex and abstruse; and as for its use in preparing the mind for sanitary truths, experience tells us that the

Physiology is adapted for the teaching of the young—

1. Because the fact that it is based on all the experimental sciences, and not on one or two only, affords the strongest reason why it should be the best elementary science subject for the commencement of the systematic cultivation and development of the intelligent faculties. It is an error to assume that there are a number of sciences. There is but one science—Natural Science.

2. It is not *inexact* in relation to that with which it has to deal, and its study, by teaching the general conformity to law in all that is comprised within our living and acting world, tends to general *exactness* of thought in things mental and moral as well as physical. Quantitatively, it may be *inexact*, but the love of quantitative subjects is a late development.

3. There is no Science subject in which the teaching of youth can be made more *sound and real*. Ask a boy the why and wherefore of his sensations and experiences—why he gets out of breath, for instance, if he runs fast,—and he immediately becomes interested. This, on the part of the pupil, means roused intellect, quickened observation, quickened attention, greater reasoning power, greater concentration, and more retentive memory.

4. The terms of Physiology—a comparatively modern science—are built of definite roots, have a definite meaning, and are profitable for a boy to learn; and as for its practical usefulness, the experience of the Manchester Sanitary Association is that the chief difficulty in



best patients are those who do as they are told without question.

5. It is a rapidly progressing science.

6. Its facts are relatively few, its hypotheses many.

the way of extending sanitary improvements into the houses of the lower class lies in their present state of ignorance, which the Association is trying to overcome by instituting lectures on physiological and sanitary subjects.

5. It is not more rapidly progressing than chemistry, electricity, or magnetism.

6. The greater part of Science has been built up of provisional theories, and it is an error to think that such cannot be used for educational purposes.

In the above summary we do not profess to have given more than the merest skeleton of the arguments, and we must refer those who wish for further information to Mr. Angell's able paper, published in the *Educational Times* for December 1. In such a discussion, of course, the opinion of a physiological expert deserves every respect, but we are inclined to think that experts, as a class, are very often apt to attach too much importance to a full knowledge of their special subject, and too little importance to a superficial knowledge of it. But, as one of the speakers at the discussion pointed out, it is impossible to give a *perfect* knowledge in any subject to children, and he might have extended his dictum to many grown-up people. Few medical men, probably, have a knowledge of physiology that would come up to Dr. Allchin's standard, but he would hardly argue that they would, like his patients, do better without it. It has even been said that the teaching of Physiology to medical students has been overdone of late, and that where taught by experts, who are removed from its practical application to Medicine, it is less usefully taught than where the lecturer is a practising physician. That consideration, however, though it would tell as a strong argument against the proposed federation of medical schools, has but a remote connexion with the present question. But there is another point which might with advantage have been brought into greater prominence in the discussion of Dr. Allchin's views, and that is the much greater opportunity of training the observation offered by Physiology than by most other sciences. The material of elementary physiological instruction is always at hand, and it lends itself admirably to observation and description by the pupil. It is organised, and therefore more complex than minerals or electrical apparatus or geometrical figures, and it thus appeals to a larger range of sense-perceptions. Faulty observation is at the root of most fallacies, and we contend that a boy would cultivate his faculties much more usefully by looking at his tongue in a mirror and describing it in words, than by learning the dates of all the kings that ever lived. Compared with the history and geography that have hitherto formed the staple of elementary education, the broad outlines of physiology can hardly be called complex; and, if properly taught, could, we believe, be made to interest children more than the most thrilling and best-remembered facts in the history-primer. The king who died of eating lampreys owes his immortality to his physiological and not to his historical associations.

#### GRESHAM COLLEGE.

GRESHAM COLLEGE from its foundation has been insecure. It has been submitted to the test of a Royal Commission, and found wanting. The end is delayed, but only for the time being. Excesses in its prime and decay of nature render its continuance in its present form futile. The change to a larger, better sphere of work must come; and while awaiting this change with some impatience, it may be of interest to review its life now, since there is no know-

ing for how long a true obituary notice might be deferred. Gresham College, in the present and in the past, has many points in common with the "Heathen Chinee." The lectures may fairly be termed "bland," the modern observance of some niceties of ancient ritual is "childlike," and the history of the institution affords ample illustration of "ways that are dark." Sir Thomas Gresham's objects were clear enough. Having no son, he desired to perpetuate his name honourably in the cause of education—education for the great city from which he had largely derived his wealth. He ignored all promises previously made to Cambridge University, and shortly before his death drew up a will leaving his house, which occupied a large area opening on to Bishopsgate-street, as the residence for seven lecturers. They were to be paid £50 a year each out of revenues derived from rents in the Royal Exchange. They were to be graduates, unmarried or widowers, and the subjects of their lectures were broadly defined. As Prof. Ray Lankester recently reminded us, Gresham did his best to preserve his foundation by solemnly cursing those of his trustees who might divert his property from his original intentions. Business-man as he was, he lost sight of much in framing this will. He overlooked the fact that in the coming materialistic age a posthumous curse would not count for much when weighed against present pecuniary benefits. He did not take into account the possibility of his bequest increasing in value so largely as almost to invite legal spoliation. He simply left it all to be held in trust by his widow, and to be applied as above stated, on her demise, by the Corporation of the City of London and the Mercers' Company.

Some forms of philanthropy excite opposition, especially from those who deem their private interests attacked for the good of the greater number. Lady Gresham, after her husband's death in 1579, made repeated attempts to alter the terms of the will. She had disputes with Sir Henry Nevill, necessitating "an Act for the stablishynge of an agrement betwene them." In 1592 she made another petition to Parliament; and, in a document opposing this successfully, we find the Lord Mayor and Aldermen so confident of their own honesty of purpose that they hopefully state that they "do assuredly persuade themselves that there shall not at any time be any cause given of their parts to complain against them," and accordingly we find that when the property came into their hands they procured a patent from the Crown in 1614 to hold for ever the Royal Exchange and Sir Thomas Gresham's "mansion house" upon the terms expressed in the will of the donor. In 1596 they had appealed to the Universities for advice, and had elected three professors from each University, Queen Elizabeth herself nominating as the seventh professor a graduate of both Universities. In January, 1597, a memorandum was drawn up, defining the duties of the several professors, and establishing the rule that for "more order and comeliness sake the said lecturers shall read their lectures in their hoods, according to their degrees in the Universities." The great bell which summoned merchants to 'Change was to be rung to give notice of the lecture. The lecture was to be delivered in Latin for the benefit of the "diverse strangers of foreign countries," but since the greatest part of the "auditorie" would probably consist of "such citizens and other, as have small knowledge or none at all of the Latine tongue," the substance of the lecture was to be repeated later in the day in English. The English version of the Divinity lecture was to be a "revised version," as we find that "the rest is to be referred to the discretion of the reader, who is of small judgment if he cannot discern what is meet to be omitted and delivered openly in his English lectures." The lecturer on Physic was directed to read



"first physiologie, then pathologie, and lastly, therapeutice, whereby the body of the said art may be better imprinted by good method in the studious auditors."

For some sixty years from its foundation all went well, the College forming a focus of philosophic and scientific meetings. Then came troubles. Soldiers were quartered in the College, and the professors were scattered. They reassembled in 1660, but only shortly after to have their work again interrupted by the plague and the great fire. The next disturbance came from the trustees. The value of the large area on which the College stood had increased very much, the building itself had become dilapidated, so that in 1701 the trustees applied for powers to "make some improvement of Sir Thomas Gresham's gifts, the better to enable them to pay his uses." Sixteen years later, a similar but less circumstantial petition was put forward; and finally, in 1760, they boldly sought to pass an Act to empower them to pull down the College and almshouses, merely undertaking to "erect and provide a proper and convenient room" for the public reading of the lectures. The final death-blow to Gresham's wishes was given in 1768, when the trustees obtained an Act to enable them to make over to the Crown the ground on which the College stood for a perpetual rent of £500 per annum. To quiet opposition, the lecturers were now allowed to marry, their remuneration was raised from £50 to £100, and the lectures were delivered in an out-of-the-way corner of the Royal Exchange. From Burgon's book (to which we are indebted for many of the above facts) we learn that the "City and Mercers' Company further agreed to pay conjointly, out of their respective shares of the Gresham Estate, £1800 to the Commissioners of His Majesty's Excise, towards the charge of pulling down the College and building an Excise office." And yet, only eight years before, they had gravely calculated that their losses by Sir Thomas Gresham's gift amounted to the curiously exact sum of £201,318 17s. 8½d.!

The past, then, was chequered; and in the present what can be said? The present value of the original endowment should be something like three millions sterling, but only a small portion of this remains available. In small matters the authorities directing the College appear to have great regard for the founder's wishes. The subjects of the lectures nominally remain. The regulations as to hood and gown are observed, and the doors are thrown open to all "citizens and other." Dealing only with the lectures on Physic, it has been deemed advisable to discard all thought of physiology, pathology, and therapeutics. Purely medical lectures seem to have failed in the heart of the City, so that they have given place to a more popular course on Nursing. The well-filled character of the hall recently gave evidence of the lecturer's wisdom. The audience was as "mixed" as it could possibly be; a glance around sufficed to show that scientific research in medicine would not be appreciated. There is no doubt, however, that many present were interested. They were clearly on good terms with the lecturer, and greeted many of his "points" with discriminating applause. They were eager for anything in the way of an experiment, even when it was only taking the temperature of a bowl of hot water; they delighted in learning how to make a linseed-poultice, and were interested in the Listerian method. They certainly left feeling that they had learnt much as to poultices, fomentations, blisters, and the administration of food and medicine. If we consider the prime duty of a lecturer to be to interest his audience, to distribute such knowledge as they are able to appreciate, and to fill a room which has a reputation of being commonly empty, then indeed we may congratulate him on having succeeded. When we remember, however, that, so

far as Medicine is concerned in the present course, these four lectures on Nursing represent all we have to show for our share of three millions which should be devoted to research, we can only hope that the day may not be far distant when the modern representatives of the corporations who perverted Gresham's trust may be induced, either by uneasy consciences or by Act of Parliament, to restore this splendid endowment to its proper uses. It certainly looks like the beginning of the end when Physic is displaced in favour of Nursing.

## CHRONICLE OF THE WEEK.

SIR ANDREW CLARK, before a crowded meeting, including many provincial surgeons, raised a most important discussion at the Medical Society, on Monday last, on Catheter-Life and its Attendant Dangers. The paper on which the discussion arose—as will be seen by reference to it in another part of this journal—dealt with a class of cases apart, viz., such as were not associated with appreciable or manifest pathological changes in the urinary organs. The discussion turned for the most part on the cases in which a very manifest lesion was to be found either in the bladder, or ureters, or kidneys, or in all three; and in this sense, therefore, it (the discussion) was wide of the mark. Sir Andrew's propositions may be summed up as follows:—About middle life, in men apparently healthy, or with no discoverable disease *except* a low density of urine, the commencement of habitual catheterisation is sometimes followed by a form of remittent fever, which is often fatal. This danger is well recognised for persons *with* kidney disease, but not for apparently healthy persons, and the doctrine is not found in surgical text-books. The fever is neither distinctly uræmic nor pyæmic, but begins as a reflex disturbance of the nervous system of the urinary organs. There are good reasons to think that the mortality may be avoided or lessened by recognising the nature of the disease and by suitable treatment.

SIR HENRY THOMPSON opened the discussion. He objected *in limine* to the title of the paper. He much preferred the term "urinary fever," because it pertained to the urinary organs, and not essentially to the use of catheters. He recognised three distinct forms of this fever—1. An acute transient attack, following the use of the catheter, which rapidly passed off and left no trace behind; 2. An acute recurrent form, often associated with stricture of the urethra and lowered health—a not uncommon form, and not fatal; 3. A chronic urinary fever, coming on insidiously in old men, without rigors, soon after taking to the catheter. The cases which die very rapidly, clearly die of shock to the nervous system. In his own experience the chronic class of cases which were fatal always had advanced renal disease. Mr. B. Hill had examined the records of University College Hospital. He had never seen Sir Andrew Clark's class of cases without finding kidney disease sufficient to account for death. Of thirteen fatal cases in University College Hospital during the past few years, eleven had died with chronic nephritis. Mr. Savory thought the subject was well-worn, but had lately been overlooked in the multiplicity of new subjects which had cropped up. The immense frequency with which the catheter was used for all sorts of conditions, and at all ages, stood in marked contrast with the rarity of a fatal result; and this fact suggested to his mind that it was a peculiar condition, unassociated directly with the catheter. There were cases in which the kidney was not manifestly affected. For his own part, he was in the habit of having the urine examined as to its urea contents, as the most reliable evidence of



unimpaired function. The occurrence of rigors after catheterisation, the long-continued reflex irritability even under chloroform, the rigors which not infrequently followed on amputation of the penis, all suggested some special association of the organs with the nervous system; and, in his mind, those cases in which there was no pathological lesion of the kidneys died of shock. Mr. Reginald Harrison thought that something was due to the altered condition in the bladder—from over-distension to one of emptiness. He treated his cases by substituting for the urine, which was foul, some warm fluid which was aseptic. Mr. Bennett May thought that death resulted from septic causes. The President was familiar with these cases. In India, such deaths would have been attributed to malarial influences.

At the meeting of the Clinical Society on Friday week, papers were read by Dr. Cayley on pneumothorax occurring in the course of typhoid fever, and by Dr. Samuel West on a case of complete recovery from pneumothorax without effusion. Mr. C. J. Symonds read notes of cases illustrating the relation between labial herpes and rigor, one of which, being in every sense of the word a personal observation, was followed with much interest. All the papers gave rise to lively discussion. Living specimens of Charcot's joint-disease, and of successful union of fractured patella without operation, were also exhibited. The treatment of pneumothorax proved an interesting subject of debate. A large preponderance of opinion was found to be in favour of non-interference in all except the cases of rapid and severe dyspnoea. The absolute necessity of tapping the chest under these circumstances was made very clear by the cases recorded, and it is worthy of note that in almost all these no ill-effects followed the operation itself. While the simple treatment of expectancy was advocated by some speakers, others would agree to postpone operative interference until late; but no suggestion was made as to any evil results likely to follow from tapping, whether undertaken early or late. Looking to the fact that the lung, when compressed by air, tends to expand at once on the pressure being removed, it seems somewhat illogical to refrain from so simple a procedure as the evacuation of the air through capillary needles.

THE suggestion thrown out by the President of the Clinical Society at the close of the debate on November 23 has been carried into effect, by the appointment of a committee of investigation upon the subject of myxœdema and its relations to disease and removal of the thyroid gland. The work hitherto undertaken in this country has from the first been brought forward under the auspices of the Clinical Society; and the appointment of this committee, selected from its members, will still further identify it with the advance of our knowledge of this paradoxical disease. A glance at the names of which the committee is composed will sufficiently guarantee that the work will be carried out in a thoroughly scientific spirit.

At the meeting of the Pathological Society on Tuesday evening last the proceedings commenced with a specimen of a somewhat rare form of central necrosis of the tibia, exhibited by Dr. Turner, as to the exact nature of which the surgeons were not quite unanimous. Dr. Wickham Legg then narrated a case of wide-spread pigmentation of the skin in a patient the subject of multiple melanotic sarcomata, and without disease of the supra-renal bodies. The rest of the evening was devoted to some papers on tubercular ulceration of the tongue, and the discussion arising therefrom. The subject is one to which we alluded a fortnight ago, when Mr. Barker introduced it at the last meet-

ing of this Society. The existence of such an affection, though hitherto ignored, must henceforth be acknowledged to be proved beyond all doubt, although we have still much to learn about it—its mode of onset, for instance; does it always begin as an ulcer, or may this be preceded by a sort of gummosus change, which ulcerates by sloughing? Mr. Godlee's second case and Mr. Symonds' case would seem to support this theory of the onset. Then, may it precede the development of the lung affection, or does the deposit of tubercle occur simultaneously in both places? This is a question of immense practical importance, of which the cases brought forward did not afford any definite solution. One interesting point may be noted incidentally, viz., the greater preponderance of male patients affected. Mr. Barker had collected fifteen recorded cases. Of these eleven were males, and all the cases described last Tuesday were males. The debate came to a somewhat abortive termination, as no one was willing to second a motion to prolong the meeting beyond 10 p.m., to the undisguised joy (at least, it appeared so) of those at the reporters' table.

THE Ophthalmologists, or, as our American cousins would say, the "ophthalmists," had a busy time at their second meeting, last Thursday week. The most important paper of the evening was one by Dr. Brailey on sympathetic ophthalmia. He regarded a certain amount of cell-infiltration into the substance of the iris as a constant lesion, and exudation on its posterior surface as almost invariably present. Collections of newly formed cells were also commonly present on the posterior aspect of the cornea and the internal aspect of the pars ciliaris retinæ; inflammatory cells were also frequently seen in the layers of the choroid. Amongst the less common forms of sympathetic inflammation he recognised keratitis punctata, simple keratitis, and simple papillitis. As regarded the outbreak of sympathetic inflammation after removal of the exciting eye, his explanation was that the nutrition of the second eye might be so altered at the time by sympathetic irritation that the eye would afterwards be liable to spontaneous inflammation, even after excision of the damaged eye. He suggested that glaucoma, being a neurosis of the secretory nerves of the eyeball, might be produced sympathetically by the occurrence of glaucoma in the other eye.

DR. STEPHEN MACKENZIE was quite at home when dealing with anæmia as a cause of retinal hæmorrhage—a subject at which he has already done much good work. The cases he adduced on this occasion certainly tend to show, as he meant they should, that when the corpuscular richness of the blood falls below 50 per cent. we may look out for squalls, i.e., hæmorrhages in the retina. Mr. Waren Tay showed two very interesting cases—one, a man with atrophy of one disc after fracture of the base of his cranium; the other, a man with facial paralysis after an attack of herpes zoster. We ought also not to omit to notice Mr. Priestley Smith's very simple, and yet exceedingly ingenious, apparatus for demonstrating the conjugate movements of the eyes. A miniature of it ought to be in every medical outpatient room where students congregate.

THE charge brought by the Public Prosecutor against the late Mr. Haffenden and his patient came before the Central Criminal Court on Friday, the 14th inst., and, after a trial lasting the whole day, a verdict of acquittal was declared amidst loud applause. The chief witness for the prosecution broke down in cross-examination, and that, combined with the entire openness of Mr. Haffenden's proceedings and the evidence of Dr. Robert Barnes, the only



medical witness called for the defence, left no doubt in the minds of the jury that the charge could not be upheld. It is to be deplored that the prosecution was ever instituted, and it is a still greater matter for regret that Mr. Haffenden did not abide in life to see his reputation vindicated. The case, though reported so meagrely in the journals as to be useless for medico-legal purposes, will serve as a timely reminder—first, to the Public Prosecutor and his advisers never to bring such another charge against a medical practitioner without an overwhelming mass of proof; secondly, to pregnant women that it is something more than a peccadillo to destroy the fruit within their womb; and thirdly, to medical practitioners to be more wary in the use of the uterine sound. Ladies have been known to go to gynaecologists so well coached up in the symptoms of displacement that the sound has been introduced as a matter of course, and the doctor has not found out till afterwards that he has been made the subject of a plant.

INSTANCES of "science run riot" are not far to seek in this ingenious age, but we have never met with a more striking one than that which is described in the following cutting from a Scotch paper:—"At Stow, on Wednesday, the 12th inst., Dr. Carter Moffat, of Motherwell, gave a lecture 'On the Applications of Chemical Science to the Improvement of Vocal Tone.' Mr. John Anderson, with a choir, gave a selection of sacred and secular pieces during the evening, with harmonium accompaniments. The lecture embraced the results of many years' study at home and in Italy of the action of chemical agents on the vocal cords. The discovery of peroxide of hydrogen in the atmosphere of the plains and valleys of Italy led Dr. Moffat to conclude that that agent was the cause of the beauty of the Italian tone, as well as of the invigorating tendencies of that country to invalids. Experiments were made by the lecturer to demonstrate the effect of peroxide of hydrogen and condensed ammonia on vocal tone. These chemicals were inhaled by the members of the choir, and seemed to have the effect of enriching the voice." The lozenges and compressed tablets which have hitherto been recommended with such insistence as "good for the voice" to the members of the stage, the legislature, and the bar, have evidently had their day, and ere long the gas-bag will no doubt become an indispensable article of furniture at all "places where they sing." To found an establishment where those who are intending to live by their voice could take a course of daily inhalations, would be an enterprise of some pith and moment.

THE cold weather has sent up the mortality of the metropolis a point (from 21·5 to 22·7), but the deaths from diseases of the respiratory organs last week were still 95 below the corrected average, and the total deaths as many as 179 less than the usual tale in this week of the year. Zymotic disease also caused 62 fewer deaths in the week than the experience of the last ten years might have led one to expect; but the statement that 53 deaths were caused by measles, 40 by scarlet fever, 24 by diphtheria, and 25 by enteric fever, is sufficiently serious. What a wail throughout the country there would have been if as many lives had been lost in a colliery explosion or a battle! It may be said that the deaths from zymotic disease are deaths of children, and that plenty more are on the way to supply their place. That is true; but then these children have done nothing to repay the cost of their keep till death seized them,—they are so much sunk capital: whereas the collier and the soldier, who die at the post of duty, have at least repaid in work some of the money spent on them. Some day we—or our descen-

dants—will wonder that zymotic disease was borne with so long.

THE profession in Ireland is considerably excited about a letter which has been addressed to the governor of each convict and local prison in Ireland, by the Dublin Prisons Board, with reference to autopsies on prisoners. The letter, which was read on Tuesday last at the inquest on the Seville-place murderer, Poole, bears date September 29, 1883, and states that "in the case of an inquest being held as to the cause of death of an inmate of a prison, it is the desire of his Excellency the Lord Lieutenant that, in the event of a post-mortem examination being ordered by the coroner, such examination shall not be held by the medical officer of the prison, but by an independent medical authority." The Coroner stated his opinion that the circular contravened an Act of Parliament, and was an act of great discourtesy to an honourable profession. The order was probably not meant to apply to executed criminals, but, in any case, Earl Spencer and his advisers are ahead of their times. The hour of the "pathological expert" has not yet come.

"Oh, mickle is the powerful grace that lies in herbs!" That is a motto which may be seriously recommended to Mr. Holloway, to have written in gold above the portals of the imposing buildings which he has erected at Egham, and which will be opened in the course of the ensuing year. Mr. Holloway has made his fortune out of the middle classes, and it was a happy inspiration of his to devote his riches to their benefit. The sanatorium, a very large and handsome building close to the Virginia Water Station, is to afford persons of both sexes in the middle rank of life, who are afflicted with mental disorders, medical restoration and all the comforts of a home, and such social enjoyment as may be possible, with the ulterior view of forming a valuable and profitable school for the special study of mental ailments. The College for Women, on the outskirts of Windsor Forest, eclipses in magnificence all that Tennyson dreamt of in "The Princess." It will afford accommodation for 250 lady-students preparing for university examinations; but the founder hopes that, in course of time, it will be empowered to confer its own degrees. If these institutions are successful—and even medical practitioners cannot desire them to be otherwise—they will play no small part in the education of the future. Future generations will extol the munificence of their founder, and never cease to marvel at the strange predilections and adamantine viscera of his contemporaries.

THE following are amongst the most interesting of the communications to this week's French journals, viz.: a paper on the Doctrine of Acetonæmia *à propos* of a case of Diabetic Coma, by MM. Cornillon and Mallat, in the *Progrès Médical*; a note on the Pathological Anatomy and on the Nature of Psoriasis of the Tongue by M. Leloir, and an article on the Micrococcus of Pneumonia by M. Bricon—both in that journal. In the *Gazette Hebdomadaire* there is a paper by M. F. Vidal on Rheumatic Nodules of Long Duration. In the *Gazette des Hôpitaux* is a lecture by M. Trélat on the Surgical Aspects of Tuberculosis, as well as articles on Anomalous Measles, Pulmonary Emphysema, and Acute Cystitis.

AMONG the abstracts in the *Centralblatt für Klinische Medizin* may be noted those by Rummo, on Iodoform; by Baumann and Schotten, on Ichthyol; by Jubineau, on Tabes Spasmodica (from its negative interest); and by Journez, on an Epidemic of Typhoid Fever at Liège. Prof. Lugiani, of Florence, contributes an original article to the *Centralblatt für die*



*Medicinisches Wissen* on Mechanical Irritation of the Cerebral Cortex. The abstracts are of unusual number and interest; those by Kronecker and Nicolaidis, Henoeque and Eloy, and Erb and Desplats, upon Cerebro-Spinal Pathology and Physiology, may be especially mentioned. In the *Centralblatt für Chirurgie* is published an original paper by Dr. Bakó, of Pesth, on Suture of the Abdominal Wall. Abstracts of papers by Ch. Nélaton on Tubercle in Surgical Affections, and by Arnaud on Tubercular Inflammation of Joints, are also of interest. The *Centralblatt für Gynäkologie* is largely occupied by a critical article by Dr. Kehrer, of Heidelberg, on Dr. Mermann's "Aphorisms." An abstract of a paper by Straus and Cumberland on the Conveyance of Infectious Disease, especially Splenic Fever, from Mother to Fœtus in Utero, is of considerable importance. The chief contributions to the *Berliner Klinische Wochenschrift* are—by Dr. Zeller, on an Operation for Radical Cure of Congenital Inguinal Hernia; by Dr. Aufrecht, of Magdeburg, on the Treatment of Acute Nephritis; and by Dr. Körte, the conclusion of his paper on Treatment of Artificial Anus. Dr. Mikulicz, of Cracow, records two cases of Osteoplastic Resection of the Foot in the *Wiener Medizinische Wochenschrift*, which also publishes the conclusion of the papers by Dr. Weiss on the Prodromata of Paralytic Mental Disturbance, and by Dr. Biae on Idiopathic Hypertrophy of the Heart.

#### AN APPEAL.

MR. WALTER WHITEHEAD, of Manchester, writes to us in connexion with an appeal which is being made on behalf of the widow and children of a young surgeon, Mr. R. B. Carruthers, who has died from injuries received while attending a patient during the gale on the night of Tuesday week. On that night Mr. Carruthers went to attend a patient who had sustained a compound fracture of the leg from the fall of a chimney-stack, and while he was by her side another chimney-stack was blown down. Mr. Carruthers became wedged in the *débris*, and a considerable time elapsed before he could be got out and taken to the Royal Infirmary, where not long ago he was a constant attendant as a medical student. At the Infirmary it was found that he had sustained a compound double fracture of the right leg, injuries to his back, and several minor contusions. The question of amputation of the injured leg could never be entertained. Mortification set in on Saturday morning, made rapid progress, and terminated fatally on Sunday. The deceased was under the immediate care of Mr. Whitehead, who visited him frequently each day, and he also had the benefit of the advice of Dr. Simpson, Mr. Lund, and Mr. Heath. Mr. Carruthers leaves a widow and three children, who are, we have been informed, comparatively unprovided for. A representative committee has been formed to raise a fund for their benefit, including the names of the Mayor and the Bishop of Manchester; Dr. Greenwood, Vice-Chancellor of the Victoria University; Profs. Roscoe, Gamgee, Roberts, Leech, Dreschfeld, and Lund; Dr. Simpson, and Mr. H. B. Jackson. Mr. Walter Whitehead is acting at present as honorary secretary to the committee, and Mr. F. Ashton Heath, of Portland-street, as treasurer. The appeal will doubtless meet with a favourable response from the medical profession throughout the country.

#### VESTRIES AND MEDICAL OFFICERS OF HEALTH.

THE daily journalist, safe beneath his impenetrable mask, seldom wearies in making accusations of a general kind. One of the latest instances may be found in an article by a contemporary commenting on the relations of metropolitan officers of health and vestries. It is asserted that on account

of the present position of the metropolitan medical officers of health, most of them eking out their salaries by private practice, and all dependent on the vestries for the length of their tenure of office, they fail in duty; that in cases where vestrymen are concerned they have eyes that see not, noses that do not smell. We quite admit that it would be better for medical officers of health to devote their whole time to public duties, and not to hold their office at the pleasure of an elective body. An ill wind is that which wafts no ship to port; and, from recent authoritative utterances, the position of medical officers in this and in other respects is likely to be improved under any new distribution of London local government. That, however, the medical officers of health have been kept in check or awed by their employers is not in any way supported by facts. Where is the single instance of a medical officer of health being even censured for his zeal by the sanitary authority? Sanitary committees may have been meddling; leniency and laxity may also be brought home to a few, a very few, of the local bodies; but, as a rule, the metropolitan medical officers of health have done their duty well and fearlessly. We know instances are constantly occurring of the ordinary notices being not only served on vestrymen, but enforced. It is difficult to believe that any local governing body exists in the metropolis that would take the side of the vestrymen in resisting the requirements of a health officer, still less in oppressing him for his independent action. The present overcrowded and insanitary state of the poor is not produced by the sins of omission or commission on the part of vestries, but is attributable to causes which it has not suited the politician at the moment to refer to—the enormous price of the London land; poverty; and the personal habits of the insanitary degraded English, of the Irish, and of the Italian immigrants, colonising the slums and alleys.

#### DR. CARPENTER ON THE MODIFIABILITY OF GERMS.

IN a leading article on "Bacteria and Disease," in our issue of November 3, we upheld what we have since heard called the very heterodox hypothesis that certain species of pathogenic bacteria may have a free-living phase in which they are entirely harmless. A somewhat similar theory was stated by Dr. W. B. Carpenter in a paper read at the meeting of the British Association at Southport, and has since been re-stated by him in an interesting letter which he has addressed to the President of the Carlisle Microscopical Society, on being elected an honorary vice-president of that active club. "I need scarcely point out to a body including many medical men," he writes, "what a wide field there now is in the study of disease-germs. As a qualification for that study, I should suggest the determination of the life-history of the yeast-plant. For there is a strong reason to believe that what we know under this form is only an aberrant stage in the life of an ordinary mucor; its cell-germs developing themselves in a very different mode, in a saccharo-albuminous liquid, from that in which they vegetate on an ordinary mould-producing surface. And while, on the one hand, it was long since observed by Mr. Berkeley that a mucor may develop itself in a confervoid form in ordinary water, it is still an open question whether, if growing in an organic fluid, the same mucor may not become the 'vinegar-plant.' I have always, myself, been a believer in the great polymorphism of the 'saprophytic' fungi; and I recently argued that the extension of the same idea to disease-germs will account for many clinical facts observed by able practitioners of medicine, which have hitherto received, in my opinion, far too little attention—I mean, the occurrence of what have been called hybrid varieties of exanthemata, or of forms of fever inter-



mediate between typhus and typhoid, or the conversion of an endemic malarious remittent into a contagious fever."

#### "ABDUCTOR" PARALYSIS OF THE LARYNX.

THE study of laryngology, which is steadily advancing to its proper place in the ranks of the medical sciences, will be still further stimulated in its progress by a valuable, and in part original, contribution to some recent numbers of the *Berliner Klinische Wochenschrift* by Dr. Felix Semon. The subject is one with which his name has been for some time associated—viz., the proclivity which certain fibres of the recurrent laryngeal nerve show to become affected by any common cause of paralysis before any of the other fibres of which the nerve is composed. The fact that paralysis of the abductor muscles of the larynx was the most frequent lesion found in cases of pressure of tumours upon the trunk of the nerve had long been known, but the clue to the correct explanation of this frequency had never been found. The credit of the discovery, that in *all* cases of such paralysis the abductor muscles are the first to be affected, undoubtedly rests with Dr. Semon. In his recently published paper he brings forward a series of cases, observed and recorded with a scientific precision that renders them of the highest value, showing that not only in cases of peripheral but also of central paralyzing lesions the abductor muscles have been invariably the first, if not the only, set of muscles to become paralysed. The importance of this observation is great, whether regarded from a scientific or practical standpoint. It is more than probable that the earliest signs of developing tumours, or even of central brain-disease, may be given by the larynx, if its indications be rightly interpreted. Such severe conditions as bilateral paralysis of the abductor muscles give rise, of necessity, to symptoms of such gravity that, even without the use of the laryngoscope, no doubt can exist of the obstruction which they produce. But probably few persons are aware how complete may be an abductor paralysis on one side of the larynx without the production of any noticeable symptom. The vocal cord, drawn to the middle line by the uncounteracted traction of the healthy adductor muscles, may still be capable of function so far as to produce unaltered vocal tones, and the glottic chink is still wide enough to give passage to all the air required for quiet respiration. That such a condition is too often left unrecognised for want of thorough examination is as certain as it is unsatisfactory. The routine use of the ophthalmoscope is now established in all cases where central or peripheral nerve-lesions are suspected, and the most enthusiastic ophthalmoscopist would hardly claim that its revelations are invariably diagnostic. Might not the routine use of the laryngoscope lead to an earlier diagnosis of commencing aortic aneurysm with at least equal frequency to that of the ophthalmoscope in the diagnosis of commencing tubercle of the meninges?

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-ninth week of 1883, terminating December 4, was 1025 (549 males and 476 females), and of these there were from typhoid fever 34, small-pox 2, measles 18, scarlatina 1, pertussis 8, diphtheria and croup 50, croup 50, erysipelas 2, and puerperal infection 4. There were also 52 deaths from acute and tubercular meningitis, 172 from phthisis, 47 from acute bronchitis, 63 from pneumonia, 68 from infantile athrepsia (26 of the infants having been wholly or partially suckled), and 30 violent deaths (23 males and 7 females). The mortality of this week has considerably increased upon that of the preceding week (972), although the deaths from epidemics remain sta-

tionary, with the exception of those from measles and diphtheria, which have increased in a slight degree. During the week there were 1163 births, viz., 600 males (441 legitimate and 159 illegitimate) and 563 females (401 legitimate and 162 illegitimate): 82 infants were born dead or died within twenty-four hours, viz., 38 males (25 legitimate and 13 illegitimate) and 44 females (30 legitimate and 14 illegitimate).

#### INSTRUCTION IN HYGIENE.

WE have received from Dr. Corfield the prospectus of the active Department of Hygiene and Public Health at University College. The time will come when instruction in sanitary science will form an essential part of every medical curriculum, and the subject will be practically taught at every hospital. But at present those who direct the course of medical studies seem almost as far from filling up this gap in general medical education as they were a century ago, when the publication of the third volume of Frank's great work on State Medicine first called attention to the prevention of disease. It is a strange commentary on the unsatisfactory state of medical education in this country, that from the time when the student enters at a hospital to the moment when he receives his diploma he hears not a word about the prevention of disease, it being entirely ignored except in the higher examinations. But there can be no doubt that the science of hygiene has a great future before it; and when other hospitals wake up to their responsibilities, and decide on instituting instruction in hygiene, it is to the courses of Prof. Corfield at University College, and of Prof. Kelly at King's College that they will go for their models. At present, no doubt, the University College course is the only really complete one from both the scientific and the practical point of view, and it has in effect a monopoly of this branch of instruction. Practitioners come from all quarters of the world to share in its advantages, and the list of honours and public appointments gained by them is a testimony to the valuable work done by the department. We are sorry not to see more candidates competing at the London University for the sanitary certificate. Only one has obtained it this year—Dr. Louis Parkes, who was one of Dr. Corfield's pupils. The title of the diploma is unsatisfactory. Surely the subject is worthy of more than a certificate!

#### THE LATEST IRISH CONJOINT EXAMINATION SCHEME.

AN *ad interim* report has been submitted to the King and Queen's College of Physicians and to the Royal College of Surgeons in Ireland by a combined committee, consisting of representatives of both Colleges, appointed for the purpose of suggesting and reporting upon a scheme for the giving conjointly of diplomas in medicine, surgery and midwifery. The report includes the following six resolutions:—1. "That it is desirable that, under certain conditions, the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland should combine so as to give a complete examination in medicine, surgery, and midwifery." 2. "That candidates who pass the combined examinations shall be entitled to receive the licences of the Colleges in medicine, surgery, and midwifery." 3. "That the Colleges do bind themselves not to grant separate diplomas except to candidates who already hold, in the case of the College of Physicians a surgical diploma, and in the case of the College of Surgeons a medical diploma. (The surgical and medical diplomas referred to in this resolution are to be approved by both Colleges.)" 4. "That the fee to be paid by each successful candidate shall be thirty guineas for the diplomas in medicine, surgery, and midwifery." 5. "That the expenses



of the professional examination shall be defrayed in equal shares by the two Colleges, and that the surplus thereafter remaining shall be divided between the College of Physicians and the College of Surgeons in the proportion of three to five respectively." 6. "That in the opinion of this Combined Examination Committee the proposed scheme should be based upon the principle of sessional professional examinations." The foregoing report has, we understand, been under consideration separately by the President and Fellows of the College of Physicians and by the Council of the Royal College of Surgeons, but no conclusion or compromise has yet been arrived at.

#### METROPOLITAN HOSPITAL SUNDAY FUND.

ON Monday afternoon the annual general meeting of the clergymen and laymen representing the congregations who have contributed to this fund was held at the Mansion House, the Lord Mayor, M.P., and afterwards Sir J. Risdon Bennett, presiding. The Lord Mayor having, in opening the proceedings, expressed his willingness to render the fund any assistance in his power during his year of office, the report of the Council was submitted. It stated that the eleventh year of the existence of the fund disclosed the satisfactory increase of seventy-seven in the number of contributing congregations as compared with the number for the previous year. The total amount realised was £33,935, as against £34,146 in 1882, £31,856 in 1881, and £27,700 in 1873 (the year when the fund was started). The contributing congregations had increased from 1072 in 1873 to 1414 last year. The fund was distributed among 148 institutions, of which a list has already been given. Four per cent. of the total amount of the collections—viz., £1400—had been set aside for the purchase of surgical appliances. The total amount available for distribution was £32,243, of which £29,664 was given to ninety-seven hospitals, and £2579 to fifty-one dispensaries. The working expenses had been £1149, or a little over 3 per cent. of the gross receipts. The report having been received and approved, Mr. Few moved, and the Rev. J. F. Kitto seconded, the continuation of the existing laws of the Society, with a trifling alteration. The Rev. J. W. Bennett proposed, and the Rev. N. Loraine seconded, an amendment suspending, in favour of the Royal Hospital for Incurables, a regulation by which no institution, to the benefits of which admission could only be gained by selection from the general body of subscribers, should be eligible for grants from the fund; and directing that that institution should be admitted to a share of the fund in respect of its hospital work, and exclusive of its pension-list. The subject gave rise to a long debate, and it was finally agreed that the question should be adjourned, and that a special meeting should be called before the next collection, to determine whether or not any alteration should be made in the constitution of the fund. The Council having been reappointed with a few changes, June 15 next was fixed as Hospital Sunday for 1884; and votes of thanks having been accorded to the Lord Mayor and Sir J. Risdon Bennett, the proceedings terminated.

#### THE DIAGNOSTIC VALUE OF THE BACILLUS TUBERCULOSIS.

DR. AUSTIN FLINT stated, at a recent meeting of the New York Medical and Surgical Society, that he had lately made this question a subject of clinical study; and, so far as his experience had gone, it confirmed the value of the presence of the bacilli in the sputa as positive proof of phthisis, their absence being of more or less value in the exclusion of that disease, and the importance of their comparative abundance or scarcity as bearing on the question as to whether the disease was or was not actively progressing.

#### COOMBE LYING-IN HOSPITAL, DUBLIN.

ON Thursday, December 13, Dr. Samuel Roberts Mason was elected Master of this institution, in succession to Dr. George Hugh Kidd, whose septennial period of office had lately expired. Dr. Mason is a graduate in Arts and Medicine of the University of Dublin, and a Fellow (1874) of the Royal College of Surgeons in Ireland. He served as Assistant-Master at the Coombe Lying-in Hospital, and has for some time filled the post of Lecturer on Midwifery and Diseases of Women in the Ledwich School of Medicine, Peter-street, Dublin.

#### "THE BOWER AND KEATES CASE."

AT a meeting of the Committee, held on Wednesday evening, December 19 (Sir William Jenner, Bart., in the chair), it was agreed—(1) that a copy of the appeal should be sent to every member of the profession in the United Kingdom whose name appears in Messrs. Churchill's "Directory"; and (2) that the hon. secretaries be requested to communicate with the hon. secretaries of the various branches of the British Medical Association, with a view to obtain their valuable co-operation in this matter. The following subscriptions to the indemnity fund have been received or promised in addition to those already announced:—

	£	s.		£	s.
Sir William Gull, Bart. ...	10	10	Dr. Gibbings, Dalston ...	3	3
Mr. John Marshall, F.R.S. ...	10	10	Mr. Lumsden Propert ...	2	2
Mr. Jonathan Hutchinson, F.R.S. ...	10	10	Mr. James Adams ...	2	2
Dr. Russell Reynolds, F.R.S. ...	10	10	Dr. Philpot ...	1	1
Dr. C. T. Williams ...	5	5	Mr. Spencer Watson ...	1	1
Mr. J. W. Hulke ...	5	5	Dr. Heywood, East Dulwich ...	1	1
Messrs. Merriman, Kensington ...	5	5	Mr. C. Ballance ...	1	1
Mr. W. Pitt Palmer ...	5	5	Dr. Corbett Blades, Kennington ...	1	1
Dr. R. Barnes ...	5	5	Mr. Laurence Read, Kensington ...	1	1
Dr. Gervis ...	5	5	Dr. H. G. Swan ...	1	1
Dr. Kershaw, Surbiton ...	5	5	Dr. Garskill ...	1	1
Mr. J. T. Jackson, Highbury ...	5	5	Dr. R. W. Burnet ...	1	1
Dr. Matthews Duncan ...	3	3	Dr. Stanley Haynes, Malvern ...	1	1

#### THE PARIS FACULTY OF MEDICINE.

AT the last meeting of the Conseil Académique de Paris, it was stated (*Gaz. des Hop.*, December 11) that the number of medical students on October 1, 1883, was 4207 (only two less than in October, 1882), of whom 108 were foreigners. The "Egyptian Mission," which formerly attended the courses of lectures delivered at the Paris Faculty, has, since recent events, been transferred to England. Among the medical students of the present session there have been forty-five ladies (six more than in 1882), for the most part Russians. Among the 6076 examinations which were undergone during the academic year 1882-83, the proportion of *ajournements* was 24 per cent.—the candidates having been generally weak in physics, chemistry, and the natural sciences.

#### THE TYNEMOUTH RURAL SANITARY DISTRICT.

DR. F. W. BARRY has recently been employed for a considerable period, on behalf of the Local Government Board, in inquiring into the sanitary condition of Tynemouth and its neighbourhood, and his report upon the Tynemouth Rural Sanitary District has just been published. This district has fourteen contributory places, divided into north and south, under two medical officers of health, and from Dr. Barry's most comprehensive report it is to be gathered that, since the establishment of the Rural Authority under the Public Health Act of 1872, sanitary administration has in several important respects been efficiently carried out. Previous to that period it is reported that there was an almost entire absence of sanitary arrangements: drainage was imperfect, or entirely wanting; privy accommodation there was none; whilst the water-supply was very deficient and inferior in quality. Since that time nearly all the villages



have been efficiently drained, and the sewage dealt with effectually at its outfall; the water-supply has been much improved; whilst, with few exceptions, the dwellings have been provided with means for the storage of filth. Nevertheless, Dr. Barry points out that the water-supply is, as yet, far from satisfactory, the outbreaks of fever of the enteric type which have from time to time occurred being in nearly every instance traceable to polluted water, whilst the provision of suitable hospital accommodation is of the first importance to enable the Sanitary Authority to cope successfully with outbreaks of infectious disease.

MR. T. K. UNDERWOOD having resigned the position of Dean of the School in connexion with the Dental Hospital of London, Mr. Morton Smale, M.R.C.S., L.D.S., has been elected to the post. Mr. Smale has been Medical Tutor at the institution for several years.

THE Council of the Ophthalmological Society are desirous of founding a library and museum in connexion with the Society, and with that object in view they have appointed a small committee, who will be glad to receive any gifts of books, instruments, appliances, or drawings relating to ophthalmic medicine or surgery. Communications should be addressed to either of the Hon. Secretaries, viz., Dr. Abercrombie, 39, Welbeck-street, or Dr. Brailey, 16, Orchard-street, Portman-square, W.

## SANITARY WORK IN INDIA.

THE ignorance and want of curiosity shown by most Englishmen as to the affairs of their great Imperial dependency has become proverbial. Only when a war, or a great pestilence, or a famine, or flood, or other disturbance of natural progress bursts upon the country is their interest at all excited. The medical profession, cultured as it is, is not exempt from the general want of knowledge and curiosity, and though the experiments in disease that Nature makes in India, and the experiments in prevention that man is opposing to her, are both on a scale which dwarfs our largest efforts at home, all is allowed to pass without notice or comment here. This is not fair either to ourselves or to the hundreds of brother workers who are doing such good service amongst the difficulties and trials of an Indian life. The fault, perhaps, is in great measure due to the unattractive form in which information on the subject is presented. For the man who wishes to study sanitation in the East, nothing can be more satisfactory than the Reports of the Sanitary Commissioners of India, with their long and well-arranged array of figures and tabular statements; but for the man who only *reads*, and who has no turn for statistics, these reports are, to say the least, uninviting. Some day in the future, it is to be hoped, a writer with the historian's gift will take these figures in hand, and weave for us out of them a story which will excite our interest in spite of ourselves.

The whole sanitary work of India was reorganised by the Government some seven years ago, and since then much valuable work has been done. In the presidency towns, Calcutta, Madras, and Bombay, sanitation is placed under the supervision and direction of special health-officers appointed and paid by the respective municipalities. Their position and duties are exactly analogous to those of urban medical officers of health at home, except that they are much less hampered in the discharge of their duties by the conflict of vested interests. In rural India the sanitary arrangements are considerably different. Each presidency is placed under a sanitary commissioner, who ranks as a deputy surgeon-general but is independent of the head of the Medical Department. For registration purposes, each presidency is divided into a certain number of districts, varying in area and population, for each of which there is a medical officer designated a deputy sanitary commissioner. It is these officials who

have the sanitary welfare of India in their hands. Their duties are onerous, but varied and interesting. They include the compilation of the vital statistics of the district, the superintendence of vaccination, and the supervision of the sanitary condition of towns and villages, more especially the latter. All this entails constant, careful supervision, and a large and yearly increasing amount of clerical labour, the establishment for each office at present sometimes being four clerks. The birth and death registers are made up by the revenue officers in the vernacular, and are sent monthly to the office of the deputy sanitary commissioner, where they are transferred to English forms before being submitted to the sanitary commissioner. The registers are not so accurate as could be wished, but this is not the fault of the Sanitary Department.

Vaccination is compulsory in a few of the large towns only; Bombay, faithful to its motto, "*Primus in Indis*," having been the first to set a praiseworthy example in this respect. Animal vaccination is practised probably on a larger scale in Bombay than in any other part of the globe—a fact which greatly redounds to the liberal spirit of its municipality. In the districts arm-to-arm vaccination is the practice, lymph being changed as occasion requires by supplies from England in the cold season, when the vaccine germ is more active, and yields more satisfactory results. The variolous poison also appears to acquire greater strength in the winter, if one may judge from the prevalence of small-pox in the plains of India—a fact possibly due to the lower temperature of the atmosphere causing increased gaseous tension. Small-pox is undoubtedly spread by hill-tribes, who are, as a rule, very dirty people clad in woollen tatters seldom washed. The disease is also propagated by inoculation, which is still practised in native States, and is periodically imported into British territory, especially in the cold season, when communication with hilly countries is more general; in the hot season in the plains the disease invariably declines. This may be partly owing to the increased activity of the skin, and partly due to the fact that bathing is also more frequently practised on account of the heat and from water being more plentiful in canals and tanks; and, lastly, the attenuated state of the air may be an important factor in diluting the poison. Wherever small-pox breaks out, the vaccinator promptly operates on all unprotected persons within his reach. The inspector and an additional vaccinator are also detailed for duty in the affected district, should their services be necessary, and revaccination is largely carried on. The deputy sanitary commissioner personally renders all possible aid as regards treatment, isolation, and disinfection, and reports to his immediate superior, the sanitary commissioner, on the origin, source, and type of the disease. Any reported death from small-pox after vaccination is specially inquired into, and it is needless to add that such cases invariably prove not to have well-marked cicatrices.

The blessings of Jenner's discovery are fully appreciated by the more intelligent classes, who take a pardonable pride in exhibiting three or four typical scars on one or both arms of their swarthy little ones; for it is customary in India to vaccinate on both arms at once, and with the most successful issue. There is some difficulty experienced in vaccinating females of the higher class, who dare not show their faces to a strange male, or indeed to anyone outside the harem. In some instances midwives have been taught how to vaccinate, but the result of their work could not be satisfactorily verified. We would invite the attention of our female *confrères* who are about to embark on an Indian career to this important sphere of labour and usefulness among their less favoured sisters.

Deputy sanitary commissioners are travelling through their districts during eight months of the year, when they come into personal contact with people of all classes, their presence and precepts exercising the most beneficial influence in regard to preventable diseases. The water-supply of each town and village is examined, and the condition of wells, tanks, and canals noted; any source of contamination is pointed out, and suggestions and recommendations are made to remedy existing defects. Meat and fish markets are inspected, and precautions adopted with regard to the sale of unwholesome food. Slaughter-houses are established at a distance from human habitations, and the necessary supervision is exercised. Surface cleanliness and conservancy are attended to by a staff of scavengers of a



strength proportionate to the population of the town, cantonment, or village. The night-soil is removed from the privies to depôts conveniently situated, from which it is carted off to some distance to be converted into "poudrette," burned, or buried in pits. When buried in trenches it becomes converted, after nine months or a year, into a rich black mould, which is sold for manure whenever there happens to be a sufficient demand. The dry-earth system is carried out to perfection in those of the Indian gaols which are favourably situated as regards arable land. The soil is applied to the ground in a fresh state in gardens where luxuriant crops of vegetables are grown for the use of the prisoners or for sale in the bazaars, the sums realised being credited to Government. In the smaller outlying villages special plots of ground and patches of jungle are set apart for natural purposes, care being taken that they are distant from the drinking-water source, and, if possible, not in the direction of the prevailing winds. To prevent the pollution of the water-supply, special stations are appointed for the use of washermen and watering animals. In conclusion, it may be stated that there is not the least doubt that the sanitary condition of many Indian villages would compare favourably with that of villages at home, and it is questionable whether any nuisance exists in the East as aggravating as that caused by a London dustcart on a windy day. As these receptacles are uncovered and heaped high with sweepings, a cloud of dust is blown from them as they are driven along the thoroughfares. Such an arrangement is scandalous and discreditable to the richest municipality in the world, and it should be forcibly brought to the notice of the sanitary authorities, as in all probability many diseases are propagated by this means.

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### FEVER PREVALENCE IN LIVERPOOL.

DR. J. STOPFORD TAYLOR, Medical Officer of Health for the City and Port of Liverpool, in his report on the sanitary condition of the locality for the year 1882, refers to the remarks which he made when commenting on the history of the previous year, with regard to the increase of fever (chiefly typhus) in his district among the poorer population. The apprehensions of its increase then entertained have, he says, been unfortunately realised, since the number of deaths during the past year has been 593, against 292 in 1881, and the number of cases coming under the notice of the medical officer of health has been 2643, or 1436 more than in the previous year. The prevalence of fever is, Dr. Taylor observes, generally associated with insanitary property and crowded courts and alleys; but in the early part of the year under notice there was an outbreak in the West Derby district, just outside the municipal boundaries, where the houses are comparatively new, and the situation elevated, open, and healthy; but some of the houses were occupied by a class similar to those dwelling in the lowest parts of the city, and when fever got amongst them it spread rapidly. From January to April twenty-nine cases were sent to the Brownlow Hill hospital from this district alone, eight of which terminated fatally. The necessity for a system of compulsory notification of infectious diseases is, Dr. Taylor thinks, becoming more generally felt as the very first step in preventive treatment; the subject, he says, has been discussed both in the Council and by the Health Committee, but nothing definite has resulted beyond affirming the principle. Meanwhile, the report observes, it is futile to expect that a sanitary authority which only receives information of the dying and the dead will be able to cope with infectious disease whilst it is being secretly spread and scattered broadcast by the affected as well as by their visitors and attendants. However desirous many persons may be to nurse the sick at their homes, it is utterly impossible to so isolate cases of fever in small or even ordinary-sized houses, as to secure the other members of the family, and the public from the danger of infection; whilst by the early removal of the sufferers to clean, airy wards, with skilled and trained nurses to attend upon them, they have a much better chance of recovery than if left at home to the kind but inexperienced management of relatives and friends.

### THE WORK OF THE MEDICAL OFFICER OF HEALTH FOR THE PORT OF LONDON.

THE half-yearly report of Dr. Collingridge, to June 30 last, in his capacity of Medical Officer of Health for the Port of London, has recently been made public. In the outset the report calls attention to the increased duties imposed upon the staff, consequent upon the extension of the Committee's jurisdiction below Gravesend; also to the fact that such extension necessitates increased hospital accommodation, since, in the event of cases of infectious disease being met with in vessels lower down, while it would obviously be out of the question to allow them to remain on board, it would be equally impossible to remove them twenty or thirty miles to the hospital-ship at Gravesend. To meet this difficulty, Dr. Collingridge suggests that, as there is a small hospital at Rochford for infectious diseases, under the control of the Rochford Union, arrangements should be made with that authority to receive any cases that might occur within a reasonable distance of it; and this suggestion is being considered by the Committee of the Corporation. It would also appear that the old hospital-ship *Rhin*, which has for so long a time been stationed off Gravesend, is to be superseded by a hospital built on shore on a piece of land acquired outside that town. This, Dr. Collingridge thinks, is a very wise decision: the *Rhin* has undoubtedly been of great service, but she was most unfitted for a hospital, being too large, and absolutely without proper arrangements for ventilation; her timbers, also, were so rotten as to be absolutely unsafe, while the whole structure was just in a condition to retain infection.

With the exception of small-pox, the Port, during the six months under notice, has been exceptionally free from infectious disease, and, happily, those cases which have occurred have all been quickly discovered, and every precaution taken to prevent the spread of the disease. In the case of a vessel hailing from Seaham, from which a man was removed with semi-confluent small-pox, although the vessel was duly fumigated, on her leaving the Thames notice was sent to the Medical Officer for the Port of Seaham, in order that special attention might be paid to her. The system of intercommunication between medical officers of different ports has, Dr. Collingridge explains, now become a settled thing, and, as might be expected, has been productive of extremely good results. Thus, the fact of a vessel leaving one port for another by no means frees her from sanitary inspection, as notice reaches the port of destination before she can. Four of the school-ships stationed on the river were visited by either typhoid or scarlet fever during the six months. In at least two instances the infection was imported by lads returning from a holiday on shore. On May 3 last a large number of boys on board the *Cornwall* were attacked with curiously vague and indefinite symptoms. Two cases were diagnosed as enteric fever, and seven as scarlet fever—in most of the latter there being no eruption. The remaining cases—fifty-four in all,—though they could scarcely be classed as any definite disease, presented well-marked and similar symptoms. There was, the report says, in most cases a distinct rise of temperature for a few days only, followed frequently by a temperature much below normal, and almost invariably accompanied by diarrhoea, whilst sorethroat was a marked feature with most. Dr. Collingridge bears testimony to the thorough arrangements which were made on board the ship for checking the outbreak; but, although he undertook a careful investigation and thorough examination of the vessel, he was reluctantly compelled to come to the conclusion that the cause of the outbreak was not to be discovered.

**DIMINUTION OF BLINDNESS.**—The authors of the recent Census note the encouraging facts that the proportion of the blind to the population has not only decreased with each successive enumeration since 1851 (in which year account of them was taken for the first time), but the decrease in the decade ending in 1881 was much greater than in either of the preceding decennial intervals. The number of cases returned on this latter occasion was 22,832—equal to one blind person in every 1138. This decrease is considered to be fairly attributable to the progressive improvement in the surgical treatment of affections of the eyes, and to the diminished prevalence among children of such diseases as small-pox.



## ABSTRACTS AND EXTRACTS.

**SALICYLATE OF SODIUM.**—Dr. Kennedy, in the *Phil. Med. Reporter*, November 24, recommends the following formula for rendering the salicylate of sodium pleasant to the taste:—*R.* Sod. bicarb.  $\mathfrak{z}$ ij.; acid. salicyl.  $\mathfrak{z}$ ij.; glycerinae, aquae,  $\mathfrak{a}\mathfrak{a}$   $\mathfrak{z}$ ij.: a teaspoonful every four hours. The carbonic acid gas is set free, and the sodium uniting with the salicylic acid, forms a salicylate, which is held in suspension by the glycerine.

**FOREIGN BODIES IN THE EAR.**—Dr. Chisolm, of Baltimore, in a paper read at the Medical Society of Virginia, stated that little bony projections at the outside of the membrana tympani are often taken for foreign bodies, and the attempt to extract them has produced disease and permanent deafness. In proof of this statement, he cited several cases which had come under his own notice. He believes that there are numerous cases of individuals living many years with foreign bodies in the ear without a knowledge of the fact, and stated that most instances of inflammation of the ear were due more to injudicious attempts at removal than to the presence of the body itself. He had never seen, in all his experience as a specialist, a case of foreign body in the ear, not interfered with by another person, which he was unable to remove by the careful use of a syringe and warm water. In all instances of leguminous or other foreign bodies that increase in size by the absorption of water in the ear, he recommends the filling the meatus with pure alcohol, to produce shrinkage, before using the syringe.—*New York Med. Record*, September 15.

**THE MIXTURE OF CHLOROFORM AND AIR AS AN ANÆSTHETIC.**—Prof. Paul Bert read to the Société de Biologie a note from M. Peyraud, of Libourne, in which he stated that his employment of a mixture of air with chloroform in surgical anæsthesia had furnished him with the same results as those obtained by Prof. Bert in his experiments on the dog. By this procedure, which consists in pouring out a drop of chloroform at each inspiration, M. Peyraud succeeds in obtaining anæsthesia with very small quantities of chloroform, and without inducing a period of agitation. Thus, a young woman was anæsthetised with six grammes in seven minutes, while a child of four years of age required only three grammes. A woman also, suffering from cancer of the breast, who had been twice given up in despair by surgeons in consequence of her unprecedented resistance to the effects of chloroform, was rendered by this procedure completely insensible by means of twenty-five grammes, although the operation lasted an hour. M. Peyraud employs a mixture consisting of twelve grammes of chloroform to 100 litres of air, while Prof. Bert in his experiments has employed ten grammes.—*Gazette des Hôpitaux*, December 4.

**TUBERCULOSIS AND THE GERMAN ARMY.**—The Berlin correspondent of the *Phil. Med. News*, August 25, states that a circular has been issued from the Medical Department of the Ministry of War, urging upon the army medical officers to give their earnest attention to commencing tuberculosis amongst recruits, and, as far as possible, not to enrol suspected individuals at all, or, if enrolled, to dismiss them from the service in the earliest stages of the disease. Hospital patients suffering from unquestionable tuberculosis are to be isolated, and their sputa are to be disinfected. It is firmly hoped that the death-rate from tuberculosis—already diminished to 3·8 per 1000 by the sanitary improvement of barracks and hospitals—may thus be reduced to its lowest possible degree. In relation to this question, the microscopic examination of the sputa lately has become of the greatest importance, and, therefore, first-rate microscopes were recently distributed among all the larger garrison hospitals, in order to facilitate an early diagnosis. Prof. Fraentzel, who is also an army medical officer, in a paper read at the Berlin Military Medical Society, warmly approved of this step taken by the War Department. He said he felt a pride in having been the first among German clinical teachers who had adopted the germ-theory of tuberculosis, and scrupulously applied its logical deductions to clinical practice. Continued experience, now comprising upwards of 500 cases, served to confirm his former views as to the diagnostic and prognostic value of the tubercle-bacilli found in the sputa.

## REVIEWS.

*A System of Surgery, Theoretical and Practical.* In Treatises by Various Authors. Edited by T. HOLMES, M.A. Cantab., and J. W. HULKE, F.R.S. Third Edition, in three volumes, with illustrations. London: Longmans, Green, and Co. 1883. Pp. 1109, 964, and 942.

## [FIRST NOTICE.]

THE editors of the present edition of the "System" are, on the whole, to be congratulated on the completion, no less than on the result, of their labours. They "plead the extreme difficulty of their task as an excuse for the many shortcomings of which they are conscious in its execution," and thus, in part, they disarm much of the criticism which would otherwise have to be made. In the compilation of all such "systems" as this before us, there are sure to be inequalities in the style and treatment of the subjects; and this is all the more likely to occur when new authors have to be introduced either to re-edit, re-write, replace, modify, or supplement the old essays; for it is through one or other of these processes, we find, that the old essays have passed before being presented to us in the new edition. Better were it, by far, for all parties, including the readers, if when an author for some reason or other no longer edits his own essay, an entirely new article were substituted, and its treatment left altogether to the discretion of the newly selected author. Our contention will readily be granted, we think, by anyone who will contrast one of the new articles in the present edition with one from the old edition which has only been "modified" or "re-edited" or "supplemented." It is stated that the same general arrangement has been followed as in the two former editions; and that all the treatises have been carefully revised either by the original authors or "by surgeons of known authority on the topics in question." Doubtless this is correct in a great many instances, but it appears to us that there are some notable exceptions. Let us glance at a few of the most striking. Speaking of certain very special advances which have been made in surgery, the editors say that they have "evidently coincided with the introduction of what is known as Antiseptic Surgery"; and yet, in this "faithful mirror of the teaching and practice of surgery in England at the present day," there is no detailed description of the most approved mode of applying antiseptic or Listerian precautions, for Mr. Croft's brief remarks in Vol. I. can hardly be regarded in this light. In any other country the great master himself—Professor Lister—would doubtless have been solicited to supply such a chapter as that on the mode of treating wounds which bears his name; failing him one would like to have seen the chapter written by one of his pupils: for there is no more important chapter in the whole book than this. Surely Mr. Watson Cheyne might have been more usefully employed in writing a chapter on antiseptics than one on artificial limbs, although, as regards the latter subject, from the editor's point of view, Mr. Cheyne is no doubt a surgeon "of known authority on the topics in question." It is not a little curious that in this country there is no short authoritative exposition of the antiseptic method of dressing wounds, so that those who have not had the benefit of being Mr. Lister's pupils have no means of learning it otherwise than piecemeal. By a curious editorial arrangement, Professor Lister contributes the article on Anæsthetics. He is no doubt an "authority on the topic in question," and one far too high to suffer in any way from an expression of regret on our part that this very specialised subject was not placed in the hands of a man who devotes himself entirely to this branch of operative surgery.

The editors say, "Among the most important of the practical changes we may note the immense progress which has been made in the operative treatment of tumours and other affections of the abdominal cavity." We accordingly turn to the chapters on these subjects, again to find, truly, writers "of known authority on the topics in question," but not surgeons specially devoting themselves to the practice and study of abdominal surgery. The writers are of such celebrity, however, that we may safely repeat the spirit of our criticism on antiseptics. And firstly as regards Ovariectomy, the author of this article admits "that no impression can be more false than that



the extirpation of an ovarian tumour is a procedure requiring but little surgical skill or forethought, and making demands only upon the surgeon's courage"; that, on the contrary, "there is, perhaps, no operation in surgery presenting greater scope for ingenuity, and requiring more prompt attention to numerous details in its performance. Hence the remarkable success which has attended the operation in the hands of specialists as compared with that of other surgeons." Surely in the country where ovariectomy has practically been worked out and reduced to a system largely by the genius and perseverance of one man—Sir Spencer Wells—it might have been expected that the chapter upon it would have been written either by him or by one of his immediate pupils. Secondly, as regards "Renal Calculus and operations for its removal." This equally special subject is discussed briefly (in three pages) under diseases of the urinary organs. In this case too the author is a distinguished surgeon; but he does not speak on renal surgery with anything like the same weight as on calculus in certain other organs. It is to the abdominal surgeons in great part that we owe present advances in this department, and it would have been by them that these subjects could have been most usefully treated.

We may also allude in the same sense to the chapter on Osteotomy. Although specially mentioned in the preface, as among the most important of the practical changes made in this new edition, yet the whole subject, as applied "at the hip, knee, leg bones, and radius," is summed up in four pages. These are written not by a surgeon, but by a Fellow of the Royal College of Physicians—a gentleman whose name has long been honourably associated with orthopædic surgery, but who can scarcely be regarded as "of known authority" in this special department of practice. Again, the chapter on Injuries and Diseases of Nerves has, curiously enough, been entrusted to a foreigner, and, what is more remarkable, to an author whose views on some of the most important of the cerebral functions are considered heterodox, whose views, at any rate, differ from those held by most distinguished English neurologists—a poor compliment, we hold, to Englishmen, whose reputation in this department of professional work, whether as original workers or sound thinkers, stands second to none in the world.

We need not enlarge further on the selection of the authors of the various treatises. Enough has been said, we think, to justify the expression of our opinion that the "System" can hardly claim to be as perfect an exposition of the theory and practice of the English school of surgery as it might have been. We regret to find that neither Edinburgh nor Dublin nor any of the great provincial schools is represented amongst the authors; London alone has been thought worthy of this honour, and even there the distribution of work among the different hospitals is curiously unequal. Thus, St. George's Hospital contributes twenty-two articles—one more than Guy's, St. Thomas's, and University Hospitals, all combined; St. Bartholomew's contributes seven; King's, four; the London, two; and the Middlesex, nine articles.

With these preliminary and general remarks on the editorial arrangement of the work as a whole, we will pass on to a less invidious task—to the consideration of the individual volumes; confining ourselves in the present notice to volume the first. This volume opens with an article on Inflammation; or it would perhaps be more correct to say, with two articles on this subject—one by Mr. Simon, the other by Dr. Burdon-Sanderson. Mr. Holmes, though he edits the former, has left "the general article practically untouched," thinking that "it will not be without its use to the student of pathology to compare the doctrines of to-day with those of a previous though still recent period. . . ." Doubtless such study would be interesting, and edifying too, not only as regards this subject, but many others also; but it would have been more in accordance with custom, and better suited to the limited space at the disposal of the editors, to have referred readers to previous editions of the work, where the articles might have been read fresh from the pen of the writer, and without annotation of any kind. These articles, as they stand at present, are in many respects contradictory rather than supplemental of each other, though, as Dr. Sanderson does not enter into the subject of treatment, on that head our remark does not apply. Thus, Mr. Simon refers to "agents which, when in the blood, exert specific powers of textural

change, . . . acting after the manner of ferments." Speaking of their action, as contrasted with the effects of traumatism (which latter are believed to be due to the traumatism, pure and simple), he says—"But between the two cases there is this difference: in order that a stab or bruise or burn shall cause inflammation, no bodily predisposition (except the fact of being alive) is necessary; but in all living persons alike, on a certain quantity of the hurt, inflammation assuredly results; whereas, on the other hand, the morbid poisons are inoperative as exciting causes of inflammation, except where there is a definite bodily predisposition. . . ." Dr. Sanderson, on the other hand, founds his etiology purely on the results of experimental investigation; he says—"We must take as the basis of our inquiries what we have learnt by experiment and observation as to the way in which it begins when it is produced intentionally or accidentally by injuries of which we can measure and limit the action." And elsewhere, in summarising the results obtained from certain experimental investigations, he says that "very severe injuries may be inflicted . . . without producing any pathological effects in adjoining parts not destroyed by the direct action of the noxa, provided that the blood circulating in such parts is not contaminated," while "if septic products in sufficient quantity are present in the blood, injuries of much less intensity may lead to inflammation." Thus we see how these authors' statements disagree; in other words, how the present doctrines of inflammation contradict "those of a previous, though still recent, period," and how, as a natural consequence, the subject of treatment equally requires a thorough revision. Mr. Simon's article is nevertheless a very interesting one, and has a distinct merit of its own, though it is hardly fair to place it in this new edition, especially as Mr. Holmes's additions only make its rather antiquated views the more palpable.

Mr. Cripps's article on Abscess follows the lines of former editions. Reference is of course made to the presence of bacteria and allied organisms in pus. Acute inflammatory cedema of the neck—"angina Ludovici," as it should be called—is included in this article; but it would have been better to have kept such a specialised form of disease quite separate from abscess, and to have entered more fully into its etiology and clinical history in a separate chapter. Gangrene appears to have been completely re-written by Mr. Cripps. A very elaborate and well-considered article is the result. The author begins by classifying the varieties of gangrene very minutely, arguing that otherwise there can be no scientific basis for treatment. Thus we get four chief classes—idiopathic, frost-bite, traumatic, and specific septic gangrene. Each class has several varieties or subclasses. There is no fault to be found with such an arrangement, though we are inclined to think that the varieties run so nearly one into the other that the author will himself oftentimes be troubled to say in which class a given case should be placed. We think that noma vulvæ—a disease closely allied to, if not identical with, cancrum oris—should have been included in Class IV.

The chapter on Ulcers remains very much as it was in the former edition; and, considering that it was Sir James Paget who originally framed this article, we need hardly wonder that Mr. Butlin should have done little else but edit it. Nevertheless, with the advances made on all sides, there is much room for modification, not only in the arrangement of the different forms of ulcers, but in their pathology also. We feel a little doubtful as to the propriety of speaking of a "common, simple, or healthy ulcer, such an one as is left after the separation of an accidental slough in a healthy person"; for this is essentially a process of repair, while "ulceration has very near affinity to gangrene"; neither does it at all resemble a senile ulcer, or the chronic ulceration seen in the lower limbs of an old overworked washerwoman. Perhaps strumous ulcers and syphilitic ulcers would be better left out, and treated under their respective pathological causes. The old nomenclature is preserved; thus, among other varieties, the varicose ulcer, or, as it is here called, the hæmorrhagic ulcer, is mentioned, but we do not find the pathological description which shows what connexion there is between varicose veins and the ulcerative process. Ulcers, and very troublesome ones, often occur in association with varicose veins, but the exact pathological connexion has never, to our knowledge, been worked out. If Mr. Butlin's knowledge of minute pathology had been



brought, to bear on the subject, it is very possible that a more instructive classification and description of the process would have resulted.

The late Mr. Campbell de Morgan's article on Erysipelas is edited by Mr. Holmes, who, in classifying the disease according to its causes, speaks of symptomatic erysipelas, "the expression of some pre-existing constitutional disturbance." We could have wished for some adequate explanation of this peculiar condition; we fail to recognise it, and should be at a loss to account for the contagiousness of symptomatic erysipelas if the disease depended only or primarily on constitutional disturbance. Mr. Clutton deals with Pyæmia and Septicæmia in a brief but carefully written article. Fortunately, these diseases are becoming rarer each year, and will, we hope, soon be erased from our surgical diseases.

The article on Tumours, originally written by Sir James Paget, and edited by the late Mr. Moore in the second edition, is re-written by Mr. Butlin in this the third edition. No department of scientific work has undergone greater changes, as the alterations which appear in this article amply testify. In the classification of tumours, Mr. Butlin adopts the anatomical basis, because, "apart from any graver reason," the old clinical classification has gradually become more and more impossible, and the anatomical appears likely to lead to a more accurate knowledge not of the structure only, but of the life-history of tumours. The difficulties of this classification are referred to, and will be fully appreciated by those who have tried to reconcile all the facts. Time and study, however, may show that the anatomical basis is difficult to apply in all cases, simply because our knowledge of anatomy, especially of embryonic anatomy, is defective. It is chiefly in tumour-growth invading the generative apparatus that the anatomical difficulties present themselves, and it is especially with regard to the embryology of these same organs that our anatomical knowledge is most hazy. There are many drawings by the author, which are executed with the skill he is well known to possess, and which help to elucidate this especially difficult part of pathological surgery.

The articles on Tetanus, Scrofula, Traumatic Fever, are all interesting, but want of space prevents our entering into details. Chapters on Contusions, Wounds, Wounds of Vessels, are included with the foregoing under "General Pathology," instead of being arranged under "Local Injuries," which constitute Part 2 of this volume. We are a little at a loss to understand this arrangement, unless it is accidental. We must leave this part of the work to speak for itself. It is largely clinical, and each chapter is written by a distinguished surgeon, and represents the experience of a large hospital.

**THE INTERNATIONAL HEALTH EXHIBITION.**—The Executive Council is now meeting regularly twice a week, and a large general committee is also in course of formation. From among the members of the general committee the following sub-committees have been appointed:—1. The Dwelling; 2. Workshop and Factory Sanitation; 3. Food (raw materials); 4. Food and Cookery; 5. Heat; 6. School and Education; 7. Ambulance; 8. India; 9. Colonial. They will meet for the present at the rooms of the Society of Arts, and will have under their superintendence the arrangements necessary for securing the efficient representation of the objects of the various sections of the Exhibition.

**HOSPITAL SATURDAY FUND.**—At a meeting of the board of delegates of this fund, held on the 13th inst., it was reported by the Secretary (Mr. R. Frewer) that twenty-three of the London medical charities had agreed to receive life governors appointed by the board, and admit them to a share in the management of the institutions. On the motion of Mr. N. Hamilton Hoare, the hon. treasurer, it was decided that in no case should the fund be represented at any hospital or dispensary to which it contributed by more than three life governors, unless with the consent of the authorities of the institutions. It was resolved to distribute £8250, or £1000 more than the fund was enabled to disburse last year, to sixty-eight hospitals, thirty-eight dispensaries, five cottage hospitals, eleven convalescent and other homes, and two surgical aid and appliance societies.

## REPORTS OF SOCIETIES.

### THE OPHTHALMOLOGICAL SOCIETY.

THURSDAY, DECEMBER 13.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

#### A NEW METHOD OF MOUNTING AND CUTTING EYES.

MR. W. JENNINGS MILLES described the method of embedding eyes in celloidin without opening them; they were then cut with Katsch's microtome. The chief advantage of the new method was that sections of the whole eye could be made without disturbance of the mutual relations of its various structures.

#### ORBITAL TUMOUR.

DR. A. EMRYS-JONES showed a woman, aged fifty, from whose right orbit he had removed a small round-celled growth. It had recurred two months later, and again been removed, but the patient was now becoming cachectic.

#### PAPILLOMA OF THE CONJUNCTIVA.

MESSRS. G. A. CRITCHETT and H. E. JULER exhibited a girl, aged fourteen, with a small reddish mass on the conjunctiva, near the inner canthus of the right eye. It had been noticed for about five years.

#### PECULIAR AFFECTION OF CONJUNCTIVA.

MESSRS. CRITCHETT and JULER also showed a woman, aged thirty, in whose right eye the ocular conjunctiva was markedly thickened, the thickening encroaching on the cornea. Both cul-de-sacs were obliterated. It was attributed to a "cold in the eyes" nine months previously. The left eye showed an earlier stage of the same condition.

#### HERPES ZOSTER AND FACIAL PARALYSIS.

MR. WARREN TAY exhibited this patient. About three weeks previously the man had had swelling of the right side of his face, followed the next day by an eruption on the cheek. This occupied the area supplied by the second division of the fifth nerve, and partly that supplied by the first division. There was ulceration of the cornea. There was also right facial paralysis. There was slight diminution of sensibility over the area of the second division of the fifth nerve, but the faradic contractility was preserved.

DR. STEPHEN MACKENZIE thought that the ulceration of the cornea in this case could not be due to exposure, as it came on at the same time as the spots. Herpes zoster occurring with facial paralysis was rare, and the increase in the faradic irritability was noteworthy.

THE PRESIDENT said he had been much interested in the coincidence of herpes and facial paralysis; he had observed that occasionally motor as well as sensory areas were affected after herpes zoster.

#### BLINDNESS OF LEFT EYE AND DEAFNESS WITH RIGHT EAR AFTER A FALL.

MR. WARREN TAY showed a patient who, seven weeks earlier, had fallen down a ship's hold on to his head. He was picked up unconscious. On admission shortly afterwards, he was conscious. Blood was oozing from the left nostril and right ear; the left pupil was insensitive to light; there was no paralysis of the facial or any other nerve. There was fracture of the right lower jaw, and a laceration of the soft parts in the left fronto-temporal region. There was no subconjunctival hæmorrhage, and no serous discharge. Two days later it was ascertained that he could not see the light of a lamp with the left eye. On the eighteenth day after the injury the left optic disc was thought to be paler than the right. On the twenty-fourth day the left optic disc was certainly pale. At the time of the meeting (seven weeks after the injury) the left disc was uniformly white from commencing atrophy. He was markedly deaf on the right side. Mr. Tay proceeded to observe that statistics published by Hölder showed that injury to the optic nerve was very common in fracture of the base of the skull. Out of eighty-eight cases, the roof of the orbit was fractured in eighty cases, the optic foramen was injured in fifty-four cases, and blood was effused in the sheath in forty-two cases.



The mode of production of the nerve-atrophy was, as yet, by no means well understood, since the statistics just quoted could not be considered as throwing much light on this part of the question.

#### BACILLI IN JEQUIRITY INFUSIONS.

Dr. BRAILEY described the results of his observations in conjunction with Mr. Pidgeon. They found that bacilli began to develop about twenty-four hours after the infusion was made, and their presence could be recognised up to the fifteenth day.

#### EXTREME TORTUOSITY OF RETINAL VESSELS.

Dr. STEPHEN MACKENZIE showed a girl, aged twelve, with this condition especially well marked in the left eye. The patient had suffered from headache for about five years, but he would not express an opinion as to the connexion, if any, between this and the tortuous vessels.

#### ANÆMIA AS A CAUSE OF RETINAL HÆMORRHAGE.

Dr. STEPHEN MACKENZIE commenced a paper on this subject by narrating the following series of cases:—*Case 1.*—A female, aged twenty-nine, suffered from marked anæmia, due to repeated profuse hæmatemesis, caused by ulcer of stomach. Corpuscular richness fell to 42.9 per cent. Hæmorrhages were seen in the retina, disappearing with improvement in the quality of the blood. *Case 2.*—A female, aged thirty-six, also suffering from ulcer of stomach. Severe hæmatemesis, resulting in marked anæmia, occurred, and corpuscular richness fell to 44 per cent. Linear and flame-shaped hæmorrhages with white patches were seen in both retinæ, disappearing with the subsidence of anæmia. *Case 3.*—A female, aged twenty-nine, also the subject of ulcer of stomach, which caused severe and repeated hæmatemesis, and extreme anæmia. The corpuscular richness fell to 30.2 per cent., and the hæmoglobin to 23 per cent. Several hæmorrhages were seen in the left retina, and a white patch, possibly due to hæmorrhage, in the right. The hæmorrhages disappeared with the subsidence of the anæmia. *Case 4.*—A male, aged thirty-five, suffering from cancer of the stomach and progressive anæmia. No hæmatemesis occurred, but the corpuscular richness fell to 20 and 30 per cent., and the hæmoglobin to 30 and 15 per cent. Hæmorrhages occurred in both retinæ, and the man died. *Case 5.*—A female, aged sixty-one, the subject of abdominal cancer. Profound anæmia supervened, and the corpuscular richness fell to 46 and 28 per cent., the hæmoglobin to 30 and 20 per cent. Hæmorrhages were seen in both retinæ. *Case 6.*—A male suffering from scurvy. Marked anæmia supervened, and the corpuscular richness fell to 40.5 per cent., the hæmoglobin to 20 per cent. Recovery from the scurvy and anæmia was followed by disappearance of the retinal hæmorrhage.—The author thought that this series of cases justified the conclusion that the tendency to retinal hæmorrhage occurred when the corpuscular richness fell below 50 per cent., whatever was the cause of the anæmia. The fact that retinal hæmorrhage was so frequent in the form of anæmia designated by Addison "idiopathic," and which others called "progressive pernicious anæmia," was due, in his opinion, to the high degree of anæmia present in such cases (always below 50 per cent.), and not to its kind. The corpuscular richness might fall below 50 per cent. without retinal hæmorrhage taking place, but when this point was reached there occurred the tendency to hæmorrhages.

Dr. ANGEL MONEY briefly referred to a case of anæmia that had come under his observation, where at the post-mortem he had found retinal hæmorrhages.

#### TWO CASES OF SYMPATHETIC INFLAMMATION.

Mr. NETTLESHIP read notes of a case of iritis, probably sympathetic, coming on about a month after immediate excision of the other eye. The patient, a man aged forty-one, received severe contused wounds of the right eye and orbital parts in a railway accident. The injured eyeball was removed within forty-eight hours by Dr. C. W. Philpot. A good deal of suppuration occurred in the orbit afterwards. About a month later the remaining eye inflamed and became dim; and when the patient was seen by Mr. Nettleship, six months after the accident, there was moderately severe plastic iritis with much membrane. A month later the eye was much better, and the man was then lost sight of. He (the speaker) thought it most probable that the iritis was sym-

thetic, but that it was excited by the inflammation of the damaged orbital tissues rather than by the wounded eyeball itself. Mr. Nettleship also read notes of a case of destructive sympathetic inflammation, in which all the eyelashes of the sympathising eye became white, those of the exciting eye not being altered. The patient, a woman aged twenty-three years, ruptured the right eye by a fall; it was excised three months later. The other eye passed into a severe subacute condition of irido-choroiditis, ending in softening and almost complete blindness. All the lashes of both its lids became white. The exact date of onset in relation to the excision of the other eye could not be determined. The author compared the case with one which Mr. Hutchinson had described, where both eyes were lost by spontaneous irido-choroiditis, and many of the lashes became white. He thought that the cases favoured the theory—of late somewhat discredited—that the fifth nerve, or at least the ciliary nerves, formed the channel for communication of sympathetic inflammation from one eye to the other.

The PRESIDENT always regarded this blanching as of a neurotic origin, and mentioned a drawing he had in which a patch in each eyebrow was blanched. He also alluded to the case of a child, in whom, as the result of severe illness, probably of the nature of pityriasis rubra, the whole of the hair of the head had become white as well as a patch in each eyelid.

Mr. ADAMS FROST alluded to a similar instance recorded by Jacobi.

#### SYMPATHETIC OPHTHALMIA.

Dr. BRAILEY read a paper on the various sympathetic affections of the eye, and their bearing on the mode of transmission of sympathetic inflammation from one eye to the other. He defined the microscopic characters of sympathetic inflammation of the iris, ciliary body, and choroid, the first being involved, he believed, in every case, either alone or in association with one or both of the others. In the iris there were either clusters of cells in its middle layers, or a continuous infiltration of its thickened substance with cell-elements. There was also, in all but the milder cases, a thick exudation over all its posterior surface. Cells were formed also, either in clusters or in a continuous layer, on the lower part of the posterior surface of the cornea. The affection of the ciliary body and choroid was similar, only there was no exudation on the surface of the latter, while in the former it occurred on the internal aspect of the pars ciliaris retinæ. The inflammatory cells were situated in the middle choroidal layers, and in the connective-tissue layer of the ciliary body internal to the ciliary muscle. There were also cells round the blood-vessels of the papilla, extending thence along the central vessels of the optic nerve. He recognised also a pure sympathetic keratitis, and a pure sympathetic papillitis, both these being not uncommon, though difficult to identify. He also attributed certain uncomplicated cases of atrophy of the disc, of vitreous opacities, and even of retinal detachments, to sympathetic disease. He found the same diversity in the first eye. For, whereas the uveal affection was a pure iritis or irido-cyclitis, or irido-cyclo-choroiditis, in more than half the cases, it was a kerato-iritis in about 20 per cent., and a distinct iritis, with keratitis punctata, in about 30 per cent. He thought that this last form was really more common than these figures would indicate, as dots were in some cases found early, but not later, and, conversely, sometimes at the later stages only of the inflammation. The exciting condition might be also an eye shrunk after panophthalmitis, or even a choroidal sarcoma. Perforating wounds produced it in about 80 per cent. of the cases, and spontaneous inflammations in about 15 per cent. He found no relationship as regards the precise position of the disease in the two eyes, and argued from that, as well as from numerous cases in which the outbreak had been delayed even for one year after excision, against the theory of direct transmission, either by the optic nerve-sheath, or by the optic or ciliary nerves themselves. He thought that sympathetic irritation, whether producing pain or congestion only, might, owing to the unique relationship between the two eyes, so alter the nutrition of the second eye as to render it liable to spontaneous inflammations of any kind, and that such liability persisted after excision of the first eye, whether through the state of the sympathising eye itself, or of the centre of the fifth nerve. He thought that glaucoma could be produced sympathetically by glaucoma in the first eye,



and that it was a neurosis of the secretory nerves of the eyeball. He drew attention to the similarity between the pathological changes he had previously pointed out in this disease, and those found in Lewaschew in the lower limbs of animals after long-continued irritation of the sciatic nerve.

After a few remarks from Mr. G. A. CRITCHETT, further discussion on this subject was postponed owing to the lateness of the hour.

#### CEREBRAL HÆMORRHAGE WITH PASSAGE OF BLOOD INTO BOTH OPTIC NERVES.

Mr. PRIESTLEY SMITH said that he was indebted to Dr. Leslie Phillips for the opportunity of recording this case. Dr. Phillips had had charge of the patient during life, and had made the post-mortem examination. A man, aged thirty-eight, had a fall on March 8; the next day he had a fit, but showed no decisive symptoms until March 18, when headache began. On March 20 he vomited, his mind became clouded, and he was brought to the hospital with symptoms of intracranial pressure; the optic discs were examined with the ophthalmoscope, and found healthy. Insensibility increased, and at 4 a.m. on March 21 he had a fit and died. Post-mortem examination showed a large quantity of blood beneath the dura mater on the left side, proceeding from a recent hæmorrhagic cavity in the left frontal lobe, opening through a clean rupture of the cortex in the inferior frontal convolution. The optic nerves were distended: one was opened at once, and found to contain blood; the other was hardened in Müller's fluid. On longitudinal section, it was found to contain a blood-clot, the situation of which appeared to demonstrate the existence of two distinct spaces around the nerve—a subdural and a subarachnoidal—as described by Schwalbe. The blood lay entirely in the subdural space—the space which, from its situation beneath the dura mater, it would naturally enter. The subarachnoidal space of the nerve was distended with colourless fluid, probably cerebro-spinal fluid forced into it from the subarachnoidal space of the meninges by the increased pressure within the skull. The case, unfortunately, gave no evidence as to the ophthalmoscopic changes and visual impairments which might be caused by hæmorrhage into the nerve-sheath. The discs were examined eighteen hours before death, and then appeared healthy, but it was by no means certain whether the blood had, at that time, found its way into the nerves. One half of the nerve in longitudinal section, together with an enlarged drawing of the same, were exhibited.

#### MODEL ILLUSTRATING CONJUGATE MOVEMENTS OF THE EYES.

In this model, designed by Mr. PRIESTLEY SMITH, the eyes were represented by two discs of wood, covered with paper, and painted so as to represent horizontal sections of the globe; these rotated about their centres upon screws fixed into a black board. The motor apparatus, so far as horizontal movements of the eyes were concerned, was represented by silk threads attached to the sides of the wooden discs, like the tendons of the recti to the eyeballs; these passed backwards, as the nerves pass to the brain, each of the four nerve-trunks being represented by a double thread. Each thread then separated from the other thread of its own nerve, so as to represent the co-ordination in the brain, by means of which all motor impulses to the eyes were made bilateral. The brain-centres were represented by four brass weights hung upon the threads: one of these combined the threads coming from the two third nerves, and produced movements of convergence; another combined the threads coming from the two sixth nerves, and produced movements of divergence; the two others combined, in each case, a thread from the third nerve of one eye with a thread from the sixth nerve of the other eye, and produced conjugate movements to the right and to the left respectively. The model being placed in a vertical position, it was easy, by pressing upon one or other weight, or upon two simultaneously, to imitate any compound movement of the eyes in the horizontal plane. Mr. Priestley Smith said that the model had been found useful in class-demonstration. It served to explain the occurrence of conjugate deviations in hemiplegia. It showed how one and the same muscle might be paralysed for conjugate lateral movement, and at the same time active for convergence, or *vice versa*. It illustrated how it was that an ordinary convergent squint, though a bilateral affection, was transferred at will from one eye to the other, and thus manifested in one eye only at a time.

## THE CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 14.

Sir ANDREW CLARK, Bart., President, in the Chair.

THE PRESIDENT referred to a suggestion, made by himself at the previous meeting of the Society, that a committee should be formed to investigate the subject of Myxœdema, and more especially its pathological connexion with disease or removal of the thyroid gland. The Clinical Society had been the first to work upon the subject, and he considered that it should maintain its hold at the present time, with which object he nominated the following physicians and surgeons to form a committee of investigation:—Sir W. Gull; Drs. Ord, Semon, Cavafy, Goodhart, Mahomed, and Hadden; Messrs. Godlee, Durham, Haward, Sydney Jones, and Pugin Thornton.

#### PNEUMOTHORAX OCCURRING DURING TYPHOID FEVER.

Dr. CAYLEY read the above paper. The patient, a girl, aged fourteen, was admitted into the London Fever Hospital April 26, on the eighth day of a severe attack of typhoid fever, characterised by great prostration, muttering delirium, muscular twitchings, pulmonary congestion, and severe diarrhoea. She was treated by cold baths and occasional large doses of quinine. On May 9, when apparently convalescing, signs of pleurisy of the right side appeared, and on May 13, pneumothorax with very severe dyspnoea and symptoms of collapse. The chest was twice punctured, and air escaped with a hissing sound. The second time a few drops of pus also came through the trocar. She gradually improved, and by June 20 the signs of pneumothorax had disappeared. The author mentioned a case which had been reported by Dr. Gairdner, and said that the probable cause was the breaking down of an embolism of the lung.

#### CASE OF COMPLETE RECOVERY FROM IDIOPATHIC PNEUMOTHORAX, WITHOUT EFFUSION OF FLUID.

Dr. SAMUEL WEST, at the desire of the President, read a paper on the above subject. A. B., male, aged twenty-four, had right pneumothorax, probably due to rupture of a small phthisical cavity. He was aspirated and relieved. Amphoric breathing and bell-sounds were audible over the whole side, but slowly disappeared, the bell-sound going first; and the patient recovered. In one month the bell-sound had disappeared, and in six weeks all trace of amphoric breathing. Healthy respiratory sounds were audible over the whole side, and the patient was discharged well. He has continued well for a year since. Points of interest were discussed:—1. The question whether the orifice was patent for some time or not. 2. The cause. 3. The occurrence of subcutaneous emphysema after paracentesis. Why does pneumothorax not occur often after fractured rib? 4. Records of twenty-four other cases of complete recovery, with short analysis of them.

The PRESIDENT asked whether any effect had been produced upon the subsequent course of the disease in the lung? He referred to two cases, both females, in which the occurrence of pneumothorax in the course of phthisis had checked the progress of the latter disease.

Dr. S. WEST inquired whether any signs of phthisis had been present in Dr. Cayley's case. In his own case the presence of phthisis could only be inferred, and thus the effects of the pneumothorax upon it were doubtful.

Dr. CAYLEY replied in the negative.

Dr. MAHOMED, referring to the pathology of these cases, stated that he had frequently seen lungs in typhoid fever apparently on the brink of rupturing, and so setting up pneumothorax. The appearance of these lungs was characteristic. Prolonged rest and imperfect expansion of the bases of the lungs led to a condition of splenisation, only occurring in cases of long-continued fever, and in some instances accompanied by dilatation and inflammatory softening of the walls of the tubes. These softened points, often containing pus, might sometimes be seen through an almost transparent pleura, so closely were they situated to the surface of the lung. A cough or other simple strain might at any moment cause their rupture. In Dr. Cayley's case, which had been for a time under his own care, there was severe bronchitis; but the recovery from the pneumothorax was complete. The rapidity of recovery in such cases, as



compared with those of fluid effusion in the pleura, was probably to be attributed to the freedom from adhesions binding the lung down, and also to the shorter time during which the lung underwent compression. The displacement of the heart he considered to indicate increased intrathoracic pressure. In cases of fluid effusion he believed that a pressure equivalent to seventy millimetres of mercury was necessary for such displacement, and probably a somewhat similar amount was required in pneumothorax. Treatment by tapping was in such cases most important, complete recovery often resulting from the relief afforded.

Mr. JONATHAN HUTCHINSON, looking at the subject from a surgical point of view, considered that pneumothorax as a result of fracture of ribs was not so rare as had been supposed. He had himself seen a considerable number of cases in which the question of tapping had arisen. In two instances life had been saved by prompt withdrawal of the air. Usually he had not advised it until considerable dyspnoea was present; in many cases absorption was slow, but it was usually satisfactory in the end. He would prefer to postpone tapping until late, unless urgently called for, believing that the cases generally did well without operation.

Mr. HERBERT PAGE, whilst agreeing with Mr. Hutchinson, mentioned a case of extreme dyspnoea and collapse due to pneumothorax from fractured rib, which obtained the most marked relief from the removal of the air four hours after the injury. In this case the re-expansion of the lung and the return of the heart to its normal limits could be clearly made out during the operation. The evacuation of air having been incomplete at first, two subsequent tapplings were performed. No harm, except slight bleeding, appeared to result, and recovery was absolute.

Mr. PEARCE GOULD gave details of a case under his care, in which rupture of the lung had taken place from violence, without any fracture of ribs. Tapping with a plain trocar was performed for the relief of the extreme dyspnoea: the lung at once expanded, and complete recovery followed, no sign of pneumothorax being discoverable.

Dr. MACLAGAN related a case similar to the last. A gentleman, aged twenty-three, was thrown violently against the trunk of a tree whilst hunting. No fracture of ribs took place, but the left pleura was filled with air from rupture of the lung. Tapping was suggested, but not performed, and the patient recovered completely in two months. He was a man with a very broad chest; and Dr. MacLagan was of opinion that the severity of these cases was generally commensurate with the capacity of the chest, many persons being provided with a much larger lung-area than is really essential to healthy respiration.

Mr. SYMONDS mentioned the case of a man of cachectic appearance and intemperate habits, admitted a few years ago into Guy's Hospital for some trivial surgical affection, in whom a sudden attack of dyspnoea, due to right-sided pneumothorax, had threatened life. Immediate evacuation of the air from the pleura by means of a simple trocar gave instant relief. The air in this case rushed out with great force through the canula. The patient subsequently died, and no cause could be found for the previous pneumothorax, except on the supposition of the rupture of an emphysematous vesicle.

Dr. J. K. FOWLER took exception to some of Dr. Mahomed's remarks on the increased pressure within the pleura in these cases, and mentioned that Dr. Douglas Powell had shown that the displacement of the heart was due rather to the dragging action of the other lung than to active pressure from its own side of the chest.

Dr. MAHOMED explained that the increased tension of which he had spoken was present in a large number of cases, though not in all. He considered that the forcible discharge of the released air through the canula, to which several speakers had referred, proved the truth of this.

Dr. F. TAYLOR asked for information as to the occurrence of pneumothorax in acute pneumonia. He referred to the case of a young man in whom the signs and symptoms of acute pneumonia were followed by those of pneumothorax. Absorption of the air took place after a few days, and the symptoms due to its effusion subsided. A year later hæmoptysis occurred, and tubercular disease showed itself. There was no doubt, however, that the starting-point had been a genuine pneumonic attack.

Mr. R. J. GODLEE thought that the question of the time for operative interference was of importance. How long

should we wait? In cases due to injury it was probable that the wound of the lung became very rapidly closed, and he thought that the best course was to evacuate the air immediately after allowing reasonable time for the closure to take place. It was important to avoid long-continued pressure upon the lung. In some cases, as in Dr. Cayley's, pus was absorbed at the same time as the air, and, although this might take place frequently in children, it did so far less often in adults.

Dr. ANGEL MONEY, referring to Dr. Taylor's question, mentioned a case in which tympanitic resonance had accompanied acute pneumonia without being due to pneumothorax.

The PRESIDENT stated that, in his own experience, a tympanitic note was almost always present at the upper part of the chest in cases where rapid and excessive exudation had taken place.

Dr. F. TAYLOR added that the bell-sound had been present in his case, and several other symptoms had rendered the diagnosis of pneumothorax certain. He was perfectly familiar with the class of cases referred to by the President and Dr. Money.

The PRESIDENT, in response to a request by Dr. Felix Semon, related the particulars of a case under his care, in which the symptoms of phthisis had undergone marked relief for eighteen months in consequence of the occurrence of pneumothorax. The chest having been tapped, against his wishes, and the pleura emptied of air, the symptoms of phthisis again increased, and the disease steadily progressed to a fatal termination.

Dr. CAYLEY, in reply, thought that Dr. Mahomed's explanation of the mode of occurrence of pneumothorax in typhoid was correct.

Dr. SAMUEL WEST, in reply, maintained the view that he had expressed, that pneumothorax in consequence of injury to ribs was comparatively, if not positively, rare. Such cases were but few in surgical literature, and he would ask Mr. Hutchinson what, in his experience, was their proportional frequency. In fevers it was difficult to rely upon other signs than those of displacement of organs. Hyper-resonance might be common to several conditions. With respect to the degree of tension within the pleura, he thought that far less than that of seventy millimetres of mercury would be sufficient to displace organs. The retraction of the lung was the chief factor, and it had been shown by Donders that seven millimetres of mercury sufficed in such cases. The operation of tapping must sometimes be undertaken in order to save life, but usually the cases did well after the first shock. Pneumothorax might occur as an accident in the course of phthisis, and, from the point of view of treatment, might often be disregarded. In reply to the President, he said that while having no objection to urge against the use of a fine needle for evacuation of air, he thought that unless an operation were necessary it had better not be performed.

The PRESIDENT, replying to Dr. Taylor, said that in cases of the discontinuous form of caseous pneumonia, pneumothorax was occasionally set up by the melting of caseous deposits very close to the surface of the lung.

#### CASES ILLUSTRATING THE RELATION BETWEEN LABIAL HERPES AND RIGOR.

Mr. CHARTERS J. SYMONDS read notes of cases illustrating the relation between labial herpes and rigor. His attention was first called to the connexion between the phenomena by a personal experience in 1880. After unusual exercise in the open air, a severe rigor lasting five hours, followed by profuse sweating, ensued. The temperature reached 105° Fahr. The next day no ill effects were experienced, and the health was as good as usual. Two days after the attack an abundant crop of herpes appeared on the lips and tongue, unaccompanied by any other symptom. The factors considered to be acting in producing this attack were—fatigue, exposure to the sun (the air, however, being only moderately warm), a sensation of dread experienced when about to plunge into the water from a boat, followed by undue chilliness. Other cases in which a rigor preceded herpes were given, viz., ague, operations on the urethra, crysipelas—i.e., to show that there was nothing peculiar to the form of disease, and that therefore the eruption had no special connexion, as seemed to be thought, with pneumonia, but indicated that this disease had come on suddenly



and severely with a rigor. From these facts it was considered that labial herpes was directly due to the rigor. It was also pointed out that the accompanying pyrexia was not alone sufficient to produce the herpes, as the latter was absent in many well-known febrile affections. Again, herpes did not appear after every rigor. Some other factor, therefore, appeared to exist, but what this was remained in doubt. It seemed equally difficult to explain why the second and third divisions of the fifth nerve should be specially selected, its occurrence over the distribution of the first being rare. It was pointed out that with a common "cold sore" there was always some chilliness, and that perhaps, in those cases where the herpes exists without catarrh, some unrecognised cause, such as fatigue, may have acted; or that this eruption may be a disease of itself, attended with its own fever and rigor. Verneuil was referred to as describing a traumatic herpes. It was suggested, in conclusion, that a rigor is a necessary precursor of labial herpes, but that some factor other than pyrexia is associated with it. The author also inquired as to how far simple fatigue might be considered to be a cause of rigor, or of more severe affections.

Dr. LONGHURST referred to the dietetic causes of herpes, and inquired if the food taken could in any way account for it in the present case.

Dr. HALE WHITE pointed out that physiologists had determined the existence of a cortical controlling centre for heat-production on the anterior surface of the brain, and this must be regarded as a trophic centre. The lesion in Mr. Symonds's case was essentially of a trophic nature, and he suggested that a central cause might be found for it.

Dr. RADCLIFFE CROCKER had had abundant opportunity of observing and teaching the connexion between herpes and rigor. But herpes might occur in other conditions also, as at the close of fevers, or in acute gastritis. In pneumonia it was generally present in the most acute and rapid cases. It might appear elsewhere than on the lips. As a concomitant of general catarrh it might be due to the direct influence of cold upon the fifth nerve.

Dr. FELIX SEMON, having had exceptional opportunities of studying the phenomena of relapsing fever during an epidemic in Berlin, had observed 160 cases, in each of which from three to five relapses had taken place, making thus at least 320 rigors. In only ten or twelve of these cases had any herpes been present.

Dr. FREDERICK TAYLOR had observed the occurrence of herpes in a few cases of relapsing fever.

The PRESIDENT observed that the influence of the nervous system had been rather left out of sight in the discussion. Other forms of skin eruption were well known to be associated with emotional states, and possibly the phenomena in Mr. Symonds's case might also be thus accounted for.

Dr. MACLAGAN remarked that rigor also might arise from very slight emotional causes, especially in children. It was probable that in the present case the nervous system was very much depressed.

Mr. JONATHAN HUTCHINSON, whilst acknowledging the value of the careful observations made by the author, maintained that the connexion between rigor and herpes had been fully recognised and taught for twenty years. The theory of causation of rigor itself was less clearly proved; it had usually been attributed to a condition of general arterial spasm. Surgeons had more practical experience of it, perhaps, than physicians. The rigors, at times of dangerous severity, which followed the use of catheters were often accompanied by herpes, and the latter was generally proportionate in its extent to the intensity of the rigor. Herpes was symptomatic of several conditions, but its connexion with rigor was undoubted.

The PRESIDENT remarked that the theory of rigor mentioned by Mr. Hutchinson had been first propounded by Dr. Cullen.

Mr. SYMONDS, in reply, stated that he had not brought the subject forward as something new, but rather with the hope of obtaining information on the relation of rigors and herpes to conditions of fatigue. He could not state what dietetic influence might have been at work in his own case.

Living Specimens of Charcot's Joint-Disease of Elbow and Ankle, by Mr. CLEMENT LUCAS; and of Fractured Patella, treated by the immediate application of plaster-of-Paris bandage, which was removed after twelve weeks, by Mr. CHRISTOPHER HEATH—were shown before the meeting.

Dr. Finlay and Mr. Pearce Gould were appointed auditors.

## THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 18.

J. W. HULKE, F.R.S., President, in the Chair.

### QUIET NECROSIS.

Dr. F. C. TURNER showed a greatly enlarged tibia of a woman, aged sixty-seven, in longitudinal section. In the upper part of the bone, where the enlargement was greatest, there was a central sequestrum in a smooth-walled cavity, at the lower end of which was an opening communicating with the surface of the bone, on its inner side. This channel was not visible until the periosteum was removed. There were no adhesions between the bone and the skin at this part, and no scar was seen. The bone consisted almost wholly of cancellous tissue, and was bowed forwards by a backward bend just above the middle of the shaft. There were bony outgrowths from the surface of the shaft at the upper part and along its internal aspect. The specimen was regarded as one of latent necrosis without inflammation of external parts, described by Sir James Paget in the *Transactions of the Clinical Society*, vol. iii., and as illustrating the views of Mr. Marrant Baker, in the *Medico-Chirurgical Transactions*, vol. lx., as to the occurrence of necrosis without suppuration, consecutively to osteo-sclerosis in bones enlarged by a general osteitis.

Mr. BOWLBY referred to a case of osteitis deformans that he had shown last year, in which there was a single sequestrum. He thought it was unusual for sequestra to form at the age of this patient. The disease was of some standing; could not have been recent. Periosteum was not adherent, nor was it in osteitis deformans. The thickening was seen to be over a greater length of bone than in osteitis. He did not think that the bone had been in this condition a very long time. He suggested maceration of one half of the specimen.

Mr. MORRIS thought that cases of central necrosis were not very rare. The absence of an external sinus was explained by the absence of active symptoms, though pain might have existed a long time. In such cases, on operation, a little deep-seated pus was often found.

Mr. SYMONDS said this was certainly not osteitis deformans. The bone was not uniformly enlarged; he would call it a "condensing osteitis." He thought it was of very long standing; it was a form that did not lead to suppuration. The cancellation was due to a natural moulding of the bone.

Mr. SILCOCK asked if there was any syphilis.

The PRESIDENT considered that this was quite distinct from osteitis deformans. He asked if the sclerosis of bone was due to a cutting off of the blood-supply.

Dr. F. C. TURNER said it was an essentially atrophic condition, and, as in osteoporosis, due to defective blood-supply. He had no history of the case whatever.

### MELANOTIC SARCOMATA OF SKIN.

Dr. J. WICKHAM LEGG showed a drawing of the skin of a man who had had sarcoma of choroid, for which the eye had been removed. The face was noticed to be dark six months before death—not patchy, quite uniform; mucous membrane not affected; chiefly of the face, neck, and hands; resembling nitrate of silver staining, but no history of this could be obtained; and this was confirmed by Mr. Taynton, his ordinary medical attendant. Sections of the rete mucosum showed pigmentation of young cells in the lower part—in patches, not universal. He regarded it as a rare occurrence. He supposed the cause of this was the same as the pigmentation of the nodules. White blood-corpuscles were in decided excess, red blood-discs large and pale, and intermediary corpuscles were present; no granules were found in the blood, urine, or vomit. Supra-renal bodies natural.

The PRESIDENT had never seen anything like this in melanotic sarcoma. He remarked that in these cases there was often defect of pigment in parts where pigment was normally seen.

Mr. BUTLIN suggested that the pigment was taken up by skin instead of passing into the blood, urine, fæces, and vomit, as had usually been found to take place in previously observed cases.

Dr. S. MACKENZIE referred to a case of his own—a man



very dark-complexioned. Every organ of the body was studded with little ink-like spots. Pigment was deposited in those parts in which it naturally accumulated.

### THREE CASES OF TUBERCULAR DISEASE OF THE TONGUE.

Mr. R. J. GODLEE read the notes of these cases. 1. Man, aged thirty-eight; delicate, tubercular aspect; had had fistula in ano, and was subject to asthma and also to pleurisy. Both testicles were tubercular. He had a round ulcer at the tip of his tongue, with raised hard edges and a grey surface, very painful, and much irritated by the teeth. The teeth were first attended to, and then iodoform and stimulating lotions were applied to the ulcer. Nitrate of silver was applied once a week with good result. The patient went to New Zealand, and returned with the ulcer healed and the asthma gone. Soon after his return the ulcer broke out again, and became worse than before. Death occurred from pneumonic phthisis eighteen months from onset. No suspicion of syphilis, and no sign of consolidation of lungs was detected at first. 2. Man, aged thirty-three, who had had phthisis for two years advanced, also some affection of right sacro-iliac articulation. The tongue was much swollen in anterior half of right side, the swelling being elastic and soft, and the surface of the swollen part covered with a superficial ulceration. No history of syphilis; but antisyphilitic remedies were tried, without avail, except salivation. The tongue was punctured, and afterwards a free incision was made into the mass, but led to no result. The wound healed, but the man died soon afterwards. There was found recent pneumonia, and suppuration of the sacro-iliac joint. The nodule in the tongue was quite diffuse, and seemed made up of pale and thickened tongue-tissue. Microscopically, distinct tubercles were found, and bacilli in large numbers near the surface. 3. Man, aged twenty-two, who had had a cough four or five years, and slight attacks of hæmoptysis. In February, 1882, he had an ulcer of the tongue, and consulted Mr. Heath. At first there was a pimple, and then a crack; these ran together, and began to be irritated by the teeth. A gutta-percha shield was applied to the teeth. Chromic acid and nitrate of silver were employed. The condition of things had much improved, but the ulceration had destroyed the tip of the tongue. He was in fairly good health, and there was no mischief in the lungs at the present time. The tubercular affection of the tongue had probably until recently been taken for syphilitic lesion. —The cases described illustrated two conditions: an infiltration amongst the muscular fibres of the organ, accompanied by more or less ulceration; and an ulcer of the tongue, accompanied by a slighter amount of underlying infiltration. It was probable that these did not complete the tubercular diseases of the tongue, for others presenting a good many differences as to site and appearances had been enumerated. Possibly the extensive ulceration about the soft palate and the back of the tongue in strumous children would have to be included in the category. For the present our duty seemed, he said, to be to record carefully all cases coming under observation, giving as far as possible the evidence for the tubercular nature of the disease, and leaving any wide generalisation until a larger mass of facts was available.

Mr. CHARTERS SYMONDS related a case (and exhibited a specimen and sections) of tubercular ulcer of the tongue. It occurred in a man aged fifty, the father of seven healthy children, who had been in good health up to nine weeks before he was first seen. Then he caught cold, and since had been ailing. He complained chiefly of difficulty in swallowing, having for some weeks been unable to take solids. He had lost flesh to the amount of two stone. The ulcer was situated in the centre of the left half of the tongue. In shape it resembled a leech-bite, being composed of three fissures running from a central point. The edges were sharp, and but slightly hard; the sides vertical and deep. On separating the edges a considerable cavity was exposed, with undermining of the sides. The colour was grey. It was not painful. No induration existed around the ulcer, and no glandular enlargement. He was placed upon an abundant fluid diet, and given iodide of potassium. The epiglottis, by means of the laryngoscope, was found healthy, as well as the vocal cords, though his voice was deep, and had changed to this tone of late only. A bougie could be passed into the stomach also, encountering a slight obstruction

half-way down. He improved at once in appearance, and felt stronger, although his weight remained the same. He was able in a week to eat chicken finely minced, and in a fortnight to take solids in the ordinary way. A cough, which had been causing him trouble, now became serious, and grave symptoms appeared, gradually getting worse till September 8 (one month after admission), when he was drowsy and had difficulty in breathing. The temperature rose to 103.4°, and pulse to 132, while mucous râles were heard over the left base. The signs and symptoms of acute pulmonary disease gradually increased, and he died on the 10th, having been seriously ill only a few days. At the autopsy, acute tuberculosis of the lungs was found to be the cause of death. The œsophagus was pouched and dilated, but not strictured. The larynx also was healthy. The appearance of the ulcer was recognised as peculiar, and belonging neither to the syphilitic nor epitheliomatous. Mr. Bryant, however, who saw the case early, called it tubercular at once. The œsophageal obstruction, taken in connexion with the tongue-affection, supported the syphilitic view, as did the rapid improvement in swallowing which followed the administration of antisyphilitic remedies. The ulcer, however, underwent no improvement, nor did the man increase in weight, though he was able to take large quantities of food. The ulcer probably preceded the pulmonary affection by two or three weeks, for the man says that when first noticed the place would admit his thumb. This he noticed a week after he caught cold. Microscopical examination of the ulcer showed its tubercular nature. Many nodules of small cells were scattered round the ulcer, the compressed and wasted muscle forming a definite boundary. The cells showed the appearances usually seen in tubercle. Giant-cells were present, but were scarce. The microscopical appearances indicated rapid growth and early caseation, and in these respects differed from those seen in the case published by Mr. Bryant in the *Guy's Reports* for 1882.

Mr. JESSETT showed a man, aged fifty-four, who had an ulcer of the tongue. Family history good. History of syphilis twenty years previously. His children, however, were all healthy. He had been ailing with a cough since November, 1882. In March, 1883, he noticed a sore on left side of tongue, due (?) to irritation of pipe; he had had similar sores before, which got well with nitrate of silver. He came under observation with an ulcer three-quarters of an inch by half an inch on left side of tongue, and some signs of early phthisis in lungs. He had not improved under antisyphilitic treatment. No enlargement of the glands.

Dr. THIN had examined sections of Mr. Barker's specimen of ulcer of the tongue. Bacilli were plentiful near the free surface; they were crowded together in certain localised parts, not deep seated. This was not due to any staining changes. They were contained in small cells, white blood-corpuscles; others in epithelioid cells. Numbers appeared to be free, but he was not certain that they were not really in cells. They were grouped near the free surface of the ulcer. In his view a giant-cell was a bloodvessel with thickened walls and granular matter in the centre. He had found bacilli in two of these, deeply seated; they, in fact, formed a soil in which these bacilli could grow. Scrapings of an ulcer ought to yield bacilli if the affection were tubercular, and would therefore be valuable in a diagnostic point of view.

Mr. BOWLBY showed two specimens of ulceration of the tongue. 1. Boy, aged nineteen; had suffered for two years. Dorsum of tongue showed a large, ragged, irregular ulcer; edges overhanging; it spread to soft palate and arytaeno-epiglottidean folds. Signs of phthisis in lungs. Tonsils natural. Death two months later. Cavities in right lung; tubercles in both lungs; glands under jaw considerably enlarged and painful. 2. Man, aged thirty-seven; ulcer of tongue for eight months. Death from phthisis. At first there was a tendency to heal. He alluded to two cases published by Billroth. Both patients died of tuberculosis, though there was some tendency of the ulcer to heal.

The PRESIDENT observed that no doubt these cases must have been seen, but not recognised. There appeared to be two forms—one gummous thickening, followed by ulcer; the other, ulceration from the first. One of these ulcers was in a sloughing condition. Extreme chronicity was the most important diagnostic feature. The bacilli were near the surface of the ulcer, and therefore might have crept in



from without; then they were seen in leucocytes—a point of some importance.

Dr. ORMEROD, referring to Mr. Bowlby's first case, said the ulcer was far back and V-shaped. No definite physical sign in lungs at that time.

Mr. BUTLIN also recollected this case. It was not difficult to diagnose. Syphilis or cancerous disease was clearly out of the question. He believed that Mr. Godlee had under-estimated the difficulties of diagnosis. Dr. Thin's remarks had interested him very much, especially as he had often scraped ulcers in epitheliomatous affections, and been thereby enabled to make a diagnosis.

Mr. BARKER, at the last meeting of the Society, had referred to all the recorded cases—fifteen in number. Eleven were males; half were above the age of forty-seven, none at a very early age, eighteen being the earliest. In four, perhaps five, cases no disease of the lungs could be recognised when the tongue was affected; in two of these the tongue was excised, and the patients recovered. He suggested that the ulcers might take up the bacilli from the sputa, and begin simply from irritation of a tooth.

## MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent examinations:—

### M.D. EXAMINATION.

*Entire Examination.*—Edwin Leonard Adeney (Gold Medal), Guy's Hospital; George Frederick Barnes, St. Bartholomew's Hospital; Dudley Wilmot Buxton, B.S., University College; William Chisholm, B.A. Sydney, University College; David Collingwood, B.S., University College; William Radford Dakin, B.S., Guy's Hospital; Edward Alfred Dingley, University College; John Thomas Faulkner, Owens College and Manchester Royal Infirmary; William Eckett Fielden, Guy's Hospital; James Harper, St. Bartholomew's Hospital; Thomas Harris, Owens College and Manchester Royal Infirmary; John Davey Hayward, University College; John Edward Hine, University College; Robert Jones, St. Bartholomew's Hospital; Henry Maudsley, B.S., University College; William Henry Neale, B.S., University College; Arthur Edward Permewan, University College; William Sellers, University of Edinburgh and London Hospital; Lauriston Elgie Shaw, Guy's Hospital; Samuel Walter Sutton, B.S., St. Thomas's Hospital; Harold Gilbertson Taylor, King's College; Robert Spencer Wainwright, Guy's Hospital; Frederick Rufenacht Walters, B.S., St. Thomas's Hospital; Alfred Ernest Wells (obtained the number of marks qualifying for the Medal), St. Thomas's Hospital.

*Logic and Psychology only.*—David Samuel Davies, St. Thomas's Hospital; Henry Hoole, Charing-cross Hospital; Hubert Montagu Murray, University College; Reginald Pratt, University College; Tom Henry Sawtell, St. Bartholomew's Hospital; Henry Smith, St. Bartholomew's Hospital.

### M.S. EXAMINATION.

William Arbuthnot Lane, Guy's Hospital.

### EXAMINATION IN SUBJECTS RELATING TO PUBLIC HEALTH.

Louis Coltman Parkes, M.D., University College.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special examination for the Licence in Midwifery, held on Monday, December 3, 1883, the following candidate was successful:—

Richard Henry Dowse, M.B. Univ. Dub., Enniscorthy.

At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 10, 11, 12, and 13, the following candidates were successful:—

*To Practise Medicine.*—John Charles Aldred, Sheffield; Fred. William Allwright, Sydney-parade, Dublin; John Bernal, Limerick; Henry Joseph Butler, Dublin; Henry Wilkinson Carr, Kilburn, London; Robert Hampden Clement, Glenageary, co. Dublin; Cornelius Daly, Charleville, co. Cork; Quintin Richard Darling, Kinsale, co. Cork; Patrick Thomas Dillon, Listowel, co. Kerry; John Greenhalgh, Northenden, Manchester; William Byron Hanbridge, Ogdensburg, New York; John M. Prior Kennedy, Dublin; William Nolan, Dublin; William Hewes Oliphant, Toronto, Ontario, Canada; Francis Helen Prideaux, London; William Swanson Sprent, Gargrave, near Skipton, Yorks.

*To Practise Midwifery.*—John Charles Aldred; John Bernal; Edward Coey Bigger, M.D. R.U.I., Belfast; Henry J. Butler; William Calwell, M.D. R.U.I., Belfast; Henry Wilkinson Carr; Robert Hampden Clement; William Archibald, M.D. R.U.I., Killane, co. Clare; Quintin Richard Darling; Archibald Alexander George Dickey, M.D. R.U.I., Raphoe, co. Donegal; David Peter Gausson, M.D. R.U.I., Holywood, co. Down; John Greenhalgh; John Murray Prior Kennedy; William Nolan; William Swanson Sprent; Arthur Jalland Stiles, M.B. Edin., Spalding, Lincolnshire; Edward Copley Ward, M.D. R.U.I., Charleville, co. Cork.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, pursuant to the provisions of the Supplemental Charter of December 12, 1878, have been duly enrolled Members of the College:—

Robert Francis Buchanan, L.M. 1864, Surgeon-Major A.M.D.; Richard James Sweetnam, L.M. 1864, Staff-Surgeon R.N.

The undermentioned candidate was, after examination, granted the Licence as a Midwife and Nurse-tender:—

Sarah Anne Hemmings, Stevens' Hospital, Dublin.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—At the Michaelmas Term Examination for the degree of Bachelor of Medicine (M.B.), held on Monday, December 3, and subsequent days, the successful candidates were arranged in the following order of merit, viz.:—

Charles Herbert Thompson, Harloe Henry Fleming, Richard Miller, Charles C. de Burgh Daly, Randolph Kilkelly, [William Nedham Denning, Glascoth Hardy Symes—equal], Victor Edwin Smith, Richard Nunn.

At the Michaelmas Term Examination for the degree of Bachelor in Surgery (B.Ch.), held on Monday, December 10, and subsequent days, the candidates passed in the following order of merit, viz.:—

Arthur F. Geoghegan, Richard Miller, [George M. Dobson, William Fenton, Glascoth Symes—equal], Charles C. de Burgh Daly, Richard Nunn, Henry McQuade, William Nedham Denning, Robert H. Fleming, Robert E. Sproule, Henry E. Blandford.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 13:—

Bradbrook, William, Green-street, E.

Walton, Francis Fielder, Mason-street, Hull.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bennett, Edwin Alfred, Cornwall-road, Bayswater.

Ward, John Smallwood, Lisburn.

## APPOINTMENTS.

AUDLAND, W. E., L.R.C.P., M.R.C.S.—Assistant House-Surgeon to the Northampton General Infirmary, *vice* — Smith, resigned.

CHURTON, T., M.D.—Consulting Physician to the Batley and District Cottage Hospital.

CLARKE, W. BRUCE, M.B. Oxon., F.R.C.S.—Assistant-Surgeon to St. Bartholomew's Hospital, *vice* James Shuter, F.R.C.S., deceased.

EVANS, WILLIAM GEORGE, M.R.C.S., L.R.C.P.—Sambrooke Surgical Registrar at King's College Hospital.

EVE, FREDERICK S., F.R.C.S.—Assistant-Surgeon to the Royal Free Hospital, *vice* James Shuter, F.R.C.S., deceased. Also, Surgical Registrar to the London Hospital.

GIDDINGS, R. R., M.B. and C.M. Edin., M.R.C.S.—Junior Surgeon to the Nottingham Dispensary.

JOHNSTON, F., M.B.—House-Surgeon's Assistant to the Liverpool Northern Hospital, *vice* — Horrocks.

MASON, SAMUEL R., M.D., F.R.C.S.I.—Master of the Coombe Lying-in Hospital, *vice* G. H. Kidd, M.D., F.R.C.S.I.

MIVART, F. ST. GEORGE, M.R.C.S.—Surgeon to the Western General Dispensary, *vice* G. S. Hames, F.R.C.S., resigned.

PRYCE, T. DAVIES, M.R.C.S., L.S.A.—Junior Surgeon to the Nottingham Dispensary.

RICHARDS, THOMAS, M.B.—Extra Acting-Physician to the Children's Hospital, Birmingham.

ROBSON, A. W. M., F.R.C.S.—Consulting Surgeon to the Batley and District Cottage Hospital.

SCOTT, J. H., M.B.—Assistant-Surgeon to the Dublin Throat and Ear Hospital.

SILK, JOHN FREDERICK WILLIAM, M.B.—Sambrooke Medical Registrar at King's College Hospital.

VINRACE, E. D., M.R.C.S.—Resident Medical Officer to the Throat Hospital, Golden-square, W.

WILSON, J. GRANT, M.R.C.S., L.S.A.—Senior Resident Surgeon to the Nottingham Dispensary.

## DEATHS.

ASHBURNER, HENRY JOHN, M.R.C.S., at Horsham, on December 11, aged 53.

ASHTON, THOMAS, M.D., at Norwood, Altrincham, Cheshire, on December 15, aged 83.

BUCHAN, CHARLES FORBES, M.A., M.B., at Camberwell, on December 10.

PRETTY, GEORGE WILLSON, M.R.C.S., etc., at Fressingfield, Suffolk, on December 16, aged 65.

## VACANCIES.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), with furnished rooms, fire, light, and attendance. Candidates must be registered and possess both a medical and a surgical qualification. Applications, with original testimonials and certificate of registration, to be forwarded to the Secretary, on or before January 15.

CHORLTON-UPON-MEDLOCK DISPENSARY.—House-Surgeon. Salary £120 per annum, with apartments, etc. Applications to be sent to the Hon. Secretary at the institution.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Assistant Dental Surgeon. (For particulars see Advertisement.)



**METROPOLITAN ASYLUMS BOARD: DARENTH IMBECILE SCHOOLS, NEAR DARTFORD, KENT.**—Assistant Medical Officer. (*For particulars see Advertisement.*)

**YORK DISPENSARY.**—Resident Medical Officer. Salary £130 per annum, with furnished apartments, coals, and gas. Candidates must be duly qualified and unmarried. Applications and testimonials to be sent to S. W. North, Esq., 84, Micklegate, York, on or before December 23.

### UNION AND PAROCHIAL MEDICAL SERVICE.

\*. \* The area of each district is stated in acres. The population is computed according to the census of 1881.

#### RESIGNATIONS.

**East Ward Union.**—The offices of Medical Officer for the Kirkby Stephen District and the Workhouse are vacant by the death of Mr. Thomas Sayer: area 19,163; population 2493; salary £20 per annum; salary for Workhouse £30 per annum.

**Sunderland Union.**—Dr. A. B. Low, Medical Officer for the Workhouse, has resigned: salary £275 per annum, proposed.

#### APPOINTMENTS.

**Horne Union.**—William H. Anderson, M.B., C.M., to the Bessingfield District.

**St. Saviour's Union.**—John F. Williams, M.R.C.S. Eng., L.S.A., as Assistant Medical Officer and Dispenser at the Infirmary.

**THE CHOLERA AT MECCA.**—Mecca is at length reported to be free from cholera, and the sanitary condition of the caravans returning from that place is now excellent.

**SHOP ASSISTANTS.**—A Bill, which is virtually an extension of the Factory and Workshops Act, 1878, has been framed under the auspices of the Shop-Hours League, with the view of obtaining reasonable hours for shop assistants of both sexes. It is expected that it will be introduced into Parliament next session, and it is to be hoped that time will be found to pass a measure affecting the health of such a large class of the population.

**THE LATE SIR WYVILLE THOMSON.**—On Saturday last a bust of the late Professor of Natural History was presented to the University of Edinburgh on behalf of the subscribers by Mr. Murray, of the *Challenger* Expedition, who, in making the presentation, said that it had been a project of Sir Wyville Thomson's to establish large marine laboratories on the Firth of Forth. The bust is by Mr. John Hutchison, of Edinburgh, and is said to be a good likeness.

**THE HOMES OF THE POOR IN VIENNA.**—The question of the housing of the poor has been raised in the Austrian Parliament by a motion to exempt from the heavy house-tax lodgings of which the rent is under £14, and to give State facilities to societies formed for the erection of healthy artisans' dwellings. Vienna, like all large towns, has slums and rookeries, in some cases worse than any in London, but improvement seems impossible owing to the enormous house-tax, which is over 35 per cent. on the rent.

**PROSECUTION UNDER THE APOTHECARIES ACT.**—Mr. J. M. Rhodes, of Yeadon, Leeds, who appears in the "Medical Directory" as a Licentiate of the Apothecaries' Society, has been sued by that Society for £20 penalties for practising as an apothecary without being duly qualified. The defendant had been fined a similar amount early in the year for the same offence, and though it was stated that he had since then always had a properly qualified practitioner in charge of his practice, the judge considered the case proved, and gave a verdict for the full penalty.

**CLASSIFICATION OF DISEASES.**—In a recently published report, Surgeon-General Wales, Chief of the United States Naval Bureau of Medicine and Surgery, recommends that the medical departments of the great naval powers be invited to a conference with a view to the adoption of a uniform nomenclature, classification, and tabulation of diseases, as well as of a system of interchange of periodical reports of the movement of disease, from which international reports of sanitary conditions all over the world may be published at intervals.

**BEQUESTS TO HOSPITALS.**—The late Mr. Samuel Lancaster, of Walthamstow, has bequeathed £500 to each of the following charities:—The Seamen's Hospital, Wainstead; the City of London Hospital for Diseases of the Chest, Victoria-park; the Royal Hospital for Consumption, Ventnor; the Royal Hospital for Incurables, Putney; the Royal Hospital for Diseases of the Chest, City-road; the Earlwood Idiot Asylum; the London Hospital; the Throat Hospital, Golden-square; the Truss Society, Finsbury; and the General Throat Society, Gray's-inn.

**HEALTH LECTURES.**—On the 12th inst., Dr. Andrew Wilson delivered, at Burntisland, the last of a series of eight popular lectures on "Physiology in its Relation to Health," which he has been giving in connexion with the Combe Trust. A prize competition will be held on the subject of the lectures, and the local medical men, Drs. Spence and Orr, have consented to act as adjudicators.

**GRESHAM LECTURES.**—The lectures founded by Sir Thomas Gresham will be read to the public on the following days, at 6 o'clock p.m., in the theatre of Gresham College, Basinghall-street, in the following order:—Divinity (Dean Burgon), January 8, 9, 10, and 11; Rhetoric (Mr. Nixon), January 15, 16, 17, and 18; Geometry (Dean Cowie), January 22, 23, 24, and 25; Law (Dr. Abdy), January 29, 30, and 31, and February 1; Astronomy (Rev. E. Ledger), February 5, 6, 7, and 8; Physic (Dr. Symes Thompson), February 12, 13, 14, and 15; and Music (Dr. Henry Wylde), February 19, 20, 21, and 22.

**THE LATE SURGEON-GENERAL JOHNSTONE.**—Surgeon-General T. B. Johnstone, M.D., who recently died at Ealing in the sixty-sixth year of his age, graduated at Edinburgh in 1842, and shortly after proceeded to India as an Assistant-Surgeon upon the Bombay establishment. He served with the 2nd Bengal Regiment with the troops under Sir Charles Napier, G.C.B., in the campaign against the mountain tribes in Kutch in 1844-45, and also with the Camel corps in Scinde. On returning to India after his furlough, Dr. Johnstone held various civil appointments, including that of Secretary to the Inspector-General, in which office he remained until he became a Deputy Surgeon-General, when, upon his retirement from the service in 1877, he obtained the rank of Surgeon-General.

**THE CONVALESCENCE OF SCURVY.**—Dr. Richberg calls attention to the necessity of absolute and resolute maintenance of the horizontal posture until recovery is pretty well advanced. Patients who seemed to be in the best of spirits, and in a fair way of recovery, have died instantly on making a sudden exertion. The transfer from a vessel to a hospital in the harbour, the endeavour to leave the room, or the effort to sit up in bed, have all been attended with the direst results. The fatal termination in these cases is undoubtedly due to syncope, occasioned either by the diminished power of the heart (reduced as this organ sometimes is to one-third of its usual size), or, as suggested by Aitken, to embolism from an altered state of the fibrin.—*Phil. Med. Reporter*, November 24.

### NOTES, QUERIES, AND REPLIES.

*He that questioneth much shall learn much.*—Bacon.

#### THE ROGERS TESTIMONIAL.

The following is the eighth list of subscriptions:—Dr. Farquharson, M.P., Aboyne, £1 1s.; Well-Wisher, Camberwell, £1 1s.; James Somers, Esq., Broadclyst, Devon, £1 1s.; C. D. Waite, Esq., M.B., Old Burlington-street, £1 1s.; John Storr, Esq., King-street, Covent-garden, £1 1s.; H. Taylor, Esq., F.R.C.S., Guildford, £1 1s.; Messrs. Haynes, Evesham, £1 1s.; H. G. Sadler, Esq., Canterbury, £1 1s.; Dr. Bain, Blackwall, 10s. 6d.; J. W. Hayward, Esq., Whitstable, 10s. 6d.; R. Jeffreys, Esq., Chesterfield, 10s. 6d.; W. D. James, Esq., Sheffield, 10s. 6d.; John Wood, Esq., Tarrington, 10s.; S. J. Erwin, Esq., Openshaw, 5s.; H. A. Lawton, Esq., Poole, 5s.; R. Hickman, Esq., Newbury, 5s.

#### THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—W. Cadge, Esq., £1 1s.; L. Cattermole, Esq., £1 1s.; E. W. Coleman, Esq., £1; Dr. E. O. Hopwood, £1 1s.; W. J. King, Esq., £1 1s.; G. E. Mineard, Esq., £1 1s.; T. D'O. Partridge, Esq., £1 1s.; W. E. Soffe, Esq., £1 1s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street, or T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

*Dr. Henry Sorley, Wanganui, New Zealand.*—Letter and enclosure received with thanks.

*Dr. Exchaquet, Rex, Suisse.*—We have already noticed the pamphlet, and cited the cases you mention. See issue of November 3, page 528.

*Dr. Harris.*—There is a vacancy in the Council of the College of Surgeons, caused by the resignation of Mr. John Gay, who was re-elected a member of the Council in 1878, with Mr. Edward Lund, of Manchester. The vacant chair cannot be filled up until the annual meeting of Fellows, the first Thursday in July next.



*A Competitor.*—Essays for the Jacksonian Prize of the Royal College of Surgeons must be sent to the Secretary of that institution on or before Monday, the 31st inst., and before four o'clock.

## COMMUNICATIONS have been received from—

Dr. S. WILKS, F.R.S., London; THE SECRETARY OF THE CHELSEA HOSPITAL FOR WOMEN, London; L'ÉDITEUR DE LA "REVUE SANITAIRE," Bordeaux; Mr. E. OWEN, London; Dr. G. E. HERMAN, London; Mr. A. KNIGHT, London; Mr. GEORGE DONILEVSKI, St. Petersburg; Mr. S. HALL, Carlisle; Dr. J. MORTIMER GRANVILLE, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Dr. NORMAN CHEVERS, London; THE REGISTRAR OF THE UNIVERSITY OF LONDON; Mr. T. M. STONE, Wimbledon; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE NATIVE GUANO COMPANY (Limited), London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Mr. BECHER, London; Mr. M. SMALE, London; Dr. W. H. CORFIELD, London; Mr. J. CHATTO, London; Mr. E. ATKINSON, Leeds.

## BOOKS, ETC., RECEIVED—

The Effects of Unhealthy Occupations, etc., by Andrew Smart, M.D., F.R.C.P.—Some Debatable Questions and how to Solve them, by Sampson Gamgee, F.R.S.E.—China Imperial Maritime Customs Medical Reports for the Half-Year ended March 31, 1883—Transactions of the Pathological Society of London, vol. xxxiv.—Transactions of the Clinical Society, vol. xvi.—How to Arrest Infectious Diseases, by E. G. Barnes, M.D.—Annals of Cholera, by John Macpherson, M.D.—Religio Medici, by Sir Thomas Browne—Evolution of Morbid Germs, by K. W. Millican, B.A., M.R.C.S.—Relation of Eye and Spinal Diseases, by A. Friedenwald, M.D.—On Baldness and Greyness, by T. Robinson, M.D.—Transactions of the American Gynecological Society for 1882—The Pathology and Treatment of Venereal Diseases, by F. J. Bumstead, M.D., and Robert W. Taylor, A.M., M.D.—On Wasting Diseases of Infants and Children, by Eustace Smith, M.D. Lond.—A Compendium of Modern Pharmacy and Druggists' Formulary, by W. B. Kilner—The Electro-Osteotome, by Dr. Milton Josiah Roberts—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for 1883—Illustrated Catalogue of the Publications issued by Cassell and Co. (Limited)—Malignant Disease of the Larynx, by H. T. Butlin, F.R.C.S.—Sterility in Woman, by J. Matthews Duncan, M.D., LL.D., etc.—Mental Diseases, by T. S. Clouston, M.D., F.R.C.P.—Influence of the Mind upon the Body, vols. i. and ii., by D. H. Tuke, M.D., F.R.C.P.—Rupture of the Urinary Bladder, by Walter Rivington, F.R.C.S.—Report of the London Water-Supply.

## PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Philadelphia Medical Times—Maryland Medical Journal—Ärztlichen Polytechnik—Revue des Sciences Médicales—Journal of the Vigilance Association—An Ephemeris of Materia Medica, etc.—Canada Lancet—Australasian Medical Gazette—Wharfedale and Airedale Observer, December 14—Toronto Sanitary Journal—Therapeutic Gazette—Canadian Practitioner.

## APPOINTMENTS FOR THE WEEK.

## December 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

## 24. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

## 25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

## 26. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopaedic, Great Portland-street, 10 a.m.

## 27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopaedic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

## 28. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

## VITAL STATISTICS OF LONDON.

Week ending Saturday, December 15, 1883.

## BIRTHS.

Births of Boys, 1257; Girls, 1283; Total, 2540.

Corrected weekly average in the 10 years 1873-82, 2673.0.

## DEATHS.

	Males.	Females.	Total.
Deaths during the week ...	833	889	1722
Weekly average of the ten years 1873-82, ...	965.7	935.5	1901.2
Deaths of people aged 80 and upwards ...	...	...	76

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhoea.
West ...	669333	11	...	3	9	...	3	...	5	...
North ...	905947	6	9	8	10	4	...	5	2	4
Central ...	282238	1	2	...	3	...	3	...	...	...
East ...	692738	8	16	1	12	2	1	...	...	...
South ...	1265927	1	24	14	10	14	...	13	...	3
Total ...	3816483	7	53	40	24	42	2	25	2	12

## METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	...	...	...	...	...	29.691 in.
Mean temperature ...	...	...	...	...	...	44.0°
Highest point of thermometer ...	...	...	...	...	...	54.2°
Lowest point of thermometer ...	...	...	...	...	...	32.9°
Mean dew-point temperature ...	...	...	...	...	...	38.0°
General direction of wind ...	...	...	...	...	...	S.W.
Whole amount of rain in the week ...	...	...	...	...	...	0.63 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 15, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1883.	Births Registered during the week ending Dec. 15.	Deaths Registered during the week ending Dec. 15.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.)			Temp. of Air (Cent.)	Rain Fall.	
					Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.		In Inches.	In Centimetres.
London ...	3955814	2540	1722	22.7	54.2	32.9	44.0	6.67	0.53	1.35
Brighton ...	111262	66	48	22.5	51.2	31.3	42.1	5.62	0.74	1.88
Portsmouth ...	131478	96	35	13.9	...	...	...	...	...	...
Norwich ...	89612	53	35	20.4	...	...	...	...	...	...
Plymouth ...	74977	32	29	20.2	54.0	31.2	45.5	7.50	0.46	1.17
Bristol ...	212779	119	63	15.4	53.0	33.5	45.0	7.22	0.52	1.32
Wolverhampton ...	77557	42	24	16.2	54.0	28.8	41.4	5.22	0.64	1.63
Birmingham ...	414846	278	193	24.3	...	...	...	...	...	...
Leicester ...	129483	88	51	20.5	...	...	...	...	...	...
Nottingham ...	199349	159	90	23.6	53.9	33.0	42.4	5.78	0.50	1.27
Derby ...	85574	52	40	24.4	...	...	...	...	...	...
Birkenhead ...	88700	63	38	22.4	...	...	...	...	...	...
Liverpool ...	566753	368	275	25.3	55.0	37.5	45.1	7.28	1.04	2.64
Bolton ...	107862	65	46	22.3	51.1	30.6	41.0	5.00	3.30	8.38
Manchester ...	339252	211	190	29.2	...	...	...	...	...	...
Salford ...	190465	130	98	26.8	...	...	...	...	...	...
Oldham ...	119071	76	46	20.2	...	...	...	...	...	...
Blackburn ...	108460	68	50	24.1	...	...	...	...	...	...
Preston ...	98564	71	52	27.5	...	...	...	...	...	...
Huddersfield ...	84701	44	39	24.0	...	...	...	...	...	...
Halifax ...	75591	42	26	17.9	...	...	...	...	...	...
Bradford ...	204807	116	63	16.1	54.0	32.0	42.6	5.90	1.12	2.84
Leeds ...	321611	205	155	25.1	...	...	...	...	...	...
Sheffield ...	295497	224	119	21.0	55.0	33.0	42.3	5.73	1.51	3.84
Hull ...	176296	99	59	17.5	53.0	32.0	40.9	4.94	0.60	1.52
Sunderland ...	121117	99	48	20.7	...	...	...	...	...	...
Newcastle ...	149464	96	65	22.7	...	...	...	...	...	...
Cardiff ...	90033	60	36	20.9	...	...	...	...	...	...
For 28 towns ...	5620975	5562	3735	22.6	55.0	28.8	42.9	6.06	1.00	2.54
Edinburgh ...	235946	133	94	20.8	52.3	33.8	42.0	5.56	0.53	1.35
Glasgow ...	515589	357	260	26.3	...	...	...	...	...	...
Dublin ...	349385	152	215	32.1	53.7	30.7	43.3	6.28	1.15	2.92

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29.69 in.; the highest reading was 30.23 in. at the beginning of the week, and the lowest 29.25 in. on Tuesday morning.



## CLINICAL LECTURES.

By J. MATTHEWS DUNCAN, M.D., F.R.S.,

[Physician-Accoucheur and Lecturer on Midwifery  
at St. Bartholomew's Hospital.]

## LECTURE II.—RETENTION OF MENSES.

THIS morbid condition has been classed under amenorrhœa, and this will give you some idea how superficial and erroneous prevalent views may be. Menstruation was looked upon as mainly a bloody discharge from the vagina, and in this disease there was none; hence it was an amenorrhœa. But you know that the blood is discharged, though not from the vagina, not on the clothes of the woman or the diaper she wears, but into the genital passages. There it is retained, the natural exit for it being closed; there it accumulates; and so the disease is constituted. There is not amenorrhœa, but menorrhœa into the passages, not farther.

It is a rare condition. Lately we have had three characteristic cases in "Martha," and, using only these and others that I have seen, I will describe it to you. I have not met with a case where menses were retained by closure of the internal or external os uteri. I have seen closure of the internal os uteri and consequent pyometra in an old woman; closure of the external os uteri in a pregnant syphilitic woman I have seen; but these are not cases of retained menses. Sometimes the vagina becomes closed by the healing of sores, the result of sloughing from pressure during parturition, or the result of syphilitic infection. But though cases of stricture more or less tight, and having a small lumen, from these causes are not uncommon, I have not seen one of complete closure (atresia) with retention and accumulation.

When a passage has no perforation or hole, or is really not a passage, it is said to be in a state of atresia. It is atresia of the vagina (not of the hymen) that generally causes retention of menses. The atresia is generally at the external orifice of the vagina or very near it, and it is congenital. Cases occur where the atresia is produced by absence of more or less of the lower parts of the vagina, not by mere closure inferiorly, that passage being then only a limited cavity, potential or distended, at first high in the pelvis, into which the canal of the cervix uteri opens. Lately I saw a case wherein the atresia affected only the middle of the vagina, about an inch and a half of passage existing below, and a largely dilated upper portion above, the atresia. In this case it was not such a closure by a diaphragm or hymen-like membranous dissepiment as has been described, but a closure by apparent absence of part of the vagina, its place being taken by a cord-like mass of dense tissue.

The amount of lower vagina absent is a very important point in regulating practice, as you will soon understand. Generally there appears to be no absence of any part of the vagina, no atresia of it, but only of the hymen; and consequently, cases of retention of menses are ordinarily described, or spoken of, as cases of imperforate hymen. When a considerable part of the lower vagina is absent, then, on examination, with a finger in the rectum and a bougie in the urethra, you find no intervening tissues, nothing to represent the vagina there; but higher up it is felt as a distended sac. [Though the lower part of the vagina is absent, you may find a distinct hymen.]

I have said there appears to be no absence of any part of the vagina, only an imperforate hymen—appears to be—but it is, at least often, a delusive appearance, the vagina being really closed inferiorly; and the hymen, not imperforate, being found in its usual situation: the so-called and apparently closed hymen being the distended and expanded fossa navicularis, or mucous membrane between the posterior margin of the hymen and the fourchette.

Into this atresic vagina the menstrual fluid, chiefly blood, is poured, in successive monthly flows. It is retained and accumulates. The mucus of the passages poured into the same cavity for years previously is retained but does not accumulate—an important and curious fact. It is retained and is somehow or other disposed of, probably is in some sense decomposed and absorbed. The retained menstrual

fluid becomes denser, the liquor being mostly absorbed; and at last it is a viscid, treacly, or tar-like mass, lighter or darker brown in colour, having a faint faded smell or none at all. As a result of decomposition its elements are altered chemically and microscopically, but it is not putrid. If air is admitted into the vagina, putrid decomposition rapidly ensues. The quantity of accumulated fluid varies greatly, forty or even fifty ounces being reached. In my own practice I remember no case where I measured and found more than about fifty ounces, but I have heard, and recently, of larger quantities, even 105 ounces in a well-authenticated case.

This fluid is gradually accumulated and retained long, it may be for years; and on these accounts it is not the same as that found in hæmatoceles. No doubt the blood of an old hæmatocele becomes treacly or tarry in appearance and consistence, and that uniformly; but this is rarely seen because it is generally absorbed and disappears, not decaying or getting old. The blood of a hæmatocele is sometimes putrid, germs having somehow reached it. The blood of a recent hæmatocele is clotted, its liquor is absorbed; the clots become partially decolourised, brick-coloured, if they remain long enough and yet have not had time to dissolve into the treacly fluid of an old hæmatocele. The fluid of a hæmatocele varies greatly in amount. I have recorded a case where 115 ounces were discharged from one.

The accumulating fluid opens up and fills the vagina, or what of that passage may be left. The replete vagina distends and fills the pelvis. It is felt to, as it were, flatten the rectum against the sacrum, but I have never seen anything like complete obstruction of fæces. At last, in cases of so-called imperforate hymen, it causes bulging, like a large abscess, between the labia majora; and if here the distended membrane of the fossa navicularis is thin, the bulging part is livid or bluish. As in retro-uterine hæmatoceles, the degree of descent into the pelvic excavation varies, and in one of our cases in "Martha" this was exemplified. The bag was enormous, containing forty ounces; it was easily felt per rectum, but was far from pressing strongly on the perineum or against the pelvic floor, and it was far from tight or highly distended; it was also easily felt between the labia, but it did not protrude between them or bulge them like an abscess ready to burst. As felt per hypogastrium it was prominent, hard, and rounded, like other masses of the same kind in other cases. The fluid seemed to be drawn up rather than pushed down. When the blood is accumulated in the vagina, the commonest case, it is called hæmatokolpos.

After more or less completely distending the vagina, which, in cases of long standing, becomes thickened or hypertrophied around its contents, the increasing fluid distends the cervix uteri, which is also hypertrophied; and here, I believe, in most cases, distension ends. We have no term for this—hæmatauchen, or some such,—and we ought to have; for the cervix uteri gets widely opened up and helps largely to form the containing cavity.

After the neck of the womb the body sometimes gets filled—hæmotometra,—but this is, I believe, rare. It is difficult to get this point settled; for, during life, examination does not give results to be fully confided in, and post-mortem examinations are rare. The cervix is a different organ from the body of the womb, and is easily dilated. The body generally resists the dilating forces; and, as in two of our recent cases, it is felt, per hypogastrium, of nearly natural size and projecting from the smooth globe of the general mass.

Then, in some cases, a tube or both tubes become replete—hæmatosalpinx,—and this is held to be the case when the tumour felt per hypogastrium is irregular in shape, more or less in correspondence with what one would expect if the tubes were filled and lying at the sides of the great and nearly central mass. Of course it is possible the tubes may be dilated without the uterine body being so, for they sometimes excrete menstrual fluid; but it is naturally held, in default of post-mortem investigations to settle the point, that if the uterine body is not expanded the tubes also will not be dilated.

Not unnaturally you might expect that this retention, accumulation, distension, would soon cause symptoms locally and general constitutional disturbance. Now, that is generally not the case. I heard the other day of a case where the first and only symptom was retention of urine. We have a remarkable case of the same kind now in "Martha,"



where the first and only symptom was retention of urine. If retention of urine does not occur, you will probably not have symptoms till you have tension caused by accumulation. Our case of L. P., at present in "Martha," is remarkable on account of the youth of the girl (thirteen), but it is plain that she is developed in a womanly way beyond her years. In this case the retention of urine occurred very early, the bladder being seven inches long; and its loss of power could scarcely be ascribed to pressure, for the vagina was not tense, the bulging between the labia slight, and only seventeen ounces accumulated.

In two recent cases of great accumulation we may well say there were no symptoms and no constitutional disturbance. Certainly, even at last, there was no constitutional disturbance in either of them. In one, S. P., aged twenty-one, a florid girl, beaming health and vigour, it was only eight months before coming into hospital that she knew she had a lump in the lower belly; it was discovered accidentally by her doctor, who happened to examine her in bed for a passing illness; and she had no symptoms till the doctor told her she had this lump. Then she began to find out that she had irregular aches for about the half of each month, probably suggested, or what are called imaginary symptoms.

Here I would make a digression to call your attention to two points exemplified in the case of S. P. There were no symptoms during the development of this great tumour or bag; therefore this disease has no essential symptoms. Pain is an essential symptom or part of many diseases. Here is a growing disease without any pain or any other symptom, as distinguished from sign. In the case of all diseases, you should consider what symptoms are essential and what signs are essential or invariable, what symptoms and signs are very frequent or frequent, and so on. The second point to which I would call your attention is equally important: it is the suggestion of symptoms. A woman has a disease, or fancies she has one; she soon imagines or finds a suitable symptom, or constructs a group of symptoms, which are in a sense not real but imaginary, and it is often impossible to distinguish these imaginary from real symptoms. When we call these symptoms imaginary, you must not suppose they are false or humbug—far from it; such pains are as grievous and real as any other. The pain of an imagined cancer may be as severe as, or severer than, that of a real one. In our case of S. P. there were no aches or symptoms of any kind till she was told she had this lump; and the pains or aches when they did come were not accompanied by any failure of health, loss of good looks, want of appetite, or inability to do with alacrity all her hard work. For these two reasons I believe they were imaginary in her case. I have said that you may not be able to distinguish real from imaginary pain, but often you can do so. A case will show this and illustrate it—a case often alluded to in my lectures. A lady of high character and well-regulated mind was long under uterine treatment, and believed she had cancer. She did not dare to ask whether she had cancer or not, desiring to avoid receiving the expected painful assurance from her physician. She had intense nocturnal uterine pain, so severe as to cause much family distress and disturbance. This went on for two years, and then her physician died. She consulted me in the greatest anxiety; and, fortunately, giving her my opinion, I added that she had no trace or indication of cancer. Immediately she was cured; and no doubt, as she herself asserted, it was this assurance as to "no cancer" that alone blew away all her dark cloud of symptoms and bad health.

In cases of this kind, however, symptoms are at least frequently present. Most of them may be, in a word, described as the symptoms often, not always, observed in early pregnancy. Peculiar uneasy feelings in the pelvis, disturbance of urination and defæcation, sickness or other derangement of stomach, pains in the mammæ, some development of the areolæ. When you consider that these symptoms accompany a rounded tumour in the lower belly, you will not be astonished that such a case is often mistaken for pregnancy.

The great symptom is pain or pains, present only occasionally, and sometimes recurring with such four-week periodicity as to suggest that they come on at the monthly times. To the best of my judgment, these pains are like to, if not identical with, the pains of dysmenorrhœa or of after-pains—pains of recurring uterine spasms. They are occasionally very severe, and accompanied with some uterine

tenderness. Like other pains, when very severe, they bring on sickness, vomiting, and general prostration. I have no sure ground for my impression that these pains are present chiefly, if not exclusively, when the body of the womb is dilated and when the tubes are so. Certainly this was my judgment in the severest case of recurring spasmodic pains that I have observed.

Tension accounts for the appearance and continuance of pain which may be very severe, and the delay of symptoms probably arises from delay of tension. Numerous cases lead me to believe that, as a rule, your advice is not asked till tension comes, and that tension does not begin to urge till two pints or more are accumulated, in a woman with so-called imperforate hymen and otherwise well-made.

I have little to say of the tumour. It and the malformation are the two great signs of the disease, and generally these two suffice for diagnosis. The tumour is rounded, dull on percussion, dumb, slightly displaceable, somewhat sensitive; rising, when at its largest, as high as half-way from the symphysis to the navel, or somewhat higher. Generally it has a regular rounded form, and often upon it can be felt a little lump of the size and shape of the body of the uterus. Other irregularities in shape are attributed to dilatation of the body of the uterus and of one or of both tubes.

All I have hitherto told you of this morbid condition takes for granted that the malformation consists only in atresia of a passage otherwise naturally developed; but other malformations occur with atresia and retention. I cannot describe them in a clinical lecture, for I have seen only one case, and regarding it have not sufficient assurance as to its real nature. I simply state that a woman may have one tube closed internally and distended, or a tube and half of a double uterus may be distended: these are possible occurrences. There may be distension of an undeveloped uterine horn. But there have now been put on record several cases of double uterus and vagina, with atresia on one side, and consequent retention and accumulation; and generally there has been absence of the lower half of the closed or atresic vagina, just as is often seen in ordinary or simple retention. These remarkable cases with duplicity of organs constitute unilateral retention. You may have, then, unilateral hæmatokolpos, hæmatauchen, hæmatometra, hæmato-salpinx; and in a puzzling case it is necessary to keep this in mind, with a view to diagnosis. I do not remember any case where the disease was double or bilateral; yet this is possible.

The natural termination of a case of this kind I have not observed. The retained fluid may find vent through a tube into the peritoneal cavity, and there it may accumulate, or, what is more probable, excite dangerous diffuse peritonitis; or it may find vent through the bladder or rectum. In cases of imperforate hymen, real or so-called, the fluid will probably make its way through the distended pouch projecting between the labia majora.

Treatment consists in making artificially an opening in the retaining cyst large enough to give free exit to the pent-up fluid, and in maintaining this opening so that in future the menses may flow unobstructedly through it.

When the rectum and urethra adjoin one another, the opening should be made through the former, and it may be done by a guarded knife or by a Pouteau's trocar. When the tarry fluid ceases to flow, the opening should be maintained till the wound is healed; and this is done by daily, or every two or three days, pushing the finger or a bougie through the artificial aperture.

In such cases adventurous surgeons often try to make, or succeed in making, a new vagina, or rather a new piece of vagina, to form a passage from the vulva to the upper part of the vagina, or real vagina, the vaginal sac into which the cervix uteri opens. This is effected by cutting or otherwise tunnelling in the scanty tissues between the urethra and rectum; and this part of the operation is quite feasible, and suffices for the exit of the retained fluid. But the whole proceeding is most unsatisfactory, for the wound persists in closing or so contracting as to be a most disappointing kind of passage—ever requiring dilatation, and at its best forming a hard, inconvenient meatus; never a real mucous channel, but a cicatricial indurated passage. These operations should, indeed, be discommended, as, at best, only vanity and vexation of spirit. They are done with the view of restoring to the female full sexual womanhood; and this would be, of



course, a great gain to the woman, naturally much desired and highly appreciated. But it is not to be doubted that it is inexpedient that a gravely malformed woman should continue the species, and it is imprudent to aid and abet this course. Besides, as already hinted, the attempts to make a new vagina result in a troublesome and most imperfect imitation of nature—as bad, indeed, as the new noses that surgeons amuse themselves by making.

Fortunately, the commonest cases are those where the vagina comes down to the vulva, and, indeed, when replete, protrudes between the labia. Then, the rectum and urethra do not mutually adjoin, and operation is simple and efficient. The malformation is comparatively slight, and the surgical procedure necessary for its relief does at the same time restore to the woman full sexual capability. In the case of I. P., the young girl of thirteen now in “Martha,” the rectum and urethra were not adjacent, but we had to cut through half an inch of wall to reach the treacly fluid. Probably, had the accumulation increased this would have lost thickness.

The patient is placed in the lithotomy position, and an incision an inch long is made in the region of the hymen in a sagittal direction; and it is not necessary to make it crucial. The incision was made, and I think advantageously, with a view to avoiding septicæmia, in our last three cases, by Paquelin’s knife-cautery. By this you cut through layer after layer, and make a large opening. The viscid contents now flow, accelerated by each inspiration, and gushing if an attempt at vomiting occurs. When it has ceased to flow copiously, lint soaked in carbolic oil is placed over the pudendum; arrangements are then made to receive further discharge, and the woman is put to rest.

Chocolate-coloured discharge comes for a few days; and the next coloured discharge is brighter, and probably the duly recurring monthly flow. The finger occasionally examining keeps the wound in the vestibule widely open until it heals, in a week or ten days. The woman should all this time, and, indeed, for three or four weeks, remain in bed, that the restoration of the vagina and uterus to a natural state may meet with no interruption. At first the vaginal cavity is felt to be large, and its walls thick and hard; the cervix uteri, difficult to reach, is in a like state; and these parts very slowly resume a natural state, after a long process of involution and retraction. In the case of the young girl with only seventeen ounces retained, there was no thickening and hypertrophy of the vagina.

You will observe that I have not directed you to squeeze out by hypogastric pressure nor to wash out by syringe and water; and I do this deliberately. These processes, when resorted to, cause irritation, and lead to putrefaction of the contents if any is allowed to remain. Nothing could have done better than our last three cases treated by Paquelin’s cautery incision, and otherwise let alone; we had no putridity of discharge, no rise of temperature, or other sign of irritation or inflammation.

I have not spoken of any dangers attending this disease or the operation for its relief; and I know by experience only of dangers attending the operation. In all my earlier cases I have had, only occasionally, trouble from sapræmia caused by putrid discharge, and in one case a sharp attack of peritonitis. But it is well known that this operation, even in simple cases of so-called imperforate hymen, is not rarely fatal, and the ordinary cause of death is septicæmia, generally with peritonitis. Another cause of death is reflux of fluid into the peritoneal cavity, inducing pernicious peritonitis. This is a curious occurrence if you regard its cause, and I conclude this lecture with a few words on it. It is certainly not to be accounted for in all cases by injudicious hypogastric squeezing; and, if this is not the cause, what is it? You make a free opening for the tightly pent-up fluid; it flows copiously; and now, when it is not under tension, flow per vaginam being unobstructed, it cruelly passes into the peritoneal cavity through a tube. I cannot account for this satisfactorily; and the only hypothesis I can frame, in explanation, is that, while the abdominal contents are being rapidly considerably reduced in bulk by the flow of retained fluid, some movement by the woman produces negative abdominal pressure, and hence the retroflux through a tube. This retroflux sometimes occurs before the operation; and that is quite another matter, easily explained by the increased tension of increased accumulation, and by its gradually produced results.

## PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

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(Continued from page 683.)

### MALARIAL CACHEXIA—Continued.

AMONG the diseased conditions consequent upon Malarial Cachexia are Œdema, Ascites, and Hydrocele. Each of these demands separate notice.

**Œdema.**—More or less puffiness of the face, ankles, and sometimes of the hands, is characteristic of severe Indian malarial anæmia. Some œdema of the ankles is very frequently seen among old Indians. I (in common, I believe with many other medical men) long regarded this condition of the ankles as being, in all cases, a very grave evidence of a broken constitution. Dr. John Radcliffe’s brutal remark to William the Third—“I would not take your Majesty’s two legs for your three kingdoms!” has, doubtless, ever since, rankled in many minds. I, for one, did not give sufficient weight to the common facts that unseasoned female nurses and shopwomen, and sailors who have become a little scorbutic on long voyages; get œdema of the lower extremities; and that there is always more or less swelling of the feet, suggesting slippers, after a long walk. We all know what is the true significance of this symptom in fixed organic disease, cardiac, pulmonary, renal, etc.; and, in hospital practice, the student, observing the almost constant attendance of this symptom upon deadly chronic maladies, naturally imagines that it is always a harbinger of death. A sensible writer has said that a large proportion of our worst hospital cases only seek admission when œdema has become so great as to prevent them from wearing their boots, otherwise they would go about their business until they sank from debility. Men in private practice in England and in India see a great deal of œdema of the ankles, unattended with serious organic disease. Many ruddy and active old Indians are subject to this condition. Some time ago, I was making a few calls among my Indian friends, and saw a brother officer, in whom œdema of the lower limbs was really a symptom of advanced organic disease. In thinking over his case, I recollected that I had chanced to see, on that day, six other fairly healthy people from India, whom I knew to be then, or to have been at some time or other, subject to this condition. Doubtless this œdema arises from a variety of causes in different subjects; and it is probably a graver symptom in some cases than in others. In all, anæmia appears to be present while the œdema lasts, and is evidently diminished when that symptom disappears. Considering that I know of persons now living, in by no means very weak health, who became subject to œdema of the lower limbs in India, twelve, fourteen, twenty years ago, it is evident that this condition is not always attended with great danger. Since the above was written, I have seen the report of the death of a senior brother officer, the statement of whose case I, as Secretary to the Medical Board, saw in 1857. He had undergone considerable hardship in the siege of Saugor, was probably rather scorbutic, and was described as being dropsical and œdematous. He subsequently resided at Cheltenham for a quarter of a century, dying in February last at the age of seventy-eight.

**Ascites**, quite independent of any discoverable disease of other organs, is very common among natives of India suffering from enlarged spleen and malarious cachexia. At first I tapped some of these poor creatures, (a) but I had very bad success in most of my cases of paracentesis, and latterly, for several years, found that, by treating the cachexia and

(a) In many cases they are not brought to us until the distension is so extreme that we are compelled to relieve the upward pressure of the diaphragm upon the lungs by drawing off fluid. I asked one poor woman, on admission, how long she had suffered from dropsy. She replied, “Two years.” She was so weak that, although the distension threatened suffocation, she was obliged to lie without a pillow, evidently that sufficient blood might reach the brain. I asked my colleague, Dr. Edward Goodeve, who was passing my ward, to look at her, saying that I hated tapping, and knew that if I tapped her she would certainly die, and that if I did not she must inevitably die. “Then,” said my friend, “give her the benefit of going out of the world *secundum artem*,” and he lent me a very delicate trocar, with which I let out only sufficient fluid to relieve the diaphragm. She sank in two days.



by carefully bandaging the abdomen, nearly all cases of merely anæmic ascites, not admitted moribund, did well, the fluid disappearing more or less readily without the use of diuretics, cathartics, or other evacuates.

Unquestionably, hepatic obstruction, temporary or permanent, generally has much to do with the causation of ascites in splenic cases. I have met with cases which afforded me assurance that, when the system is lowered by paludal cachexia, a state of liver disease which is temporarily obstructive to the circulation, but which has not reached the condition of permanent kirrrosis, may lead to abdominal dropsy, which may be relieved by change of climate, by steady counter-irritation over the hepatic region, and by a course of ipecacuanha in small doses, combined with all those means by which we treat malarious anæmia. It is needful to examine the state of the liver most carefully in all these cases.

Here it may be noticed that a deteriorated condition of the blood is more operative than mechanical obstruction is in the causation of dropsy in "obstructive" disease of the heart and liver; thus—

A. and B. suffer, at the same age, from the same degree of rheumatic stenosis of the aortic valves.

A. lives for many years, and dies, probably suddenly, without dropsy.

B. dies in a few years with chronic dropsy. Here many causes of death are at work, but the main causation is that—

A. lives in such a manner that his blood does not become deteriorated, breathes good air, avoids fatigue, has the best food, and only dies when aetiation of the aortic ostium, and consequent dilatation of the left ventricle, have proceeded to the utmost.

B. is obliged to work hard in a malarious place, has bad food, is ill-clad; he, being inadequately nourished, becomes in a degree scorbutic or anæmic; the life of his blood is deteriorated, the muscular power of the left ventricle rapidly fails, and dropsy occurs under a very moderate amount of cardiac obstruction. Consequently, one of the leading therapeutic indications in these cases is to keep the blood in good condition.

*Hydrocele* is a disease of very great prevalence among the natives of Bengal, chiefly the poor, but many of the rich suffering. Sir Joseph Fayrer has published (b) an important paper in which he holds that this "is one of the many forms in which the influence called 'Malaria' expresses itself." This is undoubtedly the case. As Secretary to the Medical Board I saw nearly all the officers who were sent down to Calcutta sick during the Great Mutiny of '57; many who had undergone great fatigue, exposure, and privation, especially during the siege of Lucknow, suffered from hydrocele, which I attributed, in part, to scorbutus.

In malarious blood-disease various *Embolie Conditions*, such as vessel-plugging, *Phlegmasia Dolens*, and *Gangrene* of the extremities, are very liable to occur. Both arterial and venous embolism are not infrequently observed as complications of paludal cachexia in temperate climates; these lesions are probably more frequent in India.

*Venous Plugging*.—Dr. J. Mouat, H.M. 13th Dragoons, published (c) the cases of two dragoons suffering respectively from malarious fever and from dysentery, who were both attacked, while under treatment in the notoriously unhealthy hospital at Bangalore, with extensive plugging of the veins of the lower limbs, as in *phlegmasia dolens*, and who appear to have died from pulmonary embolism.

Mr. Greig records (d) the case of a European who, having been bled for continued fever, died from phlebitis.

In his remarks (e) upon the case of a European soldier suffering from dysentery, who died of phlebitis consequent upon V.S., Dr. Macgregor says:—"During the latter part of July scarcely a man was bled without the risk of producing inflammation of the vein." He appears to attribute this to the impurity of the hospital air. (f)

At Chittagong a portion of one of my external thoracic veins became plugged, without pain or any sign of active inflammation. An old man, one of my table servants, came to me with a corded state of the saphena vein at the middle of the thigh. An abscess formed externally and was opened. There were no other bad symptoms.

*Phlegmasia Dolens* after delivery is a rather frequent occurrence in women who have suffered from Malarious Fever in Bengal.

*Arterial Plugging*.—When a student at Guy's, I had the case of an anæmiated lad, one of whose hands went quite spontaneously into a state of dry gangrene from arterial plugging. Dr. Carter narrates the case (g) of a Mussulman Beggar of Bombay, aged thirty-two, who was an opium-eater, and who had suffered from great exposure in stormy weather, who died from gangrene of the feet consequent upon plugging of the abdominal aorta. Sir Joseph Fayrer has given a very interesting set of cases of natives suffering from gangrene of the extremities caused by arterial plugging of distinctly malarious origin. In one year I saw more of these cases at the Calcutta Medical College Hospital than I did in all the rest of my Indian experience. There was evidently something peculiar in the endemic constitution of that year. At this time I saw, with my friend Dr. Robert Bird, of Howrah, a Jewish girl of seventeen, the child of rich parents, whom I had attended before for congenital heart-disease, dying from arterial gangrene of both lower limbs. Some years previously I was consulted in Calcutta in the case of a European uncovenanted judge, whose femoral became plugged high up, with the remarkable and most painful result of causing sloughing of the whole integument of the lower extremity, producing an enormous expanse of ulcer which refused to heal. Sir Joseph Fayrer notices that anthrax and boils and abscesses, so common in India, are attributed to capillary obstruction by pigment—the *débris* of broken-down blood corpuscles; he would rather attribute them and other consequences of obstruction to fibrinosis. During a long course of years, Sir J. Fayrer observed, in India, the occurrence of ante-mortem coagula in the right heart as a cause of death after surgical operations and accidental injuries, in cholera, and in various forms of malarious cachexia. The result is communicated at page 94 of his "Clinical and Pathological Observations." Hertz (h) describes Gangrene in Pernicious Fever, affecting the leg and the female genitals [was not this Malarious Phagedæna?]. A girl's hands, first one and then the other, became gangrenous after a few days of intermittent fever. (i)

*Sloughing of the Cornea and Spontaneous Gangrene of the Scrotum and Perineum* are, in some years, frequent sequelæ of Malarious Fever and Cholera among the ill-fed poor of Bengal. This mischief, occurring in the perineum, has not, as far as I am aware, been commented upon as occurring elsewhere. Most of the cases which I saw were in native prisoners. One's attention is called by the native doctor to a man with extravasation of urine, but there is no evidence that sudden rupture of the urethra has occurred. Upon making free incision it is found that the whole perineum is occupied by a huge gangrenous abscess, which in some cases does, and in others does not, communicate with the urethra. In these cases I used to say that the man had begun to die at the perineum. A distinguished officer died in this manner in Bengal some years ago. I believe that, elsewhere, extravasation of urine in old stricture cases generally results from the formation of abscess outside that portion of the urethra which gives way. When at Howrah I was called to see an elderly native who was famed as the wealthiest man in Calcutta. He had, after suffering from fever, begun to die at the scrotum, and expired in a few hours after my visit. As far as I am aware, these forms of gangrene of the perineum and scrotum are always speedily fatal. Many of those who suffer from *sloughing of the cornea* (which, in its causation, appears to resemble that sloughing of the cornea

(b) "Clinical and Pathological Observations in India," page 518.

(c) *Bengal Medical and Physical Transactions*, vol. viii., part i., page 23.

(d) *Ibid.*, vol. v., page 101.

(e) *Op. cit.*, Appendix, page exiv.

(f) During his eleven days in hospital this poor man lost two pounds of blood by V.S. twice, and was again bled to syncope, and had twenty leeches applied in the course of the inflamed vein. On post-mortem examination "there was only a slight blush in the colon, showing that active inflammation had existed and was subdued by the repeated use of the lancet." In the present day one large dose of ipecacuanha would probably have saved all this trouble.

(g) *Bombay Medical and Physical Transactions* for 1830.

(h) In Ziemssen.

(i) Dry gangrene, due to other than a malarious cause, may, of course, occur in India. Dr. Campbell saw a case (*Bengal Medical and Physical Transactions*, vol. i., page 287) in which it may have been due to eating diseased grain. My friend Dr. Theodore Duka records the case of a young Madrassee woman, aged fifteen years and a half, in the eighth month of her first pregnancy, which occurred at Simla. There was dry gangrene of both legs to within three inches of the knee-joints. Amputation was performed; no bleeding vessel had to be secured. The patient had an easy recovery, and gave birth to a well-formed full-grown child. No enlargement of the spleen or liver could be detected.



which Magendie produced in dogs by feeding them exclusively on bread) sink—death commencing at the cornea. But, in a long course of years, a good many of my patients recovered. I, at first, adopted the treatment much employed by my friend Mr. Samuel Browne, of Belfast—the application of a saturated solution of nitrate of silver. With this I obtained some success. But, latterly, at the recommendation of Mr. C. Macnamara, I merely closed the eyes with fine cotton-wadding, due attention being paid to cleanliness. Under this treatment a considerable proportion of cases recovered, especially where they were taken early, and when only one eye was affected. We always looked for this sloughing in every low case. The first sign is a generally sunken appearance of the cornea, such as is seen after death, with a cloud of milky opacity of a segment of its lower edge, as if its attachment to the sclerotic had been slightly separated with a cornea knife. Of course, quinine, wine, and the best nourishment are indispensable in these cases.

*Malarious Phagedæna (Cancrum Oris)*, although occurring in the same class of cases of malarious cachexia, especially in advanced splenic disease, is not attributable to the same immediate cause as the gangrenes above described are, the plugging of afferent or efferent bloodvessels. It is not simple gangrene, but is a true sloughing phagedæna. In many of these cases the patients are brought to us death-stricken, and expire in a few hours without separation of the slough. This looks like simple gangrene, but it is not. When we can get the slough to separate and to put on healing action, we notice that, while the ulcer may be healing at two-thirds of its circumference, the edge of the remaining segment is being eaten away by phagedænic ulceration, and that the sore is rapidly extending at that part. I have seen *cancrum oris* (only in young children) in England, before I went to India and since my retirement. The disease appears to be nearly the same in this country and in India. There, in old times, it used frequently to be caused by the use of mercury in our hospitals. Three grains of calomel would set it up in a cachectic subject. Now, cases are brought to us where it is attributable to mercury given by Kobirajes. But we often observe its appearance in our own wards in patients who have not taken mercury. It generally occurs in cases of splenic cachexia, after repeated attacks of malarious fever. Soon after I joined I was surprised to see the disease in a middle-aged native man in my Jail Hospital at Chittagong. In 1834 the editor of the *Indian Journal of Medical Science* mentioned the case of a young sepoy who had taken five grains of calomel in two pills on account of a slight attack of fever. In about thirty hours his face began to swell. There was no salivation; the left cheek “completely sphacelated away, and the poor fellow sank.” Dr. Macgregor gives (k) the fatal case of a European soldier, ætat twenty-one, who had suffered from Dysentery, Dropsy, and Fever; and a second, the report of whose case is headed, “Dysentery and Dry Gangrene succeeding the accumulation of Calomel in the system.” A case occurring in a European soldier, ætat twenty-two, with enlarged spleen, got at Roorkee, has lately been published by Mr. P. W. O’Gorman. (l) In 1836, Dr. Corbyn mentioned (m) that, some years previously, in Arracan, he had seen a great deal of phagedænic affections which resisted every application employed, although many of these had proved efficacious in checking similar disease elsewhere. Phagedæna invariably supervened when the constitution had been previously debilitated by repeated attacks of the Arracan Remittent Fever, in which disease the spleen was always more or less affected. A great number of patients were sent to a hospital formed at Barrackpore for their reception, but the failure of every means adopted was the lamentable result. I think that, upon reviewing the history of this disease, in cases not attributable to mercurialisation, and of venereal *noma pudendi* of the very poorest girls, and of “black lion” in soldiers in trying campaigns and in sailors just come in from long voyages, it will be found that *scorbutus* is almost always a factor in the causation of sloughing phagedæna. Three forms of this disease are common in paludal cases in Bengal. They commence as follows:—either (1) as a swelling of the cheek, with a slight vascular blush, in the European, commencing on one side at the commissure of the lips, and going on to commit almost unlimited destruction of soft parts and bone. This form

has always been fatal in my observation; although, in a few cases, the progress of ulceration has been tardy. (2) On turning down the lower lip a sloughing ulcer is seen in the mesian line where the mucous membrane of the lip is reflected upon the gum of the incisors. Here ulceration may go on to destroy the lip, alveolus, and more. (3) Opening the mouth widely, a portion of the ascending ramus of the lower jaw, about the size of a finger-nail, is seen, white like a piece of toothbrush handle, and quite denuded of mucous membrane and periosteum. When the second and third lesions occurred in patients under treatment in my beds, and I was able to act early, I now and then succeeded in bringing them through by means of quinine, support, and the daily application of the Compound Tincture of Benzoin to the diseased surface. Some use Nitric Acid; but, where there was so little vitality, I preferred the above stimulant.

In 1836, Mr. Egerton described (n) an outbreak of *noma pudendi* which had lately occurred in the Lower Orphan School of Calcutta, which was crowded. Children came in with fever; head hot, countenance sunk. They continued in a state of low fever from ten to fifteen or twenty days; when, in one case especially, sloughing supervened; an ulcer first appeared on the clitoris, spreading to the mons veneris and labia, which sloughed off. The girl recovered. Preparation 549 in the Calcutta Medical College Museum is “Enlargement of the spleen, taken from a girl who had been a sufferer from sloughing ulceration of the labia and the soft parts over the pubes.”

In some cases, especially when we can give quinine and support early, the ulceration becomes chronic. I had a native lad with large spleen in whom the disease assumed the first form, commencing at the cheek. After great part of the cheek had come away, what would, in a dog, have been one of the intermaxillary bones, separated, and was drawn out, and was made a preparation in our museum. The whole of the inner portion of the upper jaw, with two incisors and a canine tooth, and the palatine and nasal processes, are there. He improved in health; took his food, wine, and quinine well; the raw edges being quite clean. He kept a little hand-glass, in which he used to examine his face; and we became so hopeful that we might save him, that I consulted my friend Dr. Phin Smith, who thought that he could supply the loss by an apparatus of silver and gutta-percha. At length the whole of the integumentary edge would appear to be cicatrised, but, upon carefully examining this all round, it would be found that, somewhere or other, ulceration was undermining the margin and eating it away, as a spark extends on touch-paper. He died after he had been with me for several weeks.

At Chittagong, my assistant Babao Ramkinoo Dutt showed me a native boy with spleen, in whom the application, by a Kobiraj, of a gool, as an issue, had caused destruction of all the soft parts, integument, and extensor muscles of the whole of the back of one forearm, so that the shafts of the radius and ulna lay exposed throughout their course from elbow to wrist. Most careful dressing was being rewarded by the appearance of a clean surface and a few granulations.

(To be continued.)

## NOTE ON THE TREATMENT OF A CASE OF FIBRO-CYSTIC BRONCHOCELE (GOÎTRE).

By EDWARD BELLAMY, F.R.C.S.,

Fellow of King's College; Surgeon to Charing-cross Hospital.

A LADY, about forty-five years of age, was recommended to me for operative interference in a case of an enormous trilobed goître, which she affirmed had first appeared during her early confinements. She came from New Zealand in very weak health to have the growth removed; but this was obviously impossible, and the dyspnœa caused by it gave rise to such severe symptoms that it was surprising how she had survived her voyage.

The growth, involving the *left* lobe of the thyroid body, was about twice the size of a cricket-ball, apparently firmly fixed below, and on palpation showing one or two softish

(k) *Op. cit.*, pages ix. and lxii.

(l) *Indian Medical Gazette* for January, 1882.

(m) *Indian Journal of Medical and Physical Science*, vol. iii., page 545.

(n) *Ibid.*, vol. iii., page 545.



spots, evidently portions of cyst-walls. The isthmus was so enlarged that the trachea was completely covered by it, and I did not look forward to the almost inevitable tracheotomy without uneasiness.

I punctured several of the cysts with great difficulty, as the walls were so thick, and injected a little iodine in the usual way, and placed her under the treatment generally adopted—with no result beyond perhaps slightly lessening the great pressure on the trachea and recurrent nerves.

I next went a little more boldly to work, and, although I could not actually make out the position of the great vessels, I aspirated, fortunately, one very large cyst, and injected it with a saturated solution of tannic acid (1:2), and applied poultices. Suppuration shortly followed, but without any marked rise of temperature, and I passed in a fine drainage-tube into the body of the growth through two apertures of pointing, and proceeded in a like manner with other portions of the mass, which I could now the more readily attack.

The immediate result was great relief of the urgent symptoms, and in about two months' time a general sloughing of the entire mass of the left side, which I pulled out after incising the integument with much care, as I felt sure I was very near the great veins, and any tearing might have been serious. The mass was about as large as an average-sized potato, and on the base of its bed the internal jugular could be easily seen. The wound was plugged with carbolised lint, and allowed to granulate. The other portions of the growth were not interfered with, and the patient returned at any rate greatly relieved. She never lay up in any way, and went about her usual visiting without the slightest inconvenience.

Wimpole-street, W.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### LIVERPOOL ROYAL INFIRMARY.

#### SERIES OF BONE AND JOINT CASES.

(Under the care of Mr. RUSHTON PARKER.)

(Concluded from page 346.)

#### FIVE CASES OF DEFORMITY OF LOWER LIMB, TREATED BY SIMPLE FRACTURE OF THE FEMUR.

*Case 8.—Incurvation of Right Thigh, laming the Patient—Fracture of the Femur, permitting the Hip, Knee, and Ankle to be in the same Straight Line—Perfect Cure after Union.*

SARAH A. E., aged fourteen and a half years, visited the Royal Infirmary in May, 1878, to show the completion of her cure, which was effected, however, in the Stanley Hospital, where she had been admitted early in October, 1877. She was fairly stout generally, being also well built and of moderate size as to her arms and trunk, but of short stature owing to the stunted length of the lower limbs. The tibiae were flattened laterally, and bent with the convexity forwards—the right rather more so than the left. The bones were quite strong, and the left limb altogether was quite useful, but the patient complained of weakness in the right knee. This complaint was at first but little heeded by Mr. Parker, as no obvious reason for it was recognised on examination in the standing posture at her earlier visits. After repeated and persistent complaint, and the assurance of her mother that the girl's disablement was authentic, her right limb was examined more closely as she lay down. On placing the upper part of the thigh in a position of normal symmetry, it was found that the leg lay across and in front of its fellow, instead of parallel with it. This was found to be due to a curve in the femur rather below the middle, the convexity being outwards, and to a rotation of the lower end of the bone, causing the back of the condyles to look obliquely inwards. The effect of this was that one of the three joints was always out of the line of the other two; and although the bones, joints, and muscles were all strong enough, the attempt to use the limb as a prop to the body could only be made at a strain upon the knee-joint (of which she most complained), that was now comprehensible enough. She was put up in a Thomas's

knee-splint, the limb being fully extended with the aid of stirrup-strapping to the leg, and lateral bandaging being brought to bear, by pressure and counter-pressure, on the knee and femur, in the hope that the bone might be induced to grow into the desired position. But it soon became evident that the time for any such process was now past in this case, and that the bones were far too short and too strong to be influenced in that way. After a month, therefore, further trial was abandoned, and fracture of the femur determined on if practicable. This was done under ether on November 16, 1877. The knee-joint was first fixed straight in a series of padded splints of sheet-iron, enveloping the upper half of the leg and the lower third of the thigh, and tightly bandaged on so that that part of the limb below the femoral curve became stiff enough to serve as a suitable lever. The thigh was laid on its outer side, the upper part being held forcibly down on the table, the convexity of the curve lying on the edge of the table, and the rest of the limb projecting beyond the edge, being held by the operator. It was then found not difficult with such powerful leverage to break the thigh at the spot desired. When the crack occurred, after a short effort, the limb was easily straightened until all the three joints were in the same straight line, without entirely separating the fragments on the previously convex side. The splints around the knee being removed, Thomas's knee-splint was then replaced, and four sheet-iron splints, padded with boiler-felt, surrounding the femur, put on in addition, for due fixation of the fracture, somewhat in the manner referred to in Cases 6 and 7 (September 22). One of these splints, a little longer than the others, supported the back of the thigh and knee-joint, swung between the bars of the Thomas's splint.

Three days later, the thigh was found free from pain and tenderness, the uppermost short splints having been lifted off for inspection and then replaced. A little fulness and elasticity also were perceived in the knee-joint from effusion of fluid. The patient was permitted to sit out on a chair.

After five days (November 21) the effusion into the joint, having increased, was drawn off by aspiration through a needle the size of a No. 2 catheter. The fluid was two ounces of bright liquid blood or bloody serum (see Case 3—July 14). At the end of a week she was up, and occasionally moving about the ward, the apparatus being a "walking splint," and permitting this. At the end of a fortnight she went home—wearing the splints, of course.

On December 19, five weeks after fracture, she called, and had the sheet-iron splints removed, the walking knee-splint, however, being retained.

On January 9, 1878, after eight weeks, she could bear a good part of her weight on the limb without the splint, which she then wore part of each day only for rest.

In the end of May, 1878, she called at the Infirmary to show herself. Having to come about three miles, she wore the splint for that occasion only, but she had discontinued its general use for some months previously. The limb was in every respect useful, and has continued so ever since, the three joints being suitably in line, though the bones are, as they have all along been, deformed by rickety curves. These last, however, are not a source of mechanical inconvenience, and therefore require no interference.

*Remarks.*—It may appear astonishing that this patient should have been allowed to get up a week after fracture of the femur. But the fracture was not a complete one, and therefore was particularly easy to manage after once being set. Added to that, but apart from it in relation to other cases, the apparatus used secures a degree of immobility hardly attainable by other means, and one that would permit safe transport in almost any case, if that should happen to be required; and, in the case of small children, allows their easy, safe, and therefore justifiable treatment as out-patients—a matter of great convenience, sometimes, to all concerned. The effusion into the knee-joint is not to be wondered at, considering that in making the fracture the articulation must have been submitted to a severe sprain, in spite of the protecting splints around it. Effusion into the knee-joint, or around it, or both, is, in cases of fractured shaft of the femur, a common attendant feature that seems to be hardly ever alluded to. The fact was first made known to the writer during a clinical lecture at the Charité Hospital in Paris, April, 1870, by M. Gosselin, who showed a femur, recently fractured, from a case otherwise speedily fatal,



*à propos* of which he said that he had often found cases of fractured femur followed in a few days by effusion into the knee-joint of the same side. Mr. Parker can confirm entirely the observation of M. Gosselin, having found the effusion in almost every case of fracture of the shaft of the femur that he has subsequently seen, and also occasionally in fracture of the upper part of the leg.

*Case 9.—Twist of Lower Limb, corrected by Fracture of Femur and Rotation of Lower Fragment with the attached Leg.*

James V., aged ten, under treatment since January, 1878, for the correction of double knock-knee of an extreme kind. The left limb had already been straightened by gradual extension and lateral compression with bandages on a Thomas's knee-splint; the right was also straight; and both limbs were now in calliper knee-splints with boots attached, but the front of the right knee-joint was turned outwards, and the inner condyle looking forwards. Both tibiae were compressed laterally and curved in a rickety fashion, but the right was flexible, while the left was rigid. It was thought that fracture of the femur would permit the knee-joint to be turned round to its proper attitude, while the softness of the tibia would permit this to be done without twisting the foot inwards or even breaking the tibia. The knee was accordingly fixed with sheet-iron padded splints, as in Case 8, and the patient put under the influence of ether on January 24, 1880. The femur was without difficulty broken, a little below its middle, across the edge of the operating-table, and the lower fragment forcibly twisted inwards rather more than was absolutely required, until the knee-joint occupied, without elastic recoil, its proper position, with the patella forwards. The foot was meanwhile easily maintained in its former proper position, owing to the flexibility and thinness of the lower third of the tibia. The limb was put up in Thomas's longer knee bed-splint, with side plasters, short splints of sheet-iron, etc., as in the preceding cases of fractured thigh.

An excellent union, without noticeable incident, had resulted by March 15 of the same year, when a calliper splint, made of full length so as to take a portion of the weight of the body, was replaced.

*Case 10.—Double Bandy-Leg, treated by Antiseptic Osteotomy of both Tibiæ; afterwards by Simple Fracture of one Femur.*

Emma J., aged seven, was admitted in January, 1882, having rather conspicuous bandy-legs, owing to rickety curve of the tibiae with the concavity inwards. Simple fracture of each leg under ether, February 1, 1882, was first attempted, with the hands pulling the patient's limb across the knee of the operator—a method that easily succeeds in some cases. But the bones were too short and too strong for this; so osteotomy with a narrow saw, introduced through a small incision, was at once performed under carbolic acid spray. After sawing through part of the thickness, the fracture of the tibia was completed by hand, a Lister gauze dressing put around the leg, and a couple of sheet-iron lateral splints outside, with a bandage over all. In each case a simple, uncomplicated healing resulted, with a decided diminution of the leg-curve. But when she recovered the strength of her limbs, it became evident that her condition of bandy-leg still remained. On laying her down and placing the upper halves of the thighs in a position of normal symmetry and parallelism, the cause of the bandy-leg deformity was discovered (as in Case 8) to be due to distortion of the femur on both sides. Here, however, the lower ends of those bones were rotated in, so that the inner condyles stood forwards and the outer condyles backwards nearly a quarter of a turn in the attitude in which she lay. The legs in this attitude crossed each other—the ankles, knees, and hips not lying in the same straight line. Accordingly, in the month of June, 1882, under the influence of an anæsthetic, the right femur was broken across the edge of the operating-table, the knee-joint having been previously fixed, as in Cases 8 and 9. The lower fragment carrying the leg was rotated inwards, and the limb set in Thomas's bed-splint, as in the other cases.

The bone quickly united, and the patient was allowed to go home at the end of July, by which time she could stand upon the limb, the lightness of her weight and the strength of her bones permitting this without further precaution.

As the child had become rather anæmic during her stay in hospital, she was sent to get fresh air until after the

vacation. The shape of the limb was now entirely satisfactory as regards general symmetry and the line of the joints, the only drawback being the slight tibial curve still remaining—a defect of no mechanical consequence, only visually recognisable, and not further remediable.

The other limb has not yet been put right, owing to a prolonged absence of the child in a distant part of the country. It is still, however, in contemplation. She was last seen several months after her discharge, the limb retaining all the essentials of strength and efficiency.

*Case 11.—Double Knock-Knee, due to Incurvation of both Femora, corrected by Simple Fracture of each Bone.*

Fred W., aged eleven or twelve, half-brother to the preceding case, was admitted in April, 1883, to have his legs straightened by such means as might seem best suited to his state, and was examined several times. It gradually appeared that in his case the deformity was owing chiefly to incurvation with twist of the femora. On April 27 the right thigh was broken and reset, as in the other cases, the limb being, after sound union, placed in Thomas's calliper splint with boot attached. On June 22 the left limb was broken, and the lower fragment with the leg thoroughly twisted into position. A similar after-treatment was adopted, the patient being sent home at the end of July, walking with a calliper knee-splint on each limb. The result was perfect on the left side, where a much more thorough twist was adopted after fracturing the bone.

About September he was seen again, the left limb being perfectly efficient without splint. In the case of the right the benefit was much less, owing to the defective employment, it is believed, of the twist manœuvre. A refracture was advised, but the patient declined it. Under the circumstances, he was told to continue wearing the splint, keeping the knee-joint in line with leather bandages attached. He has not been seen since.

*Case 12.—Fracture of Left Femur, with Twist of Lower Fragment, to correct Genu Valgum.*

Herbert B., aged five, was similarly treated on July 27, 1883, the fracture being made at or slightly below the middle of the bone. A simple and (after the first day) painless recovery was made, with restoration of the proper line of the limb. He was discharged within a month of operation. The case was one of rickety bend of the tibiae, the convexity forwards, with genu valgum, pronounced on the left side, but slight on the right. The tibial bends are not a source, apparently, of mechanical inconvenience.

When seen on December 14 he was very vigorous, active, and well able to walk and run. There was a very slight degree of double genu valgum, which it is believed he will grow out of with the use of boots having sloping heels, the inner sides being high. He is still under treatment with that object.

*Remarks.*—Among the various forms and degrees of knock-knee, bandy-leg, and other deformities of the lower limbs, there is some scope for selection in the method of treatment. In childhood much can be done with the aid of splint and bandages alone, without operative interference at all, to favour the resumption of proper line by natural growth, as has been well said by Mr. Edmund Owen in the *British Medical Journal* of February 21, 1880. The force that distorts young limbs is apparently not great when the bones are abnormally soft, or the ligaments weak or overstrained. Similarly, the force required to train such limbs back to the proper line is frequently but slight when diligently and carefully employed. But there are cases in which, even at a very early age, the bones have become too hard, and the curves have become too abrupt, to permit of successful mechanical training in aid of natural growth. Simple fracture of a bone, whether tibia or femur, is, in certain instances, effectual in permitting replacement of the joints of the limb in suitable line one with another. The mere shape of the bones is often of no moment in determining the efficient strength of a limb; and, as a general rule, the present writer is now more particular about the relative position of the joints in one and the same straight line than about the exact shape of the bones. The latter may be obviously deformed without interfering with the mechanical efficiency of the limb, provided the joints be in line; whereas, as some of the above cases show but slight deformity of



bone may lead to conspicuous weakness and deformity of limb. These cases illustrate a single item in the wide domain of treatment, and do not interfere with the useful fact that antiseptic osteotomy effects the correction of similar deformities in cases to which simple fracture or mechanical training are not applicable.

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## Medical Times and Gazette.

SATURDAY, DECEMBER 29, 1883.

### THE MEDICAL HISTORY OF THE YEAR.

#### I.—POLITICS.

THE Parliamentary Session of this dying year, 1883, was, to use some of the favourite epithets of the day, of phenomenal length, but was anything but epoch-making. Very few Government measures of primary importance were carried, and, as regards medical legislation, the session was worse than barren. Parliament met for business on February 15, but, to the surprise and disappointment of the profession, the Speech from the Throne contained no mention of any medical or sanitary measures. In the following week, however, it was officially announced in both the Houses of Legislature that a Government Bill for the amendment of the Medical Acts would be introduced in the House of Lords; and the measure was brought in by the Lord President of the Council, Lord Carlingford, on March 19. It is a very important, large, and lengthy measure, intitled "An Act for the Consolidation and Amendment of the Law relating to Medical Practitioners," and framed on the lines of the recommendations of the Royal Commission on the Medical Acts. The Bill—for it is still only a Bill—has been dealt with so fully and in such detail in our first volume for the year that we need not here allude to more than its principal provisions. It proposes to abolish the existing Medical Council, and to appoint in place thereof a new one, consisting of eighteen members only; and this new Council is to contain four members elected by the votes of the registered medical practitioners of the United Kingdom—the so-called direct representatives of the profession; two for England, one for Scotland, and one for Ireland. Further, individual representation of the medical authorities—the universities and corporations—on the Council is to be superseded by representation through the Medical Boards; the English Board electing four, and the Scottish and Irish each two, members. And, lastly, the new Council is to have

supervision and control over the Medical Boards. The Bill provides for the establishment in each of the three divisions of the United Kingdom of a Medical Board, to be constituted of members chosen by the medical authorities of that division of the kingdom to which each Board belongs. The duties to be imposed on these Boards are of great importance: they include the preparation of schemes for the final examinations; the appointment of examiners for, and the direction of the nature and conduct of, such examinations. The question whether the preponderance of power, or at least of representation, on each Board should be given to the universities or to the corporations in each part of the kingdom, excited great interest and contention. It became the main point upon which opposition to the Bill was concentrated, and was the determining cause of its failure to pass into law. When the measure was introduced, the Board for England consisted of fifteen members—two to be chosen by each of the Universities of Oxford, Cambridge, and London, one by the University of Durham, and one by the Victoria University, Manchester; three by the Royal College of Physicians, three by the Royal College of Surgeons, and one by the Apothecaries' Society. The Board for Scotland was given eleven members—three to be elected by the University of Edinburgh, two each by the Universities of Glasgow and Aberdeen respectively, and one by the University of St. Andrews; and one each by the College of Physicians of Edinburgh, the College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, respectively. And the Board for Ireland had eleven members—two to be elected by the University of Dublin, two by the Royal University of Ireland; three each by the King and Queen's College of Physicians and by the Royal College of Surgeons respectively, and one by the Apothecaries' Hall. But, as finally amended in the House of Lords, the representation of the Apothecaries' Halls was dropped, and the proportions of the representation of the universities and the corporations was changed as regards the Boards for England and Ireland. On the former of these two Boards an additional representative was given to each of the Royal Colleges, and on the latter an additional representative was given to each of the universities, and one was taken away from the King and Queen's College. The constitution of the Board for Scotland remained unaltered. These amendments were generally approved; but met with determined hostility from the corporations in Scotland and Ireland, and decided opposition from the Apothecaries' Society of London. Some other important amendments were also accepted during the passage of the Bill through the Upper House; such as the omission of the proposal for an annual fee for registration, the abandonment of a provision that every person passing the final examination of a Medical Board should be entitled to use and to register the title of Licentiate of the Medical Council in Medicine, Surgery, and Midwifery, and the addition of words permitting the registration of all diplomas granted by the medical authorities. The amended measure was brought forward and read a first time in the House of Commons without delay; was put down for a second reading on May 10; was promptly blocked; and, without having been carried a stage further, was at last abandoned by the Government a few days before the close of the session. Such a result, after all the time, patience, and labour bestowed on the measure by Lord Carlingford and Mr. Mundella, was very disappointing. In the House of Lords the Bill had been so much improved that all parties concerned might well have been content, to say the least, to accept it, in order to put an end to the agitation and uncertainty that have for so long hindered the work of the Medical Council, and kept medical students, the schools



and the examining bodies in a state of troublesome and mischievous uncertainty and worry. Should the Bill be introduced again next year, the Government must make it a measure of primary importance, to be pressed forward with all possible weight, insistence, and persistence, or there will be no chance of its being carried. Experience has amply proved that a very little steady, stolid hostility may suffice to wreck a measure. A practicable alternative would be the introduction of a very short Bill, dealing simply with the requirements for registration and the re-organisation of the Medical Council; but it is not probable that either the Government or the British Medical Association would see fit to support such a measure as that.

In April the House of Commons, by a vote of 182 to 110, agreed to Mr. Stansfeld's motion, "That this House disapproves of the compulsory examination of women under the Contagious Diseases Acts." The resolution was arrived at in the teeth of the evidence given before the Select Committee on the Acts, and in spite of the very decided and weighty opinions in support of them given by those members of the House and of the Government who had had the best opportunities of becoming well acquainted with their working. The Ministry were divided on the subject, and therefore the House was left without any guidance from the Government, as such, in the matter; but the Prime Minister, nevertheless, insisted that Government was compelled to carry the resolution of the House into action without delay. The result has already been a disastrous increase of the diseases which Mr. Stansfeld and his colleagues have taken under their special protection in the towns to which the Acts were applied; and that increase will gradually affect the population at large. The success of the Anti-Contagious Diseases Acts party encouraged the Anti-Vaccinationists; and Mr. P. A. Taylor brought forward a motion for the repeal of the compulsory clauses of the Acts; but, owing largely, no doubt, to the effect produced by the masterly speech of Sir Lyon Playfair, and the very able support given him by Dr. Cameron and Sir Charles Dilke, the motion was rejected by 286 votes against 16. Two Bills to provide for the Compulsory Notification of Infectious Disease were introduced; but neither of them made much progress. Several provincial corporations, however, succeeded in getting their local Bills passed; and four towns—Burnley, Hartlepool, Heywood, and Portsmouth—obtained powers for the compulsory notification of infectious disease. The time has surely come for Government to take this subject into its own hands. It is a grave scandal that legislation on a matter of such vast import to the public weal has been left to be nibbled at by provincial corporations and vestries.

The report of the Committee appointed to inquire into Hospital Management and Nursing in the Field, and the evidence laid before them, most fully and amply vindicated the conduct and management of the medical officers of the army in Egypt. It was proved to demonstration that the very grave faults and shortcomings of which they had been accused were either absolutely without any foundation whatever, or were most grossly exaggerated. The report and the evidence have been so fully dealt with in our pages that it is enough now to state that it was admitted by Ministers in both Houses of Parliament that never had any campaign been carried on with greater success, as far as regards the services of the Army Medical Department, than the campaign in Egypt. The only faults and shortcomings that were clearly known to have existed were due either to the false and petty economy exercised in the organisation and training of the Hospital Corps, or to the exigencies of the military conduct of the campaign. The highest praise was due to the management and behaviour of the medical officers throughout. It is much to be regretted that Lord

Wolseley did not see fit to avail himself of the opportunity afforded him, by the discussion in the House of Lords on the matter, to explain his evidence before Lord Morley's Committee; and that Lord Hartington was not able to redeem his promise that ample opportunity should be given to vindicate the conduct of the medical officers when the vote for the medical establishments and services of the army was brought forward in the House of Commons.

## II.—SCIENCE.

THE year which is now rapidly drawing to a close will not occupy so marked a position in the calendar of the history of Medicine as either of its immediate predecessors. We do not have, nor desire to have, an International Medical Congress here every year, nor can such a discovery as that of the tubercle-bacillus be an annual occurrence. The chief medical event of 1883 has been the outbreak of cholera in Egypt, which not unnaturally caused alarm throughout Europe, and led to a sanitary activity, in our own country at any rate, which cannot have been otherwise than beneficial. Many comments have been passed on the way in which the three great countries of Europe acted on receipt of the news of the outbreak. England, practical as usual rather than theoretical, and as in duty bound, took immediate steps to check its spread, and for that purpose despatched a dozen young medical men to Egypt under Surgeon-General Hunter. Within a month of their arrival the epidemic was at an end—*post hoc* certainly, but whether entirely *propter hoc* it would be hard to say. It may, however, be fairly claimed that the arduous and responsible labours of our professional brethren out there played a very important part in bringing about the speedy termination of the outbreak. France and Germany availed themselves of the opportunity afforded to make a scientific investigation into the nature of the disease, the latter sending out a commission under the personal guidance of Koch, the former one under the auspices of Pasteur. Koch's report, which was the first to come out, told us of the discovery, as a constant appearance in cases that had died directly from cholera, of rod-shaped bacteria in the follicular glands of the mucous membrane of the alimentary canal, and their penetration in severe cases beyond the glands into the various tissues in the immediate neighbourhood. Koch regards these bacilli as characteristic of cholera; but, having failed to induce the disease by inoculation in animals, he has obtained permission to proceed to the banks of the Hooghly, where he hopes, with better opportunities, to meet with better success. The French Commission did not think much of this intestinal bacillus of Koch's, which they averred was not present in the most malignant cases; but they laid great stress upon the existence in the blood of small, pale, badly refracting bodies, and stated that the blood, moreover, was profoundly modified in its chemical character. They were not, however, more successful than the Germans in their inoculation experiments. Surgeon-General Hunter did not deal with any such minute scientific investigations. It was his business, first, to stamp out the epidemic, and, secondly, to determine a practical point which was of immense importance from a commercial point of view. He had to decide whether the epidemic was endogenous or exogenous. After a long and careful investigation he came to the conclusion that cholera had been endemic in Damietta for some time previous to the outbreak. We have at present only his statement to this effect, his third report, containing the voluminous evidence on which he founded his opinion, being yet in process of preparation.

Mr. Watson Cheyne's report in the early part of the year to the Association for the Advancement of Medicine



by Research confirmed in every detail Koch's statements about the tubercle-bacillus. His experiments were performed with every antiseptic precaution, and he failed to induce tuberculosis by inoculation, except with the tubercle-bacillus. A similar result has quite recently been recorded by Dr. Dawson Williams, who repeated the original experiments of Drs. Wilson Fox and Burdon Sanderson, at the wish and under the direction of the former gentleman. He did not use full antiseptic precautions, but observed strict cleanliness as to his instruments and apparatus in all his experiments, and took care that the animals experimented upon were not exposed to the contagion of phthisis. He too could only induce tuberculosis by the inoculation of tuberculous material. The publication of these results at a meeting of the Pathological Society was followed by the admission of Dr. Wilson Fox that his former doctrines on the causation of tubercle were no longer tenable.

Our Societies have all been busy during the past year, as is evidenced by the bulky volumes they have so lately issued. The Pathological Society had a discussion in the spring on Diabetes, the outcome of which was a general admission that we do not as yet know much about it. At the Ophthalmological Society, Dr. Gowers opened a discussion on Eye Symptoms in Diseases of the Spinal Cord; and the Fellows of the Medical Society had a couple of field-nights with Tubercle-Bacilli. On the whole, the outlook, so far as Medicine is concerned, is encouraging; the number of able, earnest men ever alert to probe deeper into the mysteries of disease is constantly on the increase, and their labours cannot fail eventually to meet with success.

Though Surgery has not by any means been at a standstill, yet the past year has not been characterised by any startling novelties either as regards doctrine or practice. Antiseptic surgery, after much opposition and controversy, has thoroughly settled down into an everyday affair, and its founder and promulgator has at last received that recognition from the State which his overwhelming services to science, and through it to humanity at large, have so well merited. It is not too much to say that the introduction of aseptic surgery has revolutionised the practice and the teaching of every medical school and hospital in the world. The triumphs of surgery which have been chronicled in this place at the close of the year have for many years past depended upon, and gone *pari passu* with, what is briefly called Listerism. The present year began, continued, and has ended with discussion on urethral and bladder surgery. Sir Henry Thompson, at the Royal Medical and Chirurgical Society in January and June, read papers on the treatment of tumours in the bladder and on a method for exploring the bladder by perineal section. This operation, which is practically the same as "Cock's operation," is proposed, however, for a new and important purpose. Sir Henry contends that by means of a urethrotomy—through the membranous portion, and without injury to either bladder or prostate—the bladder can be fully explored, and tumours or stone, etc., removed. Several cases bearing on this subject have been published during the year, noteworthy among which are some by Mr. Henry Morris. At Liverpool, again, bladder-surgery formed the subject of the Address in Surgery at the annual meeting of the British Medical Association, when Mr. Reginald Harrison gave a good retrospect of recent advances in this branch of surgery, in which he himself has figured not inconspicuously. Finally, Sir Andrew Clark has drawn further attention to the subject quite recently. Surgeons in discussing these views (which were fully set forth in our issue last week) seemed to doubt whether cases of "catheter fever" ever occurred without kidney disease, thus directly joining issue with Sir Andrew. The post-mortem evidence which

was brought forward in support of the paper was certainly not large, though it appeared to be conclusive. Over and above this, however, there is the accurate and well-developed clinical instinct, which must be allowed its full value in such a subject. We expect before another year closes that many new facts of importance will be at our disposal. Mr. Treves has made a valuable and suggestive communication on resection of portions of intestine. To Dr. West—a physician—belongs the honour of recording the first successful operation of pericardiotomy practised in this country. May we hope that the surgeon, when his turn comes to perform this operation, will meet with the same success. Dr. Rawdon, of Liverpool, has recorded a unique case of diagnosis and removal of a ruptured kidney. Mr. R. W. Parker brought forward a case of inguinal aneurysm in a boy aged twelve, with ligature of the external iliac artery. Some thirteen or fourteen cases of external aneurysms in persons under twenty years of age are the only others recorded. An important paper on removal of the thyroid gland has been published by Prof. Kocher, of Berne. One of the chief points of interest is the alleged onset in a few cases of a condition resembling myxœdema or the "cretinoid condition" in adults. Mr. Godlee has added one more to the list of successful abdominal sections practised for intussusception; the patient was an infant aged nine months. Dr. Frederick Taylor has recently advocated, and successfully practised, inflation for this disease.

### III.—ETHICS.

FROM the ethical point of view, using the term in its widest sense, the year has not been a happy one. To be ethically fortunate, a profession should have no annals, and that cannot be said of the medical profession in 1883. The year began with the inquest on Dr. Edwardes of Hounslow, and it closed with the judicial inquiry into the charges against Mr. Haffenden. In both cases a respected practitioner was accused of a serious offence, in both cases he quailed before the threatened infamy and put an end to his own life, and in both cases a tardy justice declared the dead man innocent of the charge. Besides the pain which such a tragedy in the career of a fellow-practitioner must inevitably cause to all of us, the profession have had a further reason for emotion in respect to these two cases. For there is scarcely one of us who might not conceivably be placed in the same position, and there must be many who cannot help feeling that in such a calamity their tenacity of mind and of life would be scarcely greater than that of Edwardes or Haffenden. There is, indeed, no profession the members of which are more sensitive as to their reputation than that of Medicine. Accustomed to finding their best reward in private and often silent approbation, and their worst penalty in an equally silent neglect,—not used, like lawyers, or politicians, or authors, to have their work and character made the subject of outspoken criticism and abuse,—medical practitioners are very apt to attach undue weight to every form of publicity, to exaggerate the honourableness of public honours and the infamy of public censure. This sensitiveness to praise or blame has its weak points as well as its strong ones. It is that, and that alone, which enables the profession generally to maintain such a high standard of honour, untainted by the commercial atmosphere of the day. But it is also that same sensitiveness which makes doctors sink heart-broken under public opprobrium, and wrangle as they have done especially during the past year, over baronetcies and knighthoods. No one can question that both Edwardes and Haffenden would have shown a more admirable strength of mind if they had been able to wait in patience till they were cleared of their accusations and



reinstated in public confidence. The ideal man is still, as in Horace's day, the man of uprightness and tenacity, whose equanimity no imaginable calamity can shake; and, in spite of the clamour about titles, we all of us have, nevertheless, a sneaking regard for the man who refuses them, and in our saner moments agree with Sir Thomas Browne that "to be destitute of fortune doth not any way deject the spirit of wiser judgments, who, being enriched with higher donatives, cast a more careless eye on the vulgar parts of felicity." If there are professions to whom we could give lessons in honour, there are also professions from whom we could appropriately take instruction in repose of mind.

In the third *cause célèbre* of the year—that of Messrs. Bower and Keates—it is fortunately left open to us to evince our sympathy otherwise than by vain regrets. The full particulars of this scandalous case are in the hands of the members of the profession, and it remains for them to give that support to their leaders, whereby Messrs. Bower and Keates may be in some measure indemnified for the damage done to their reputation, their pockets, and their peace of mind; and assurances may be demanded that such unfounded charges, if made in the future, shall be a matter of private and not of official prosecution.

Medical advertising, in its different forms, has during the year received—or rather compelled—a good deal of attention. Last year, it will be remembered, the College of Physicians passed a resolution strongly condemning the extensive advertising of medical books, and the profession was therefore considerably startled when, quite early in the present year, a long advertisement of a well-known medical book appeared in the *Times*, and some of the best honoured names in the profession were found cheek by jowl with quack announcements. The episode was an unfortunate one, but it was quickly explained and put an end to. The publishers alone were declared to be at fault, and it was heard with relief that it was no one within the profession who had thus flouted the sacred College. But the College, having been thus successful in its crusade against the advertising of books in the lay press, has another herculean labour before it—to prevent the advertising of names by the same channel; in other words, the publication of medical bulletins. The College has not, so far as we know, as yet come to any resolution on the subject; but within the last year or two the custom has so grown both in frequency and vulgarity that some action will shortly be demanded by the almost unanimous voice of the profession. It may be readily admitted that, in an individual case of illness, the folly of friends, the curiosity of the public, and the competition of journalists may render it difficult for the medical attendant to keep his name out of the public prints; but that is only the greater argument for an authoritative expression of opinion on the subject by the leaders of the profession. It is difficult to believe that if the reasons for condemning this specious form of advertisement were candidly explained, the public and the press would not give their aid towards suppressing it. The subject is ripe for decision, and before another year is over we hope to be able to announce that it has been decided in the sense we advocate.

The discussion on the uses of out-patients is of such recent date that it may be dismissed in a few words. It caused considerable excitement amongst the class of people who support the hospitals, and has driven many of them into the arms of the homœopathists. That was foolish of them, of course: for homœopathy claims to be based on experiments on the physiological action of drugs, and its followers, believing as they do in a remedy for every complaint, would be false to their faith if they were not constantly on the scent of new specifics. They claim too that they have known nitrite of sodium to be a dangerous drug for years—a know-

ledge which could only be derived from experiment. The public, however, invariably connects homœopathy with infinitesimal doses administered on principles settled once for all a couple of generations ago. It will be said, of course, by those who can afford to disregard public opinion, that to draw attention to the pecuniary loss which would result to the profession if it took up an unpopular position in this question is to treat it on selfish grounds. But an argument of this sort will appeal to minds which are not open to other reasoning; and if the public will is a good argument to excuse medical bulletins, it is an equally valid one for discountenancing the claim to regard hospital patients as material for experiments.

### SYPHILIS, RICKETS, AND STRUMA.

THE connexion between congenital syphilis and rickets has long been a fertile subject of discussion, and although authors are still at variance as to their exact etiological relations, there are few who do not feel that a vanishing syphilitic taint may be a factor in the causation of rickets. On the other hand, the connexion between congenital syphilis and struma is not yet so clearly defined; at all events, it is not so frequently alluded to nor so generally acknowledged. In tracing this connexion, if any, one may also ask whether there is any connexion between rickets and struma. The first point to be determined in seeking a solution to these problems, is whether congenital syphilis is a specific disease in the same sense as acquired syphilis? The answer to this question is not so simple a one as at first sight appears. It is well known that if a healthy wet-nurse suckles a syphilitic infant, she *may*, and probably will, contract a typical hard chancre on her nipple, and subsequently develop all the symptoms of secondary disease. It is, however, not so well known how long such an infant is liable to communicate the disease, nor whether even it communicates the disease under all circumstances. If there be sores in the child's mouth, contagion is almost certain; but if not, contagion is quite uncertain. And that the liability to spread the disease becomes less and less as the child grows, is also a matter of daily observation. For instance, we seldom meet with chancres in children under any circumstances; and when we do they are still more rarely the result of inoculation from a congenitally syphilitic infant or child. Yet among the poorer classes the practice of "minding the baby" while its mother is away is exceedingly common. Even in a somewhat higher social scale, where syphilitic infants are still common enough, how often do we meet with cases of syphilis in the girls employed as nurses, who, though they do not suckle the children, at least kiss them numberless times a day? In this station of life, where several families occupy the same house, the children so freely intermix, that if congenital syphilis were as contagious as ordinary syphilis, there would be no lack of cases for clinical observation. In truth, however, syphilis acquired in this manner is a great rarity, and this would seem to depend on the fact that congenital syphilis differs materially from ordinary syphilis, in that it rapidly loses its specific characters, one of the chief of which is the power of reproducing itself. Even vaccino-syphilis is extremely rare, notwithstanding an immense amount of manifest infantile syphilis at the period of life when vaccination is usually practised, and when congenital syphilis is thought to be most infective and the constitution most receptive. Going still further ahead, it is well known that parents, the subjects of congenital syphilis, may beget and bear perfectly healthy children.

The question thus arises, What becomes of the specificity



of the original poison? The danger of begetting syphilitic children seems to decrease with the lapse of time. Furthermore, the dose of syphilis in various members of a family is not at all equally distributed, and it is not always the early children of a marriage who suffer most. And if this diminution of intensity is possible in the parents, to what degree of attenuation may not the virus attain in the next generation? What becomes, then, of the specificity of the virus? Unfortunately for us, no investigator has yet found out its intimate nature, and until this is definitely settled our answer can be little better than guesswork. To believe that the disease is due to a micro-organism, the presence of which in the blood gives rise to a process of fermentation, after which the organism dies and becomes inert, is a most seductive doctrine, and one which appears to answer many of the questions that arise; but how does such an organism get into the foetus which is being carried by a non-syphilitic mother? and how does the mother in so many cases herself escape? Are there any facts either for or against the view that rickets or struma represents this attenuated form of congenital syphilis? In other words, are rickets and struma manifestations of congenital syphilis deprived of its specificity?

In the sense of being "specific," congenital syphilis presents a great contrast with both rickets and struma, neither of which at any period shows any such tendency, as far as we know. Though this character, as we have said, soon vanishes, yet the disease still retains certain other special features. The three diseases may all be more or less severe in type; they may be localised in a single system, or may be multiple and occur in several systems. Thus, syphilis may attack one bone or many, the muscles, or the nerves. Rickets may be chiefly present in the legs, while the rest of the body appears healthy; or, the legs being unaffected, the intestinal tract may suffer,—and so on. While, as regards struma, although the lymphatic glands are its favourite seat, strumous caries or synovial disease is almost as often present, and each of them when present is equally typical of the affection. We have thus certain characters which are common to the three diseases. No one, however, would mistake a rickety curve in the tibia for a syphilitic hyperostosis, nor *vice versa*. Not less typical also is a strumous caries; it is distinguishable from a syphilitic caries almost at first sight. In what relation, then, are syphilis, rickets, and struma to be regarded? Are they stages of one disease; are they in any sense allied to each other; or are they distinct manifestations of separate constitutional states?

We can only answer this last question by asking whether any two of these diseases occur in the same subject; we might even ask whether all three diseases may not occur in one subject. The first question can be answered in the affirmative without any hesitation. We frequently see cases of syphilo-struma, and almost as frequently cases of syphilis and rickets combined. Not infrequently, also, do we see a combination of rickets, syphilis, and struma, though such cases are, of course, much less common. In the combinations, one or other of the diseases may be predominant, but they each keep their individual characters. A case of syphilo-struma in a young child recently came under observation. She had pegged teeth, slight remains of keratitis, and some periosteal thickening just below the tubercle of the tibia on one side. Antisyphilitic remedies were used for some weeks, without any improvement taking place; the periosteal thickening began to redden and inflame, some of the nearest lymphatic glands became swollen, and finally showed signs of suppuration; the general health failed, and anæmia became pronounced. Mercurial treatment was suspended, cod-liver oil and iron being substituted; this was followed by great improvement in the general health, but the

local symptoms remained *in statu quo*. It was now decided to combine a mercurial treatment with the cod-liver oil, and shortly the patient commenced rapidly to mend. The periosteal thickening began to disappear, the redness and sense of fluctuation passed away, and soon no traces of the condition remained. Cases of syphilis and rickets combined are not less exacting in their treatment. Due regard must be paid to the duality of the cachexia, and the treatment must be in accordance. It has been argued that congenital syphilis brings about a condition of malnutrition, which favours the development of rickets or struma, or even both. But before accepting such a doctrine it must be shown that, on the one hand, syphilis is no longer present as such, and, on the other hand, that other factors which usually produce rickets or struma have not been present. Such proof, of course, is not attainable; and for the present, therefore, we must continue to accept the doctrine of separate but associated diseases, rather than seek to explain that which is admittedly obscure by the substitution of that which, to say the least, is doubtful.

## CHRONICLE OF THE WEEK.

THE Society of Medical Officers of Health assembled on Friday, the 20th inst., in considerable strength to hear papers on the question of the day by Dr. Tripe and Mr. Wynter Blyth, the former of whom pointed out the more serious defects in the Artisans' and Labourers' Dwellings Acts, and made suggestions for their improvement; while the latter gave an account of the work actually performed under these Acts by the Vestry of Marylebone during the four years he had been in office. A brisk discussion followed, in which several of the visitors—vestry clerks and surveyors—took part, but all agreed in condemning the dual authority created by these Acts; the cost and unreasonable delay of proceedings; the lightness of the penalties under the Nuisance Removal Acts, and the facilities afforded by the law for their evasion; and, lastly, the fact that the action of the Metropolitan Board of Works only aggravated the distress of the really poor, while all improvements, whether on a large or small scale, were paid for in the end by the poor, and not by those who were culpably responsible for their necessity.

It is understood that the Local Government Board are about to take immediate action in the matter, and to make a serious attempt to find out how far the sanitary condition of the homes of the London poor can be improved by putting into force the provisions of existing laws. The Acts in question are the Sanitary Act of 1866, Section 35; and the Amendment Act of 1874. By the former it is provided that the Local Government may, on application by the Nuisance Authority of a district, insert a notice in the *Gazette*, empowering the Local Authority to make regulations—1. For fixing the number of persons who may occupy a house, or part of a house, which is let in lodgings, or occupied by members of more than one family. 2. For the registration of the houses so let or occupied. 3. For the inspection of such houses and the keeping of the same in a cleanly and wholesome state. 4. For enforcing the provision of privy accommodation and other appliances and means of cleanliness in proportion to the number of lodgers and occupiers, and for the cleansing and ventilation of the common passages and staircases. 5. For the cleansing and lime-washing at stated times of such premises. By the Amendment Act the Local Government Board may itself take the initiative without any application from the Local District Authority; and the



same Act further provides means for enforcing the proper ventilation of rooms, the separation of the sexes, and efficient paving and drainage.

THE powers at the disposal of the Board are to be applied to nineteen of the metropolitan parishes and districts—viz., Marylebone, St. Pancras, Paddington, St. Mary (Newington), Camberwell, Clerkenwell, St. Leonard's (Shoreditch), Bermondsey, St. George's, St. Martin-in-the-Fields, Hampstead, Greenwich, Wandsworth, Holborn, Fulham, St. Saviour's, Plumstead, Lewisham, and St. Olave's. It is believed to be the intention of the Board to require regulations to be made in all these places, and also fresh regulations in the remaining districts. The Local Board authorities maintain that the statements made as to the condition of the homes of the poor in London are much exaggerated; but even if these dwellings are no worse than official optimism would have us believe, there is still crying need for improvement, and Sir Charles Dilke's resolution to do what he can with his available means, without waiting for a Royal Commission and Parliamentary action, with all its certainties of obstruction and delay, will meet with universal commendation.

DR. CLOUSTON, of the Morningside Asylum, gave a lecture at Edinburgh last week on the effects of the excessive use of alcohol on the functions of the brain. One of its most unquestioned effects, he maintained, was the production of absolute insanity. As a statistical fact, it was found that from 15 to 20 per cent. of the actual insanity of the country was produced by alcohol; and, as one person in every 300 of the population was insane, it followed that about one person in every 2000 of the population was deprived of reason, of the power of action, of the power of enjoyment, and of personal liberty, from the excessive use of alcohol. This gave about 17,500 persons at any one time in the British Empire who were incapacitated from this cause. They must also remember that these were merely the registered persons who had become insane through the agency of alcohol; and he had no doubt that for every one who thus became insane there were a large number who had become partially affected, and required to be deprived of their liberty. He had himself little doubt that out of the 1600 suicides that took place every year in England, probably half were due to the beginning of alcoholic insanity. Dr. Clouston does not appear to have said anything about the converse of his thesis—a subject which his large experience would have enabled him to treat with authority. Ere he holds forth again, he might advantageously inform us how many people drink alcohol to excess because they are insane from other causes.

AMONGST the papers in the last issue of the French medical journals we may note the following:—In the *Progrès Médical* there is the abstract of a lecture by M. Terrillon on Lymphadenoma of the Neck; the article by MM. Cornillon and Mallat on the Doctrine of Acetonæmia in reference to a Case of Diabetic Coma; a note by M. Talamon on the Lance-shaped Organism of Fibrinous Lobar Pneumonia; and a general review by M. Bricon on Coto, Cotoine, and Paracotoine. The *Gazette Hebdomadaire* contains the record of some fresh cases of Subclavicular Lipoma, by M. L. H. Petit. The *Gazette des Hôpitaux* contains articles on the "Bruit de Flot" of the Stomach as a Sign of Dilatation of the Stomach; and on Perforating Disease of both Feet, due to a Spinal Affection. The *Concours Médical* contains a note on the Articular Manifestations of Mumps, by Dr. Edmond Chaumier; and an article on Practical Obstetrics, by Dr. Langlais.

### THE RADICAL CURE OF HERNIA.

THE radical cure of hernia has, until within the last few years, been a comparatively rare operation. Five years ago Wood's operation was occasionally performed, and Wutzer's operation only served to test the knowledge of the student. In the Liverpool Medical Society, on December 20, a discussion which arose on a paper on this subject by Mr. G. G. Hamilton elicited the fact that within the last three or four years about a hundred and fifty radical cures have been performed by the surgeons of that city. Mr. Banks has performed between fifty and sixty, Dr. Alexander about thirty, Mr. Rushton Parker twenty-eight, the Surgeons of the Northern Hospital fourteen, whilst Messrs. Pughe, Rawdon, and others have operated on smaller numbers. The mortality has been *nil*, and the successes highly satisfactory to all as far as time has enabled them to judge. The operation consists in tying the neck of the sac, and severing the neck thus tied from the rest of the sac. Mr. Rushton Parker stops here, and has had a success quite satisfactory to himself. Dr. Alexander adopted that method for a time, but he now joins all the other surgeons in dissecting out the severed sac, because it makes the cicatrix firmer and gives a better support to the ligatured neck. In inguinal hernia especially, and to a certain extent in every variety, all the surgeons who spoke, with the exception of Mr. Parker, bring together by suture the fascial boundaries of the opening, which in inguinal hernia are formed by the pillars of the ring. Mr. Parker would only do this in exceptional cases. As to the material to be used for tying the neck of the sac and suturing the pillars of the ring, there was wide diversity of practice. In the Northern Hospital cases which were performed by Mr. Manifold, Mr. Puzey, Dr. Macfie Campbell, and Mr. Damer Harrison, chromic catgut was generally used for both purposes. Mr. Banks ties the neck of the sac with chromic gut, and brings the pillars of the ring together with silver-wire sutures, which are to be retained indefinitely. If the sutures irritate, all the better, as they can then be removed. If they do not irritate, it is still well, as they will always maintain their hold. Dr. Alexander uses catgut for the neck of the sac, and silver-wire sutures for the pillars of the ring. He removes these sutures before the wound closes, and looks with favour on healing by granulation. Mr. G. G. Hamilton recommended fishing gut or sulphurous gut for both purposes; and Mr. Rhinallt Pughe spoke highly of the latter as being pliable and making a firm knot. It was therefore evident that good results could be obtained by any of these methods, and that the kind of suture was not essential. This method of radical cure is capable of being performed in all kinds of hernia, reducible or irreducible. In all cases, the sac, having been dissected out from its surroundings, and especially from the cord in male inguinal hernia, is opened, and, if irreducible, the contents explored, the adhesions severed, and omentum removed if necessary. Mr. Banks and Dr. Alexander have successfully removed great masses of adherent omentum in this manner. In reducible hernia the sac is always opened, to see that the hernia is *completely* reduced. This free opening of the sac is not, therefore, new in Liverpool, although Mr. Lawson Tait, in the last number of the *Birmingham Medical Review*, puts it forward as a new practice in that town. Mr. Banks described in great detail the cases suitable for operation. It need not be performed in young children except under exceptional circumstances, as a truss generally cured such cases before puberty was reached. The exceptional circumstances were a very wide opening, or the presence of the disease debarring an orphan from a charity school, or inability or dislike to wearing a truss. In adults it should only be performed in



omental hernia and in hernia complicated with undescended testis, on account of the exceptional danger of such cases. In ordinary cases of reducible hernia he would not operate unless life was rendered miserable by the disease, or the patient was thereby unfitted for work. When a well-fitting truss completely relieved the patient, he would not recommend an operation. As to the after-treatment, all agreed upon the advantages of a prolonged rest in bed for at least three weeks. Some of Mr. Parker's cases were up in ten days, and others in fourteen days, and he now believes that these periods were too short. In most of the cases no appliance was used afterwards. Mr. Banks, however, recommends a light truss to be always worn after operation. He does not believe in a *radical cure* of hernia in the sense of the patient being as strong in the region operated on as a perfectly healthy man would be. The wearing of the truss is no discredit to the benefits of the operation, and is an additional security to the patient. The results at the Northern Hospital were, up to the present time, ten cures and two failures. In two cases the interval was under six months, and therefore the question of cure could not be entertained; they had not failed. The dressing varied as much as the kinds of ligature and suture. Mr. Rushton Parker first introduced the operation into Liverpool, and thought the idea was new to others as it was original with himself. He afterwards found that it had been performed by Dr. Macleod, of Calcutta, by Drs. Annandale and Buchanan, and by some others. In the successful and frequent application of the operation it will be seen that Liverpool occupies an exceptional place. According to some writers in the medical journals, the operation is almost unknown in many places.

#### THE PARIS WEEKLY RETURN.

THE number of deaths for the fiftieth week of 1883, terminating December 11, was 1065 (583 males and 682 females), and of these there were from typhoid fever 23, small-pox 1, measles 7, scarlatina 5, pertussis 11, diphtheria and croup 54, erysipelas 7, and puerperal infection 5. There were also 42 deaths from acute and tubercular meningitis, 201 from phthisis, 45 from acute bronchitis, 70 from pneumonia, 73 from infantile athrepsia (29 of the infants having been wholly or partially suckled), and 29 violent deaths (20 males and 9 females). All the epidemic diseases have remained stationary or have diminished, with the exception of diphtheria. The deaths from typhoid fever and measles are notably fewer, but those from diphtheria have been progressively increasing for several weeks past. During the week there have been 1237 births, viz., 635 males (465 legitimate and 170 illegitimate) and 602 females (433 legitimate and 169 illegitimate): 88 infants were either born dead or died within twenty-four hours, viz., 49 males (36 legitimate and 13 illegitimate) and 39 females (26 legitimate and 13 illegitimate).

#### THE MCGILL MEDICAL FACULTY, MONTREAL.

WE have before us the interesting address delivered at the opening of the fifty-first session of the above Faculty by Dr. Joseph Workman, of Toronto, who is one of its oldest surviving graduates. It is entitled "Past, Present, and Future," but, as might be expected of an octogenarian, is taken up principally with retrospect, which, interesting as it is to us who are necessarily unfamiliar with the history of McGill College, must have been far more interesting to his hearers. But the address also contains some excellent advice to students, from which we may cull the following. Speaking of the tendency of young medical practitioners in rude rural districts to fall into habits of idleness, intellectual and moral torpor, and ultimately confirmed dissipa-

tion—a tendency not confined to Canada, we may add,—Dr. Workman says that not the least potent of the causes of this tendency is "the persistent mental overstrain undergone by some students of feeble enduring powers in their college courses. Having applied themselves too intently and too hurriedly to the proper subjects of their training, they become at the end utterly tired out, and, once liberated from their drudgery, they revolt against any resumption whatever of their past studies, despite the fact that on graduation day they may have been told by their zealous and well-wishing dean that they must ever continue students, or, indeed, that they must consider their real studies as only then beginning. All this is very good and beautifully sentimental, but, somehow or other, jaded brains, as well as tired limbs, ache for rest, and weakened mental stomachs call, at the least, for some change of diet. Change of mental aliment might, in these cases, work admirably, but how or where is it to be had? The libraries of young practitioners are not redundantly stored with volumes of classic literature, nor even with those on scientific subjects in affinity with their own; and rural libraries, where such really exist, present but a meagre number outside the run of sensational novels, distensively padded biographies, and wonder-filled travels. As to congenial, improving, intellectual society, any such hypothesis, in the villages and bush settlements of Canada, or even in the richer agricultural parts, would be too ridiculous a delusion to be indulged in by anyone outside of Bedlam." The true prophylaxis, Dr. Workman thinks, consists in contracting a love for one of the kindred sciences—botany, zoology, or geology,—the study of which will always keep the mind interested, and in cultivating a taste for good literature.

#### THE SANITARY CONDITION OF BIRMINGHAM.

IN presenting his tenth annual report on the health of the borough of Birmingham for the year 1882, Dr. Alfred Hill, the Medical Officer of Health, congratulates the authorities on the fact that the sanitary condition of the town during the past year maintains, within a fractional variation, the highest position which it has occupied during the whole of the preceding decade. This variation, as measured by the death-rate, is 0.9 per 1000 of the population in excess of that of the preceding year, and only 0.1 in excess of that of the year 1880. Dr. Hill shows that on his appointment as Medical Officer of Health, in 1873, the death-rate was 24.8; in 1874 it was 26.8; and in 1875, 26.3. From that time, with the exception of the year 1878, when the figures were 25.2, the rate has steadily decreased. The high rates of 1874 and 1878, and the slight rise in 1882, are to be accounted for on each occasion by an epidemic of scarlet fever—a disease, the report says, which is found to recur with more or less regularity every four years; and in 1874 there was also an epidemic of small-pox conjoined with it. "Such a result of ten years' sanitation," Dr. Hill says, "seems clearly to establish the value of preventive medicine, and enables some idea to be formed of the enormous advantage to be gained by the development of a branch of medical science, which at present is only in its infancy as far as its application goes, and is under the disadvantage of having to contend with incomplete legislation, prejudice, ignorance, and other retarding influences. Surely the future, with advancing education and juster views of individual and social duty, may be reasonably expected to present a prospect of still greater sanitary advancement."

#### FLATTERING COMPARISONS.

THE generally received idea that "comparisons are odious" can scarcely be said to hold good when we set to work to compare the health of our own country with that of foreign



places. Taking as our authority the English Registrar-General, we find that the average annual death-rate during the last September quarter in twenty-nine colonial and foreign cities, having an aggregate population of rather more than fourteen millions of persons, was 27·5 per 1000. In the twenty-two European cities the average rate was 26·9 per 1000, against 19·9 in twenty-eight of the largest English towns. The lowest death-rates abroad were 18·0 in Christiania, 19·2 in Rotterdam, 19·7 in Geneva, and 21·0 in Copenhagen; the highest were 34·9 in Munich, 35·4 in Breslau, 37·1 in Berlin, and 41·1 in Madras. With regard to specific diseases, it appears that the deaths referred to small-pox in Paris, which in three preceding quarters had been 101, 154, and 181, declined during the September quarter to 78. The fatal cases of measles and diphtheria also showed a marked decline from those returned in the two previous quarters of the year; whilst the deaths from typhoid fever, which in the two preceding quarters had been 582 and 523, were in this quarter 524—equal to an annual rate of 0·94 per 1000, against a London return of 0·22 for the same period. The fatal cases of small-pox in St. Petersburg, which had been 232 and 129 in the two previous quarters, further declined to 41. This latter disease was epidemic during the quarter referred to in Madras, Brussels, and Prague. Measles caused 392 deaths in Berlin, 227 in Paris, and 137 in Munich. Diphtheria showed increased prevalence in Amsterdam, Berlin, Dresden, and Prague. The deaths referred to typhus and typhoid fever in St. Petersburg, which had been 321 and 356 in the two preceding quarters of the year, declined to 224 during this quarter, but were equal to a rate of 0·97 per 1000, against one of 0·23 from the same disease in London. Diarrhoeal diseases showed excessive fatality in many of the continental cities. The annual death-rates from these diseases, which averaged only 2·1 per 1000 in the twenty-eight large English towns, were equal to 8·2 in Breslau, 8·4 in Munich, 8·7 in Brooklyn, and 11·3 in Berlin.

#### SEWER-SMELLS.

SOME people boast that they have such delicate sensibilities that they can tell whether the wind has changed before they get out of bed in the morning; others are proud of their entire indifference to the weathercock and barometer. But, whether one's nerves be sensitive or not, in the streets of most towns there is one sign of a change of wind or of a variation in barometric pressure which one cannot ignore. Whenever there is a rise or fall of the mercury—if not indeed at other times—the ventilators and manholes of all but the best-laid sewers always give off a sickening stench. Many expedients have been tried in different towns to prevent or to conceal these exhalations from the nether world, but, if the sewers have been imperfectly constructed, invariably without success. Trays of charcoal have been fixed in the openings, but the charcoal becomes rapidly moist in the damp air of the sewer, and soon gets choked with fine dust from the roadway, so that unless the trays are daily replenished, at a ruinous expense, they do more harm than good, by preventing the ready ingress and egress of air which is necessary for the proper ventilation of the sewer. Moreover, even if charcoal is successful in deodorising the sewer-air—as to which the evidence is very contradictory,—it probably has little, if any, destructive influence on the germs which that air may contain. In many places, shafts have been utilised, with or without an artificially produced current. In either case they ventilate the sewers more efficiently than openings flush with the ground; but they are very unsightly, and as, if they are to be of any use, they must exist at short intervals, it is difficult to find situations in

which they will not discharge their current in quite a dangerous proximity to dwelling-houses as the street gratings. At best they are but a palliative of an evil which ought not to exist. The plain truth is, that if a sewer is well laid, well kept, and well flushed, the air in it should not be offensive. It is only when sewage is allowed to remain and decompose in it, owing to the sewer having an insufficient fall, or being unevenly constructed, or too large for the amount of sewage passing through it, that the air emitted by the ventilators is really offensive. Of course, if the sewage is already decomposing when it enters the sewer, as is the case where the latter receives the overflow from foul cesspools, or decomposing blood from slaughter-house cesspits, or even fresh blood, which coagulates and adheres to the sides of the sewer, the ventilators will smell, however well constructed the sewer may be. But, in a properly arranged drainage system, nothing but fresh sewage should be sent into the sewers, and that should leave them before it has time to decompose. Another most important point in the management of sewers is to keep them clear of roadsand, which, if it gains admission to them, will form deposits, impede the flow of sewage, and, becoming impregnated with decomposing matter, will emit a most offensive odour. This exclusion is only to be attained by efficient road-making and scavenging, and by the use of proper road-gullies, so constructed as to intercept sand and mud, and only to allow surface water to enter the sewer. In semi-rural districts a separate surface-water system may be required. As to manholes, they ought never to notify their existence to the nostrils of the passer-by, if they are properly constructed. But often the bottom of the manhole is lower than the level of the sewer; in which case sewage is allowed to accumulate in it, and the whole becomes little better than an open cesspool. It should always be borne in mind that, whether they smell or not, street ventilators are a safeguard; it is better that the sewers should discharge their offensive gases into the free air of the street than into the close air of our houses, for few houses even in the richest quarters of towns are so well constructed as never to admit an invasion of sewer-air. But we ought not to be satisfied until a drain-smell is as much unknown in our streets as in our houses. Wherever they exist they may bring with them disease and doctors' bills; cf. Shakespeare: "These exhalations, what think you they portend?" "Hot livers and cold purses."

#### FORENSIC MEDICINE IN THE UNITED STATES.

DETERMINED to give due prominence to the working of the medical examiner system, the last few numbers of the *Boston Medical and Surgical Journal* have had original articles on cases of difficulty or peculiarity which have been recently investigated. Dr. W. H. Taylor describes a case of delayed putrefaction in a body exhumed thirty-seven days after its burial in loose gravelly loam, free from frost. The body appeared perfectly fresh, with no colour or odour of decomposition about it. The integument, however, presented a hard, tallowy feel, indenting on firm pressure. Under the heading of a "Strange Case," Dr. O. T. Howe discusses the medico-legal points which arose in connexion with a death from numerous injuries on the head, giving his grounds for deciding that the death resulted from suicide rather than murder. Dr. A. Elliot Paine narrates a simple case of murder in which the interest lies in the proof of the continuance of vitality and power of voluntary movements for a considerable period after the skull had received a compound comminuted fracture. The publication of these and similar cases in scientific journals will go far towards promoting the rapid growth of forensic skill amongst the members of the profession.



### AN OBSCURE FEVER OUTBREAK.

SOME outbreaks of continued fever which occurred in the Thornbury Rural Sanitary District were considered by Dr. Francis Bond (Medical Officer of Health for the Gloucestershire Combined Sanitary District) to be so important and interesting, both on account of the circumstances under which they occurred and the obscurity attaching to their precise origin, that in his annual report for the year 1882 he gives a history of them. The sufferers were, for the most part, men employed in the construction of the Severn Tunnel works, residing in the neighbourhood of New Passage; the first evidence of the fever presenting itself in the form of a few sporadic cases amongst workmen who had returned home ill. At that time the only water available for drinking at the works was that laid on from the neighbouring *rhine*, and many of the men had to walk some miles to and from their daily labour. Subsequently the contractor had water daily carried to the works for drinking purposes from an adjacent spring, and he also erected wooden huts in the neighbourhood of New Passage for the accommodation of the men. From October to December of 1882 some twenty cases of fever occurred in the Thornbury District, principally in these wooden huts. With reference to the origin of the outbreaks, Dr. Bond is by no means satisfied that all the cases were genuine cases of enteric fever; in many of them he suspected that there was a certain amount of initial pulmonary complication, which made their real pathology rather obscure. Again, he was not able to connect them, as a whole, with any single intelligible cause. It was not possible to attribute them to any common source of contaminated water; whilst milk had even less to do with the illness. It was not attributable in the larger number of cases to any structural defects in drainage or closet accommodation, though Dr. Bond had little doubt that some of the cases which occurred in the huts originated in this way; nor was it produced in all cases by overcrowding, though this agency, he says, in all probability exercised a potent influence in the dissemination of the infection. As a fact, there was no single condition common to all, or even to the majority of the cases, except the circumstance that the men were employed at the tunnel works, and even in this respect the conditions of their employment were by no means identical, as some worked in the tunnel, and others *above* ground. It is the more remarkable, Dr. Bond observes, that these outbreaks of fever occurred only, so far as he was able to learn, at the New Passage end of the tunnel, the cases of fever at the Portskewett end having been very few in number.

### TUBERCLE AND ITS RESISTANCE TO ANTISEPTICS.

IN a previous number of this journal (vol. ii. 1882, page 669), a brief notice will be found of a paper which appeared in the *Revue de Médecine*, by M. H. Martin, demonstrating the extraordinary power of resistance enjoyed by the tuberculous virus against high temperatures and the effects of alcohol. In the October number of the same periodical there is a further communication from the same author, in conjunction with his deceased teacher, M. Parrot, detailing the results of experiments with salicylic acid, sulphate of quinine, corrosive sublimate, carbolic acid, creasote, bromine solution, and oxygenated water. The plan adopted was to take a portion of the tuberculous viscera of an animal that had just died of tuberculosis, and place it in the solution to be tried. After it had been left a varying length of time in such solution, inoculation-experiments in fresh animals were made, to see if it would induce tuberculosis. The solutions used varied in strength from one in 5000 to one in

500, and it may be said that none of the above reagents succeeded in destroying the infective property of the tuberculous material with anything approaching constancy. The authors conclude their paper with the following practical remarks:—"It is thus clearly proved that the vitality of the tuberculous virus is considerable. In therapeutic doses the antiseptic agents actually in use are powerless to destroy it, and the daily failures in practice seem, so to speak, borne out by what has already been shown. Again, it is perfectly clear from our experiments that the antiseptics in daily use are powerless against it. We wash instruments in alcohol or in a solution of carbolic acid (1 or, at most, 2 per cent.); we moisten the walls or the floors of our hospitals with the same solution; and are quite willing to believe that, in consequence of this, all germs, including those of tuberculosis, are rendered inert. It is easy to understand that such an illusion may bring about grave consequences. Even the sulphurous vapours advised by M. Vallin, even the vapour of bromine, which is still more caustic, can only act when tolerably concentrated and after some length of time, and in this case their employment becomes dangerous and difficult. The only agent which germs, be they what they may, cannot resist for a single moment is *fire*. Now, we know that at 100° the tubercle loses its infectious property in a very little while; and a temperature, even dry, of 120° to 125° destroys this power almost instantly. We must conclude that a heated stove is the only certain and practical purifier of instruments for surgical or experimental operations, for clothing, linen, and dressings; in short, for all objects whose shape and size admit of their being introduced into it. As regards the walls, floors, etc., of private rooms or hospital wards, it would be possible, it seems to us, from time to time to submit them to the action of a current of air heated to about 125°, which, being brought by means of suitable portable tubes, and distributed just as one directs a jet of water from a pump, would dry and calcine the infectious germs hanging about the plaster, pictures, or woodwork, without sensibly damaging them." Such are the precautionary hygienic measures the authors recommend for adoption against the contagion of tuberculosis.

### BOLTON AND THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

THE annual reports of Mr. Edward Sergeant, Medical Officer of Health for the borough of Bolton, have for the past few years possessed additional interest, since there was a general desire to ascertain whether the arrangement for the compulsory notification of infectious diseases was likely to prove as successful as its promoters prognosticated. So far as the town of Bolton is concerned, the success achieved would appear to have been satisfactory; Mr. Sergeant, commenting on the subject in his review for the year 1882—the fifth complete year, by the way, since the system of notification of infectious disease came into operation in Bolton,—gives the number of infectious cases reported during that period as 655. The cases reported were more numerous than during the preceding year, but the excess is admitted to be chiefly due to the unusual prevalence of small-pox in the locality. The proportion of deaths from the infectious diseases for which reports were received was equal to 11.14 per cent. of the total cases, against 13 per cent. for the year 1881. The advantage of notification, Mr. Sergeant says, was exemplified during the recent epidemic of small-pox in Bolton; since, although the sanitary authorities were unable to stop the spread of the disease at the commencement of the outbreak, the prompt notification of the cases as they occurred enabled them, by



means of isolation and other precautionary measures, to limit as much as possible the extension of the disease; whilst at any time the exact condition of the town with regard to small-pox could be accurately gauged. The system of notification of infectious diseases, which was first granted to Bolton in 1877, has continued, Mr. Sergeant claims, to find favour in the eyes of the public, since at the present time there are no fewer than thirty-one cities and towns in Great Britain possessed of legal power for insuring compulsory notification. But, with all due respect for Mr. Sergeant's opinions, we feel bound to remark that the success of the system depends in a much greater degree upon the profession than upon the public, and if its promoters had been content to throw the responsibility of notification upon the householder instead of upon the medical attendant, it would long before this have been made compulsory for the whole of the kingdom.

#### CAUSE AND MECHANISM OF FLAT-FOOT.

DR. HERMANN VON MEYER, Professor of Anatomy in Zürich, after a careful examination of the normal and of the flat foot, anatomical as well as clinical, comes to the following conclusions, which, as will be seen, are somewhat at variance with the generally accepted views:—Flat-foot does not depend on destruction of the arch of the foot, but on a valgus position of the foot, and chiefly of the os calcis, with regard to the astragalus, together with, as a complemental and secondary condition, version upwards and outwards of the fore part of the foot. The deformity is not due to relaxation of the plantar ligaments, but depends rather on exaggerated rotation inwards of the astragalus, and on subsequent changes in the conditions of the plantar bones due to the atrophy resulting from mutual pressure. The present brochure ("Studien über den Mechanismus des Fusses," part i., published at Jena) is the first of three in which the normal and pathological conditions of the foot are to be discussed. We shall look forward to the others with some interest; the second will deal with the normal mechanism of the foot, and the last will complete the subject by discussing the various forms of club-foot.

#### CHLORAL-PSYCHOSIS.

THE evil results of the excessive use of chloral, whether brought into prominent relief by the occurrence of a sudden catastrophe, or less clearly indicated by the production of skin eruptions, chronic dyspepsia, etc., are sufficiently well recognised by professional, if not by lay, consumers of the drug. Cases of chronic poisoning by hydrate of chloral are not, however, recorded in any great number, and the following instance, reported by Prof. Kirn (*Berliner Klinische Wochenschrift*, No. 47, 1883), forms an interesting addition to the series. A man, aged thirty-five, with a strongly marked neurotic family history, himself of very excitable temperament, suffered severely from asthmatic attacks for three years, during which period he had been in the habit of taking hydrate of chloral with morphia at intervals. With the increase of his asthmatic troubles he increased his dose, until, from a chronic state of chloral stupor, he began to show symptoms of chronic intoxication—loss of appetite, diarrhoea, wasting, strangury, pains in back and limbs, sleeplessness, complete demoralisation, and excitement. Being removed to hospital to insure isolation, the use of chloral hydrate was stopped, the patient being only allowed a small subcutaneous injection of morphia. In a short time lively hallucinations set in, but hallucinations of hearing only. Voices were constantly heard uttering frightful threats and giving orders for the torture and punishment of the victim. These voices, however, were only

heard by day; notwithstanding his complete sleeplessness and excitement, the patient was free from the hallucinations by night. For about a month the symptoms of intoxication and the psychic disturbance showed but little improvement, but after that period all the indications began to be less marked. Strangury, however, persisted, but without polyuria. The urine was found to be free from albumen and sugar. At intervals the hallucinations returned, but lasted only for short periods. After two months all the symptoms were relieved; but with the improvement in general health the attacks of asthma, which had been absent during the period of intoxication, recurred as severely as before. The history of the case bears a strong resemblance to that of the more familiar cases of chronic alcoholic intoxication. Prof. Kirn regards the chronic impairment of nutrition of the cerebrum, due to the constant vaso-paresis induced by the chloral, as the most probable explanation of the physiological condition present in such cases. The slow recovery after complete withdrawal of the drug corresponds to the gradual restitution to the normal of the altered brain-substance.

#### RETROGRADE DIVULSION OF THE ŒSOPHAGUS AND PYLORUS.

UNDER this title is furnished, in the *Gazzetta Med. Lombardica* of November 24, a short account of a new operation executed on October 24 by Prof. Loreta at the Surgical Clinic of Bologna. The case was one of stricture of the œsophagus at its lower third, produced by swallowing caustic potash. No history of the case is given at present, but it is stated that the patient was so reduced by inability to swallow food that surgical interference had become urgently needful. The seat, nature, and degree of the contraction rendered all operative proceedings by the mouth out of the question, and Prof. Loreta resolved to attack the stenosis from the stomach, in order to obtain sufficient space for the introduction of the dilating instrument and its passage through the cardiac orifice into the œsophagus. Gastrostomy was accordingly performed. The operation, although difficult, did not occupy more than half an hour, and its efficacy was proved by the fact that the patient was able to swallow food with ease on the first day. The wound healed by the first intention, no peritonitis occurred, and the patient was regarded as cured by the fourteenth day—a bougie being ordered to be introduced periodically, in order to maintain the dilatation. It is also stated that Dr. Loreta has performed another similar operation with like success.

A SO-CALLED epidemic of chorea is said to have broken out in a girls' school at Moscow, and to have manifested itself simultaneously in eighteen different houses in which the schoolgirls reside.

AT the election of Assessor to the Council of St. Andrews University, Sir Richard Cross received 727 votes, against 341 cast for Dr. Richardson. The total available votes numbered 1562, and 1095 voted.

IT has been decided to devote part of the Montefiore Commemoration Fund to the establishment and endowment of a convalescent home at Ramsgate, open to patients, irrespective of creed, on the recommendation of the governing bodies of hospitals.

IN consequence of the increase of small-pox in the Clapton district of the Hackney Union, the guardians have requested the vaccination officers to make a house-to-house visitation in that district with the view of impressing on the inhabitants the expediency of vaccination or revaccination.



A STAINED glass window to the memory of Dr. Robert Druitt is about to be fixed in the Minster of Wimborne, in the diocese of Salisbury.

WE are requested to state that the absence of the name of the President of the Royal College of Surgeons from the Committee appointed to carry out the measures deemed fit in regard to the case of Messrs. Bower and Keates is due entirely to his not having been made aware of the intention to hold a meeting upon the subject. Hence he, as President of the College, has been unable to add the sanction of his authority to a movement which has his entire sympathy and approval.

## DIARY OF THE YEAR.

JANUARY 8.—Dr. Sansom's First Lettsomian Lecture on Valvular Diseases of the Heart.

11.—Annual Meeting of British Medical Benevolent Fund.

12.—Annual Meeting of the Clinical Society. Dr. Andrew Clark elected President.

13.—President's Reception on Reopening of the Museum of the Royal College of Surgeons.

14.—Death of Mr. Walter Ottley, M.B., F.R.C.S., æt. 33.

17.—Meeting of the Metropolitan Counties Branch of the British Medical Association. Addresses on the Collective Investigation of Disease by Sir William Gull and Sir James Paget.

18.—Harveian Society's *Conversazione*.

Verdict of Coroner's Inquest on the Death of Dr. Edwardes, of Hounslow.

26.—Dr. Andrew Clark's Address to the Clinical Society.

29.—Discussion at the Medical Society on Tuberculosis and Bacilli.

FEBRUARY 1.—Presentation to the Association for the Advancement of Medicine by Research of Mr. Watson Cheyne's Report on "The Relation of Micro-Organisms to Tuberculosis."

2.—Prof. Parker's First Lecture at the Royal College of Surgeons on "The Metamorphosis of Suctorial Fishes and Batrachia."

5.—Presentation of Prizes at Netley Hospital by Sir Ralph Thompson.

7.—Annual meeting of Obstetrical Society. Address by Dr. Matthews Duncan. Dr. Gervis elected President.

11.—Death of Mr. Watkin Williams, F.R.C.S., of Birmingham, æt. 67.

12.—Resumed Discussion at the Medical Society on Tuberculosis and Bacilli.

14.—Hunterian Oration at the Royal College of Surgeons by Mr. Spencer Wells.

15.—Dr. Andrew Clark's Address on "Renal Inadequacy."

16.—Dr. Matthews Duncan's First Gulstonian Lecture on "Sterility in Woman."

27.—Discussion at the Royal Medical and Chirurgical Society on Scurvy in Arctic Expeditions.

Mr. Flower's First Lecture at the Royal College of Surgeons on "The Anatomy of the Horse and its Allies."

28.—Dr. J. E. Pollock's First Croonian Lecture on "Modern Theories and Treatment of Phthisis."

MARCH 1.—Annual Meeting of the Royal Medical and Chirurgical Society. Mr. Marshall re-elected President.

5.—General Meeting of the Medical Society. Sir J. Fayrer elected President.

7.—Dr. Gervis's Address to Obstetrical Society.

8.—Medical Act Amendment Bill introduced in the House of Lords by Lord Carlingford.

9.—Dr. A. B. Garrod's First Lumleian Lecture on "Uric Acid in its Relation to Renal Calculi and Gravel."

12.—Extraordinary Meeting of Royal College of Physicians. Adoption of Report of Committee on Conjoint Examinations.

19.—Meeting at Royal College of Physicians. Re-election of Sir W. Jenner as President.

20.—Death of Prof. Lasègue, of Paris, æt. 66.

Supplementary Charter signed, enabling the Victoria University, Manchester, to grant Degrees in Medicine and Surgery.

24.—Death of Mr. Paul Swain, F.R.C.S., J.P., æt. 74.

28.—Public Meeting at Edinburgh for the Extension of the Buildings of the University.

APRIL 3.—Debate on Diabetes at the Pathological Society.

The Council of the College of Surgeons resolved to Petition the House of Lords against the Medical Act Amendment Bill.

Opening Lecture at the Royal Institution of Dr. McKendrick's Course on "Physiological Discovery."

4.—Mr. Lyon Playfair's Speech in House of Commons against the Second Reading of the Bill for the Total Abolition of Vivisection. Debate adjourned.

5.—Second Reading of Medical Act Amendment Bill in House of Lords: Speeches of Lords Carlingford, Aberdeen, Milltown, Cairns, Cranbrook, Balfour of Burley, and Camperdown.

10.—Death of Dr. Palfrey, æt. 45.

Presentation of Portrait to Mr. Ernest Hart.

12.—Meeting of Royal College of Physicians. Report of Committee on Medical Act Amendment Bill.

Complimentary Dinner to Dr. Wendell Holmes at New York.

Jacksonian Prize of Royal College of Surgeons awarded to Mr. A. A. Bowlby for his Essay on "Injuries of Nerves."

14.—Death of Dr. W. Farr, C.B., æt. 75.

17.—The Metropolitan Counties Branch of the British Medical Association resolved to petition against the Bill for the Compulsory Notification of Infectious Diseases.

18.—Sir James Paget elected Vice-Chancellor of the London University, *vice* Sir G. Jessel, deceased.

19.—The Medical Act Amendment Bill passed through Committee in the House of Lords.

Meeting of General Medical Council.

Death of Surgeon-General Holloway, Principal Medical Officer at Netley Hospital, æt. 57.

20.—Resolution passed in House of Commons (by 182 votes to 100) disapproving of Compulsory Examination of Women under Contagious Diseases Acts.

21.—Dr. Matthews Duncan took his seat on the General Medical Council in succession to Sir W. Gull.

26.—Report of Amendments to the Medical Act Amendment Bill agreed to by the House of Lords.

Discussion in the General Medical Council on the Amended Medical Bill.

Election of Fellows by the Royal College of Physicians, and Resolution to institute an Examination in Hygiene.

27.—Third Reading of Medical Act Amendment Bill in the House of Lords.

29.—Death of Mr. B. W. Richardson, of Dublin.

MAY 1.—Resumed Discussion on Diabetes at the Pathological Society.

2.—First Reading of the Medical Act Amendment Bill in the House of Commons.

10.—The Council of the Royal College of Surgeons passed a Resolution approving the Medical Bill as amended.

15.—Death of Dr. Robert Druitt, æt. 68.

19.—Publication of the Report of Lord Morley's Committee on the Army Medical Department.

22.—Royal Medical and Chirurgical Society: Communications on Renal Surgery.

26.—Reopening of the Parkes Museum by H.R.H. the Duke of Albany.

30.—Mr. Henry Power's First Lecture at the Royal College of Surgeons on the "Lacrimal Apparatus and Accessory Organs of the Eye."

JUNE 1.—Dr. De Chaumont's Inaugural Address at the Parkes Museum.

2.—Mr. Wheeler elected President of the Royal College of Surgeons of Ireland.

6.—Mr. Frederic Eve's First Lecture at the Royal College of Surgeons on "Cysts."

7.—Ophthalmological Society: Discussion on Eye Symptoms in Spinal Disease.

8.—Resolution in the House of Commons to refer the Grievances of Militia Surgeons to a Committee lost by 61 votes to 48.

10.—Hospital Sunday: £33,935 collected.

13.—Mr. Jonathan Hutchinson's First Lecture at the Royal College of Surgeons "On certain Diseases of the Tongue."



- 13.—Death of Mr. Benjamin Bell, of Edinburgh, æt. 73.  
 19.—Discussion on Vaccination in the House of Commons—Compulsory Vaccination upheld by majority of 286 to 16.  
 20.—President's *Conversazione* at the Royal College of Surgeons.  
 23.—Outbreak of Cholera at Damietta.  
 Distribution of Prizes at St. Thomas's Hospital by H.R.H. the Duke of Connaught.  
 27.—Mr. Hastings moved the Second Reading of his Bill for the Compulsory Notification of Infectious Diseases.  
 Dr. Habershon gave the Harveian Oration at the Royal College of Physicians.  
 JULY 2.—*Conversazione* at the Medical Society, attended by H.R.H. the Prince of Wales.  
 4.—*Conversazione* at the Royal College of Physicians.  
 5.—Messrs. Cooper Forster and Sydney Jones and Sir W. Mae Cormac elected on the Council of the Royal College of Surgeons.  
 Distribution of Prizes at Charing-cross Hospital by Lord Wolseley.  
 6.—Annual Meeting of the Ophthalmological Society. Mr. Jonathan Hutchinson elected President.  
 7.—Outbreak of Enteric Fever in St. Pancras.  
 10.—Chelsea Hospital for Women opened by H.R.H. the Duchess of Albany.  
 11.—Annual Meeting of Metropolitan Counties Branch of British Medical Association. Dr. Hare's Address on "Good Remedies out of Fashion."  
 12.—Mr. John Marshall elected President of the Royal College of Surgeons.  
 Anniversary Meeting of Sanitary Institute.  
 16.—Appearance of Cholera at Cairo.  
 17.—Death of Dr. A. P. Stewart, æt. 70.  
 20.—Discussion in the House of Lords on Lord Morley's Report.  
 Departure of Surgeon-General Hunter for Egypt.  
 25.—Departure of English Medical Men for Egypt.  
 27.—Annual Meeting of Medico-Psychological Association: Address by the President, Dr. Orange.  
 31.—Fifty-first Annual Meeting of the British Medical Association at Liverpool: First General Meeting; Dr. W. Strange's Presidential Address.  
 AUGUST 1.—British Medical Association: Second General Meeting; Address in Surgery by Mr. Reginald Harrison.  
 Annual Meeting of Association of Fellows of the Royal College of Surgeons of England.  
 2.—British Medical Association: Third General Meeting; Public Dinner.  
 3.—British Medical Association: Fourth General Meeting; Address in Pathology by Dr. Creighton.  
 5.—Death of Prof. Parrot, of Paris, æt. 54.  
 6.—Distribution of Prizes at Netley Hospital by Sir Galbraith Logan.  
 14.—Fatal Fire at Southall Park Lunatic Asylum: Death of Dr. Robert Boyd, æt. 70.  
 15.—Arrival of the Pasteur Mission at Alexandria.  
 16.—Departure of Dr. Koch's Mission from Berlin, to inquire into the Outbreak of Cholera in Egypt.  
 18.—Dr. Wickham Legg's Bradshawe Lecture on "Cardiac Aneurysms" at the Royal College of Physicians.  
 Withdrawal of the Superior and Sisters from St. John's House.  
 22.—Withdrawal by the Government of the Medical Act Amendment Bill.  
 SEPTEMBER 1.—Gradual Subsidence of Cholera in Lower Egypt.  
 6.—Opening of the Intercolonial Medical Congress at Amsterdam.  
 8.—Hospital Saturday.  
 18.—Meeting of British Association at Southport.  
 20.—Death of Dr. Thuillier from Cholera at Alexandria, æt. 27.  
 24.—Congress of Sanitary Institute at Glasgow: Prof. Humphry's Inaugural Address.  
 25.—Sanitary Congress: Address by Prof. Gairdner.  
 OCTOBER 1.—Introductory Addresses at the London Hospitals.  
 3.—Social Science Congress at Huddersfield.

- 3.—Dr. Michael Foster's Address to Pharmaceutical Students.  
 4.—The Walthamstow Murderer respited.  
 Social Science Congress: Discussion on Educational Overpressure.  
 5.—Social Science Congress: Discussion on the Spread of Disease by Milk.  
 6.—Social Science Congress: Mr. Teale's Presidential Address to the Health Section.  
 8.—Address on Recreation by Sir James Paget at the Working Men's College.  
 9.—Prof. Huxley's Address at the London Hospital on State Intervention in Medical Affairs.  
 Mr. Haffenden arrested at Kensington.  
 11.—Ophthalmological Society: Mr. J. Hutchinson's Address.  
 13.—Publication of Dr. Koch's Report on Cholera in Egypt.  
 18.—Entombment of Harvey's Remains at Hampstead by the Royal College of Physicians.  
 19.—Society of Medical Officers of Health: Dr. Dudfield's Inaugural Address.  
 23.—Dr. Ferrier delivered the Marshall Hall Prize Oration at the Royal Medical and Chirurgical Society.  
 Suicide of Mr. Haffenden.  
 24.—Presentation of Testimonial to Prof. Bentley at King's College.  
 29.—Medical Society: Prof. Lister on "Treatment of Fractured Patella."  
 NOVEMBER 1.—Messrs. Bower and Keates charged at Lambeth Police-court: Charge dismissed.  
 3.—Death of Mr. James Shuter, F.R.C.S.  
 5.—Medical Society: Discussion on Prof. Lister's Treatment of Fractured Patella.  
 7.—Dr. Norman Chevers's Inaugural Address at the Epidemiological Society.  
 8.—Adoption by Royal College of Surgeons of Principle of Non-personal Voting at Election of Members of Council.  
 9.—Clinical Society: Discussion on Treatment of Fractured Patella by Suture.  
 13.—Death of Dr. Marion Sims, æt. 70.  
 18.—Death of Dr. Hilton Fagge.  
 23.—Clinical Society: Discussion on Myxœdema.  
 29.—Presentation of Testimonial to Mr. Jonathan Hutchinson.  
 30.—Royal Society: Prof. Huxley's Presidential Address.

- DECEMBER 5.—Obstetrical Society: Dr. Robert Barnes on "The Mechanism of Labour."  
 Dr. C. S. Roy, Professor at the Brown Institution, gave his First Lecture on "Inoculation for the purpose of preventing Zymotic Disease."  
 6.—Prof. Marshall's Bradshawe Lecture "On Nerve-Stretching" at the Royal College of Surgeons.  
 8.—Opening of the Princess Alice Memorial Hospital at Darmstadt.  
 10.—Meeting at Sir W. Jenner's to consider the Case of Messrs. Bower and Keates.  
 11.—Conference at Mansion House on the Dwellings of the London Poor.  
 12.—Conference of Poor-Law Guardians: Discussion on Outdoor Medical Relief.  
 14.—Charge against the late Mr. Haffenden tried at the Central Criminal Court: Verdict of Acquittal.  
 17.—Medical Society: Sir Andrew Clark on "Catheter-Life."  
 22.—St. Andrews University: Sir Richard Cross elected Assessor.

### THE BOWER AND KEATES CASE.

In the letter recently addressed to the profession, the name of Prof. John Marshall, F.R.S., President of the Royal College of Surgeons of England, was accidentally omitted from the list of the Committee, of which he is a member. From the number of letters received by the Committee indicating a wish that some steps may be taken to protect the profession from such ill-advised prosecutions in future, it seems desirable to mention that a resolution was passed at the meeting held at Sir William Jenner's residence on December 10, asking the Council of the Royal College of Physicians and the Council of the Royal College of Surgeons



"to consider the propriety of representing to the Secretary of State for the Home Department that it is very desirable that there should be some arrangement by which the Public Prosecutor may obtain the assistance of skilled advisers when he is solicited to institute prosecutions of medical practitioners." It may be added that the Councils of both Colleges have already the matter under their consideration with a view to combined action. The memorial, if signed by the whole profession, will greatly strengthen any representation made to the Government by the two Colleges. It may also be stated, in reply to other letters, that, although the memorial which members are asked to sign refers only to the criminal prosecution for the alleged manslaughter of the child in which the Public Prosecutor was concerned, it is thought by the Committee that the profession will wish to defray the whole legal expenses incurred by Dr. Bower and Mr. Keates in connexion with the matter, and these include the expenses of their defence in the civil action as well as in the criminal one. Any gentlemen who have not received the letter and memorial issued by the Committee are requested to communicate with the honorary secretaries. The appeal was posted on Saturday, December 22, at mid-day; by five o'clock p.m. on the following Monday 208 replies were received at the College of Physicians. A very large number of replies have since been received, but it has been found impossible to acknowledge them in the present issue. The following contributions to the indemnity fund (third list) were received before five o'clock p.m. on Monday, December 24:—

Sir Joseph Lister, Bart., F.R.S.	...	...	£10	10	0
J. Hughlings-Jackson, M.D., F.R.S.	...	...	10	10	0
William Wood, M.D.	...	...	10	10	0
R. Quain, F.R.S.	...	...	10	5	0
J. Blackstone, Esq.	...	...	5	5	0
W. Adams, Esq.	...	...	5	5	0
J. Cooper Forster, F.R.C.S.	...	...	5	5	0
Sydney Ringer, M.D.	...	...	5	5	0
W. C. Begley, M.D.	...	...	5	0	0
W. Cadge, F.R.C.S.	...	...	3	0	0
J. Sidney Turner, Esq.	...	...	3	0	0
Thomas Annandale, F.R.C.S., Edinburgh	...	...	2	2	6

The following have sent two guineas each:—Walter Bryant, M.R.C.P.; W. Allingham, F.R.C.S.; Vincent Ambler, Surg.-Maj.; C. A. Aikin, F.R.C.S.; W. Bruce Clarke, M.D.; Sir Oscar Clayton, F.R.C.S.; G. Anderson Critchett, F.R.C.S.; John Easton, M.D.; Berkeley Hill, M.B., F.R.C.S.; Samuel Gee, M.D.; F. W. Jowers, Esq.; Robert Liveing, M.D.; Stephen Mackenzie, M.D.; E. Nash, M.D.; W. M. Ord, M.D.; R. J. Spitta, M.D.; Sigismund Sutro, M.D.; J. Thornton, Esq.; H. M. Tuckwell, M.D.

William Fuller, Esq., £2.

The following have sent one guinea each:—Edward Ablett, M.D., Whitehaven; C. H. Allfrey, M.D., St. Mary Cray; Julius Althaus, M.D.; J. A. Ball, M.B., Stockport; Edgar Barker, Esq.; Lionel W. Beale, F.R.S.; Charles E. Beevor, M.D.; Henry Belcher, Esq., Brighton; T. M. Briggs, Esq.; John Birkett, F.R.C.S.; W. F. Blakes, Esq.; G. Fielding Blandford, M.B.; Byrom Bramwell, M.D., Edinburgh; J. W. Bramwell, M.D., Tyne-mouth; J. Brisbane, M.D.; Augustus Brown, M.D.; H. Langley Browne, F.R.C.S., West Bromwich; Walter Buchanan, Esq., Chatham; Kyrán T. Buggy, Esq., Framlingham; F. C. Bullmore, Esq., Falmouth; Henry T. Butlin, F.R.C.S.; Thomas Buzzard, M.D.; Jabez Carter, Esq., Bedford; A. W. M. Caudle, Esq., Henfield; W. Cock, Esq.; J. A. Cooksey, Esq., Malvern; Sidney Coupland, M.D.; W. H. Crosse, Esq.; Henry Curling, F.R.C.S.; Henry Dayman, F.R.C.S., Southampton; Benjamin Duke, Esq.; Clement Dukes, M.D., Rugby; W. J. Bailey Eadon, Bristol; W. Eddowes, Esq., Shrewsbury; Alex. Forsyth, M.D., Greenwich; Robert Fowler, M.D.; John H. Galton, M.D.; James F. Goodhart, M.D.; Francis Goolden, Esq., Maidenhead; Edward B. Gray, M.D., Oxford; George Fox Grosvenor, M.D.; Fred. B. Hallows, Esq., Redhill; George Harley, M.D.; Robert Harris, M.B.; William Harris, F.R.C.S., Hellesdon; Wilnot Parker Herringham, M.B.; Constantine Holman, M.D., Reigate; George E. Jeaffreson, Esq., Framlingham; George Johnson, M.D.; W. E. Ledgerd, Esq., Kirkby Lonsdale; R. T. Leeming, F.R.C.S., Kendal; W. Liddon, M.B., Taunton; W. Withers Moore, M.D., Brighton; Edward J. Nix, M.D.; George Oliver, M.D., Harrogate; George Rice Ord, M.D.; William B. Page, F.R.C.S., Carlisle; G. E. Paget, M.D., Cambridge; Sidney Parsons, Esq.; C. J. Pinching, Esq., Gravesend; Joseph Francis Porter, M.D.; William Price Jones, M.D., Surbiton; R. Prosser, Esq., Bromsgrove; Smith Richards, Esq.; E. Cuthbert King, Esq.; T. Morley Rooke, Esq., Cheltenham; Mathias Roth, M.D.; James Russell, M.D., Edgbaston, Birmingham; Joseph Harvey Sutcliffe, Esq., Ripley, Surrey; Felix Semon, M.D.; Malim Sharman, Esq., Birmingham; Thomas Sheldon, M.D.; Ernest Barrett Smith, M.B., Twickenham; William H. Spencer, M.D., Bristol; Henry Stilwell, M.D., Hillingdon; Horatio P. Symonds, F.R.C.S., Oxford; James Taylor, F.R.C.S., Chester; Thomas Taylor, Esq., Braintree, Essex; T. Pridgin Teale, F.R.C.S., Leeds; Frederic Thorne, Esq., Leamington; John Topham, M.D.; J. J. Tweed, F.R.C.S.; John Underwood, M.D., Hastings; A. Law Wade, M.D., Wells; Thomas James Walker, M.D., Peterborough; Hermann Weber, M.D.; Walter Whitehead, F.R.S., Manchester; G. Friend Whiteley, Esq., J.P., Twickenham; Pugin Thornton, Esq.; George May, Esq., Reading; Handfield Jones, M.B.; Battershell Gill, M.D.; Abernethy Kingdon, Esq.

W. Corbin Finch, M.D., Salisbury, £1.

The following have sent half a guinea each:—W. H. Barr, Esq., Bury; John Beddoe, M.D., Bristol; Cornelius Biddle, Esq., Merthyr Tydfil; C. H. Bloxsome, Esq., Fairford; Henry J. Buck, Esq.; James Cornwall, F.R.C.S., Fairford; John Gill, Esq., Welshpool; Joseph Harper, Esq., Barnstaple; Henry Jackson, Esq., Barnstaple; Albert Kisch, Esq.; J.

Mulvaney, Esq.; Geo. Robinson, Esq., Bedford; F. W. Salzmänn, Esq., Brighton; F. H. Spooner, M.D.; E. Symes Thompson, M.D.; J. N. Winter, Esq., Brighton; James A. Rigby, M.D., Preston; Charles Rigby, M.B., Preston; John H. Wraith, Esq., Darwen; Otho F. Wyer, M.D., Leamington.

The following have sent ten shillings each:—E. Adams, Esq., Liverpool; James Adams, M.D., Barnes; J. M. Appleton, Esq.; Robert Bruce, Esq.; O. E. P. Chard, M.B.; Edwd. D. Doughty, Esq.; D. Duke, Esq., Leicester; R. C. D. Durden, Esq., Leicester; R. S. Fowler, F.R.C.S., Bath; B. Lawrence Hawkins, Esq., Woburn; W. B. Hunter, M.D., Matlock; Talfourd Jones, M.B., Brecon; W. Y. Veitch, Esq., Middlesbrough; Leonard Williams, M.B., Wheatley; W. J. Qualtrough, Esq.

The following have sent five shillings each:—H. M. Baker, M.B., Leicester Asylum; R. W. F. Carter, Esq., Dulverton; J. Christian, Esq., Dulverton; F. W. Clarke, Esq., Bury St. Edmunds; W. Soltan Eccles, Esq.; W. Moorman, Esq., St. Columb; Edmund Palmer, M.B., Thanet; D. W. Parsons, Esq., Liverpool; Frank Smith, Esq., Plumstead; E. A. Snell, M.B.; Edward T. Tibbits, M.D., Bradford.

Other smaller sums:—Thomas Warner, Esq., Cirencester, 4s. 2d.; A. Haslewood, Esq., Buxton, 2s. 6d.; T. Law Webb, Esq., Ironbridge, 2s. 6d.; A. Kebbell, Esq., Flaxton, 2s.; H. T. Wharton, M.A., 1s. 6d.; from a Poor Man, 1s. 4d.

*Errata.*—In last week's list for Dr. Garskill read "Gaitskell"; for Dr. Heywood read "Heyward."

F. A. MAHOMED, }  
R. W. BURNET, } Hon. Secs.

Royal College of Physicians, Pall-mall East, S.W.

## SPECIALISM—A DISCUSSION.

THERE is probably no subject more often discussed in medical circles than that of Specialism, and there is certainly none which is more thorny or more difficult. It may be looked upon from so many different points of view, and one's opinions on it are so apt to be insensibly bound up with one's interests, that the most opposite standpoints may no doubt be honestly held. The public at large is certainly in favour of immoderate specialism: the profession at large, with equal certainty, is opposed to it: and the problem is far from settlement either on the one side or on the other; though we hear from the one camp that specialism is in full retreat, and from the other that it has won all along the line, and the campaign is at an end. It is very important to realise whether there is a real and radical difference of opinion on the subject, or whether the two sides are not in effect only looking at different surfaces of the same shield.

The general practitioner, and those amongst the consultants who sympathise with his view, will tell you that the very term Specialism is comparatively new, and that the immense variety of mental bent and occupation which it may now denote is altogether without parallel in the past history of our profession. In time past, not to go back by any means to the dark or early ages of our history, the consulting or hospital physician or surgeon was the only further or higher authority than the general or family practitioner. Other resort there was none. A great operator for a *surgical* emergency, or a consulting physician for a grave *medical* dilemma—these were the safeguards and luxuries of the rich; and the exceptional occasion which called for this resort was such that the prestige of both consultant and practitioner was enhanced by the gravity and rarity of the crisis so contended with. Then came a period when the eye, the ear, and perhaps some special surgical procedure, had each its chief and chosen votary. But now Specialism has so increased and developed that nearly every disease, medical, surgical, or gynaecological—every condition, organ, or function of the body—has its coterie of special professors, who influence and attract the public mind more and more, impressing the belief that each subdivision of our art, so created, should be the sole and exclusive study of a special and master intellect.

It is hopeless to expect that ordinary medical men, be they as little jealous and self-seeking as they may, will look with complacency upon this state of things. "What," they ask, "is the effect upon us the mass of the profession, upon us the general practitioners in town and country, of this exaggerated specialism among the upper, or consulting, members of our body? How does it affect our own work and status, and the opinions of our patients? Why, we say without hesitation, that the effect is opposed both to our interests and our self-respect. Every disease and organ has its special exponent. Each patient who can afford the luxury becomes anxious to corroborate the opinion of his ordinary medical attendant by the dictum of the specialist. A spirit of restlessness and impatience takes the place



of the loyal dependence upon the trusted adviser. 'It is impossible,' says the specialist, 'that one man can have every branch of medical and surgical science at his fingers' ends.' And the patients are too prone to believe him; and the consultation which was once, when sought in case of doubt or danger, the strength and comfort of the practitioner, becomes a source of anxiety and annoyance when obtained (often without his desire or co-operation) by the timid and credulous patient. 'A. is the best man for this organ,' or 'B. the great opinion for that complaint,' says the world of sympathising friends. And to A. or to B. accordingly the patient will go, though his own medical adviser, who deserves the full trust and confidence of the invalid, feels himself in no doubt, and well able to cope with the disease in question."

That is what the general practitioners are saying, and they have every excuse for taking that line. But is not their view based, perhaps unconsciously, upon their own feelings and interests, rather than upon that deep sympathy for the crying needs of their patients, upon the necessity of which Dr. Allbutt has of late so eloquently insisted? If the general practitioner had the misfortune to be seized with a special complaint, would he not be the first to fly to the specialist for relief? It is to his interest, as well as to that of his patients, that he should carefully weigh the arguments of the other side before illness in his own person converts him to them. "Specialism," he will hear, "is nothing new, nothing strange or foreign. The very existence of medicine as a separate profession is itself a specialism. To the general public, immersed in multifarious occupations, the medical practitioner is a specialist who has devoted himself to the science and art of healing. To the general practitioner the pure physician, the pure surgeon, the obstetrician, and the alienist are specialists in their respective departments. What rule of reason or ethics demands that the process of division should stop at this point? On the contrary, is it not manifest that the process must and ought to continue? The days of the cyclopædists are over. Nevermore can one man say, 'I take all knowledge to my province.' As with the whole of medicine, so with each great branch of it, and afterwards with minor and secondary branches, the time at length arrives when the accumulation of knowledge and the varieties of skill demanded for its practice are greater than can be acquired by any single man. When this time arrives what is to be done? If every man is to distribute over the whole of medical science and art that time and attention which are only sufficient to thoroughly master one branch of it, it is manifest that the profession will sink to a dead level of mediocrity. If, on the other hand, a man works at one branch until he has mastered it, and finds that his whole energies are required in order to retain his proficiency and advance his knowledge in that one subject,—and if he does devote himself to it accordingly,—then he is a specialist."

"The specialisation of the functions of the social organism, like the specialisation of the functions of the individual organism, must be pushed further as the organism becomes more highly developed—as it increases in size and complexity. The same natural law which necessitates that in a savage community one man shall be a hunter, another a fisher, and a third a maker of weapons, necessitates that in a civilised community some medical men shall turn their hands to the section of tendons, others shall study diseases of the brain, and yet others perfect themselves in the performance of ovariectomy. Those who have studied the principles of physiology should be the first to admit that as every man is born with physical features in which he differs from his fellows, so he is born with special qualities and aptitudes in which no two men are alike. These qualities and aptitudes will fit him to do certain things better than he does others; and since good work is more remunerative than bad work, he will do most what he does best; and since qualities are developed and perfected by exercise, that in which he excels he will tend more and more to excel in; and since the more he excels in one kind of work the more remunerative it becomes, he will tend more and more to confine himself to it. The justification of specialism is deep down in the foundation of human nature, and they who fight against it have engaged in a hopeless struggle."

"Well, we will admit all that," return the general practitioners, "but how is the division of labour to con-

tinue? Surely it cannot be right that there should be practitioners confining their attention to diseases of the thumb-nail?" "We answer you in Lord Melbourne's words," reply the other side; "Let the thing alone. It will go on whether you meddle with it or no, and its limitation, like its progress, is subject to natural laws, and will yield to them only. The aim of a man who takes up a specialty is to make a living, or a reputation, or both. If the specialty be too narrow he will find himself unable to live by it, and he must widen it or starve. If he is independent, but takes too narrow a specialty, he will never attain influence, and his example will not be followed."

"But is there no danger of specialism becoming narrowness?" "Of course; any function may become morbid, but we do not seek on that account to abolish the function. We try to maintain it in health; and this is the right course to pursue with a special social function as with a special bodily function. Specialism is one thing, narrowness another. Specialism is a thirsty plant, and must throw out roots far and wide into neighbouring tracts of knowledge, or it will droop and die. Take, for instance, the gynaecologist who confines himself mainly to the subject of ovarian tumours—a somewhat limited specialty—a branch of a branch of general medicine. He must know, of course, all that is known of ovarian tumours. He must know all their varieties, and the natural history of each variety. He must know where each kind begins, when, and how, in what direction, and with what speed it tends to grow; its physical characters, its microscopic structure, its modes of degeneration—in short, its whole biology. Then he must know the physical relations of each variety of tumour to surrounding structures—which structures it displaces, which it destroys, which it incorporates. He must know how each such tumour will affect the structures and the functions of the other pelvic organs with which he has to deal. And when he has learnt all this his acquirements have but begun. He must now study the life-history and all the corresponding particulars of every possible tumour that can grow in surrounding organs, together with all their concomitants and results, so as to be able to effect a diagnosis. Thus the whole of gynaecology and a large province of general splanchnology becomes incorporated with his specialty. But his knowledge is yet far from sufficient. He must be acquainted with the special reactions that each disease of each of these organs has upon the general condition of the body at large; and unless his special knowledge has a broad foundation on general pathology it is not merely incomplete and useless—it is, or may very easily be, positively noxious. Pathology cannot, of course, be known without a previous knowledge of physiology, which, again, necessitates sound anatomical and histological knowledge. The requirements of our specialist are not yet all enumerated. He must be a surgeon as well as a physician. He must be prepared to undertake the greatest operation known to modern surgery; and thus the whole theory of the healing of wounds, with all its ramifications, becomes an essential and intimate portion of his intellectual furniture, and the manual dexterity and microscopic vigilance of the operating surgeon are added to the accomplishments that are required of him. A department of medicine in itself so large, and resting upon so extensive a foundation as this, is certainly not open to the reproach of narrowness; and the only condition requisite to preserve it from any stain of this character is one whose absence would degrade any calling, special or general, and that is—honesty of purpose."

"Ah, if that is specialism," exclaims the general practitioner, "I have nothing further to say. We are agreed after all; but, as so often happens in the warmest discussions, we have been thinking and talking, all along, each with a different connotation of the term in his mind. One question more, however. What about the student? What practical effect will this tendency to subdivision and specialism in medical science have upon him? Surely to him it must be obviously a source of danger." "True; there we shall agree again. Nothing should be more carefully guarded against or more ruthlessly suppressed, by teachers and professors, than any tendency of the student, either in the earlier or later years of his curriculum, to imitate the specialism which he sees prevailing among his leaders and seniors. We would by no means encourage him to devote himself to any special branch of our art or science before he has so occupied him-



self, and formed his mind and judgment by a study of *all* which his course embraces, as to receive the stamp of at least average merit in the complete series of his professional requirements. You may be sure that the very minds which are so easily fascinated by the prospect of a short cut by specialism to early fame and distinction, are those upon which the rigour and routine of an uncompromising course of study, in subjects perhaps less attractive than those naturally chosen, will have the most healthful and lasting effect. You may be sure enough that the spark of special talent, the individuality and originality of mind, if it be present, will shine forth in due course when time and opportunity allow. And with the greater brilliancy will it flash out, from its repression till that due and later time shall have come. For the mind so formed by the study of exact and perhaps uncongenial sciences will be rendered more robust and capable of the pursuit of its own special bent, which must be the ornament, not the essential, the pinnacle, not the foundation, of the true medical training."

## MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

### THE WORK OF THE SOUTH-EASTERN DISTRICT HOSPITAL OF THE METROPOLITAN ASYLUMS BOARD DURING THE YEAR 1882.

THE report of Dr. McCombie, the indefatigable Medical Superintendent of the South-Eastern District Hospital, for the year 1882 has been issued, as usual, as one of the Metropolitan Asylums Board publications. Presumably, want of time has compelled Dr. McCombie to confine himself to a strictly statistical account of the year's doings, and from this we learn that on the small-pox side 947 acute cases of that disease were admitted, 894 were discharged recovered, and 162 died—the mortality being at the rate of 16·2 per cent. Thirty-seven cases of other disease were admitted, of which one died. Ninety convalescents were transferred to Darenth in the beginning of the year, and 98 were received from the Homerton Hospital. Of the admissions, 720 were vaccinated, 83 were doubtfully vaccinated, and 144 were unvaccinated. In patients with good vaccination the mortality was—in males 3·7 per cent., and in females 3·9 per cent.; in patients with imperfect vaccination the mortality was—in males 16·3 per cent., and in females 8·2 per cent. On the fever side of the Hospital there were admitted 365 acute cases. Of these 309 were discharged recovered, or transferred to other hospitals under the Board, and 55 died; the mortality being at the rate of 15·1 per cent. Of these latter admissions 243 were cases of scarlet fever, 84 were cases of enteric fever, 11 were cases of typhus fever, and 27 were cases of other disease. The percentage mortality was—in scarlet fever, 11; in enteric fever, 24·2; in typhus fever, 22·2; and in other diseases, 22·2. Owing to the pressure of small-pox during the year, the fever wards were closed against the admission of fever patients in February, and were not reopened for fever cases until the following August. The health of the staff of the Hospital was generally good throughout the year, both on the fever and small-pox sides; but one nurse and one assistant-nurse—both on duty in the enteric wards—and one laundrymaid contracted enteric fever; two assistant-nurses contracted scarlet fever; and one ward-servant, whose revaccination had been overlooked, contracted small-pox. All these cases, however, happily recovered.

### THE SANITARY CONDITION OF HACKNEY DURING THE YEAR 1882.

THE annual reports of Dr. J. W. Tripe on the sanitary condition of the Hackney district are always interesting, on account of the information they contain; and that for the year 1882 is no exception to the rule. We gather from it that the death-rate for the period was singularly low, having been only 17·9 per 1000, against 21·4 for London generally, and is the smallest recorded by Dr. Tripe since his appointment to the post of medical officer of health. The next lowest, 18·3 per 1000, occurred in 1880. These figures are, the report points

out, the more satisfactory as they happened in the year before and the year after the census of 1881, so that the calculated population could not be far wrong in either year. The number of small-pox cases reported to Dr. Tripe during 1882 was very small as compared with 1881, there having been only seventy-nine in the former, against 1146 in the latter year. Of the seventy-nine cases, fifty occurred in small houses, and twenty-nine in better-class houses—to a great extent amongst servants and other *employés*. The report records the particulars of a severe outbreak of diarrhoea which occurred in November, 1882, at Clapton Common and the upper part of Stamford-hill, the disease attacking the inmates of most of the houses (which are of a good class), between the 3rd and 6th of that month. The outbreak was so sudden and so general that it clearly arose from some sudden cause—either polluted milk or water—or from sewer-gas. The time of the year and the absence of smell from the sewers were against the latter supposition, and it was found that the milk was obtained from various dealers, who received it from totally different sources. As the water was suspected, the East London Company were requested to have the Clapton main scoured out, and this was done in less than twenty-four hours; but several fresh cases occurring the day after the main was scoured, the Company were requested to flush it a second time, which was done, when the outbreak ceased as rapidly as it had begun. The persons attacked were those who drank unboiled water, and several visitors who partook of luncheon at Clapton on November 3, and drank water, were attacked with the disease on their return home; whilst two visitors who drank sherry at luncheon on the same day escaped an attack. Chemical analysis of the water failed to account for the outbreak; and this shows, Dr. Tripe thinks, that too much reliance ought not to be placed on a chemical examination, but that in all cases microscopical examination should also be made.

## ABSTRACTS AND EXTRACTS.

### SUBNITRATE OF BISMUTH AS A PREVENTATIVE OF CICATRICAL CONTRACTION.

DR. A. C. POST extols the external use of this agent employed as a dressing both in cases of recent burns and in remedial operations. When deformity or limited motion is due to the presence of cicatricial bands, he divides the adhesions in the usual manner by multiple parallel adhesions, dressing the parts first with carbolic oil or vaseline, and at subsequent dressings sprinkling them freely with the subnitrate of bismuth, so as to completely fill up all interstices between the incisions. The granulations are thus kept down, and the wounds are maintained in a remarkably healthy condition, with very little suppuration. When used as a dressing to granulating surfaces following burns, it lessens the amount of granulations, the contraction of which, when they are allowed to develop exuberantly, is the chief source of deformity. In neither children nor adults has this dressing been observed to produce any toxic effects.

### THE DEVELOPMENT OF LANGUAGE IN CHILDREN.

IN an article on this subject in the *Archives de Neurologie* for November last, M. Sikorosky concludes that in the infant's first cry—the first manifestation on its part of general sensibility—are contained movements of all parts of the articulating mechanism (the tongue, lips, etc.), whence there gradually arise two categories of the movements of articulation, the one labial, the other lingual, the acquisition of which is almost simultaneous, and which, proportionately to their gradual development, enter into the most varied combinations with the expiratory and vocal movements necessary to form the different sounds of language. In his view there are two types of language in infants, arrived at in different ways. Some children make a minute study of the sounds of a word, and succeed in reproducing with fair accuracy the various component sounds, but cannot combine these into syllables; others, on the contrary, pay most attention to the syllabic structure of the word, and do not trouble themselves about the constituent sounds thereof. To one or other of these classes all the defects of children's speech may be attributed.



## THE KIDNEY DISEASE OF PREGNANCY AND LABOUR.

A RECENT number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an article on this subject by Dr. Fleischlen, of Berlin. He gives first some interesting figures from his own observations, showing the frequency of albuminuria in (a) pregnancy and (b) labour. He examined the urine of (a) 1000 pregnant women, in most cases several times. In 26 he found albumen present. Of these 5 were suffering from cystitis, and 2 from pronounced chronic Bright's disease. Deducting these, there remain 19 in which he considers the albuminuria was due to pregnancy. In 13 of these the urine was again examined after delivery, and it was found that in 3 of them the albuminuria had then disappeared. In 6 others the disease was only slight, the quantity of albumen being small, there being no casts, and symptoms of kidney disease being absent. In most of these the albumen disappeared a few days after delivery. In the remaining 4, eclamptic seizures supervened, and in 3 labour came on prematurely. There was in all more or less oedema of dependent parts; in none general anasarca. The urine was scanty, of high specific gravity (reaching in one case 1045), and containing hyaline and epithelial casts, the latter showing extensive fatty degeneration; but little or no blood or blood-casts. These appearances, in Dr. Fleischlen's opinion, are characteristic of anæmia of the kidneys. Some further cases are given, illustrative of particular points in the subject under consideration. One case exemplifies the rare occurrence of general anasarca without albuminuria, and without eclampsia or other sign of kidney disease. The dropsy subsided eight days after delivery. Another case is given, in which, on autopsy, the part of the right ureter above the pelvic brim, and the pelvis of the corresponding kidney, were found greatly dilated, the condition being attributed by Dr. Fleischlen to compression of the ureter between the brim of the pelvis and the gravid uterus. A case of puerperal eclampsia is also described, in which, contrary to rule, the symptoms and condition of the kidneys were those of ordinary acute nephritis. Our author considers that in the differential diagnosis between chronic interstitial nephritis and renal disease due simply to pregnancy, the chief guide is the condition of the urine. In chronic nephritis the urine is abundant and its specific gravity low; in albuminuria due to pregnancy the secretion is scanty and its density high. In addition to this, there is the cardiac hypertrophy and the pulse of high tension which accompany kidney disease. He finds no evidence that the kidney-changes set up by pregnancy at all tend to pass into chronic interstitial nephritis. (b) Out of the 1000 pregnant women already mentioned, in 537 Dr. Fleischlen examined the urine during labour; of these 395 were primiparæ, 242 multiparæ. In 93 cases (73 primiparæ and 20 multiparæ) he found albumen present in the urine. The greater frequency of albuminuria in first labours he attributes to the greater length of such labours. In order to test the theory that the albuminuria of pregnancy is due to venous congestion of the kidneys from augmented intra-abdominal pressure, and consequent obstruction to the return of blood, our author examined the urine of 28 patients suffering from abdominal tumours, but found albuminuria in only 3 of them, in 2 of which casts were also present. The theory recently advocated by Halbertsma, that it is due to compression of the ureters, Dr. Fleischlen rejects as a general explanation, although he admits its occasional occurrence, as evidenced by the case already described. The final conclusion to which our author comes as to the pathology of the albuminuria of pregnancy, is that it is due to a reflex anæmia of the kidneys excited by the gravid uterus. This anæmia leads to degenerative changes of the epithelium in the renal tubules. In consequence of these changes the excretion of urea becomes deficient. In some cases these changes come on during the latter half of pregnancy, and their evil consequences are then best averted by the induction of premature labour. Sometimes, on the other hand, they are produced by the uterine contractions of the process of labour itself.

## FRACTURE OF THE CERVIX FEMORIS IN THE AGED.

DR. ALLIS, Surgeon to the Jefferson Medical College Hospital, read at the Philadelphia County Medical Society (*Phil. Med. Times*, August 25) a paper entitled, "Some Re-

marks upon the Diagnosis and Treatment of Fracture of the Neck of the Femur in Elderly Subjects." His observations are entirely confined to persons of advanced age—that is, of seventy and upwards. Seeing that in such persons the accident may be accompanied by severe or even fatal shock, the surgeon has to ask himself whether for the purposes of *diagnosis* he should be satisfied with such signs as can be attained without risking an increase of the shock, or whether anæsthetics or manipulation should be employed so as to elicit the distinctive crepitus. One important sign which can be observed without adding to the patient's danger is diminished tension.

"By comparing the limbs, the integument and muscles of the injured thigh will be perceptibly softer than those of its fellow, and if an effort is made to define the great trochanter it will be readily done on the injured side, but not so on the sound side. This symptom—the relaxation of the fascia lata—is of great importance. One of its principal functions is to enable man to stand at rest. From the crest of the ilium to the outer surface of the external tuberosity of the tibia a band of fascia lata passes—the thickest, longest, strongest band of fascia in the body. When the thigh is broken in any part, this fascia is relaxed, and becomes a valuable auxiliary to other symptoms in this injury. The injured limb lies its entire length upon the bed, without producing any arching of the spine.

"Upon these points—age seventy or over (at which time of life there are not, probably, five recorded cases of dislocation of the head of the femur), sudden loss of power in locomotion due to an injury, with pain on the slightest motion, shortening and eversion, with diminished tension and supineness—I would not feel justified in pushing my inquiries further: first, because the only remaining symptom, viz., crepitus, may not be elicited, even on the most unrestricted examination; second, because the absence or inability to elicit crepitus is no proof that the injury is not fracture; third, because, as there is not a single symptom of dislocation present, one is not justified in prejudicing the case by manipulation, either with or without ether. The administration of ether or chloroform at this advanced age is always attended with risk, and to be avoided if possible; while the flexion and extension, the circumduction and rotation, necessary to produce crepitus—all of which must be repeated by everyone professionally connected with the case—is an ordeal even for the robust, and not to be unnecessarily superadded to shock occurring in old age."

With respect to *treatment*, Dr. Allis observes that it must always be remembered that the patient is aged, and will not bear long confinement in one position without bed-sores being produced, which may often cause death when otherwise recovery might have taken place.

"In my treatment of this class of cases I regard but two stages—that of shock and that of convalescence. From first to last I make the *patient* my first care, and regard the fracture as of secondary importance. During shock I keep him recumbent, shifting his position as it affords him relief, and placing pillows or some extempore contrivance about the limb for its support. If care is taken to shift the patient from side to side on the bed, to change bedding and clothing whenever they are wet, no matter how often; if the patient is placed on his right side, his back, and left side, there will be no danger of bed-sores until he has sufficiently recovered from the shock—and this may be in a week or less, according to the strength and condition of the patient. I am in the habit of ordering a movable platform, upon which I can fix securely an easy rocking-chair. This I roll to the bedside, and with very little difficulty my patient is helped to the chair and rolled to a pleasant part of the room while his bed is being made. The first attempts to get him up are attended with pain, but this is in a great measure due to fear and uncertainty of movements. After a few trials the patient will so far help himself as to require little additional assistance. At first he sits up an hour or more; but soon he will spend the entire day in his chair. . . . But it will be urged by some, What excuse have you to offer for thus leaving a fracture of the neck wholly to nature for repair? To this I say, I never abandon my patient as those do who insist upon treating the fracture and magnify its importance. These, I say, do abandon the patient, making his very existence secondary to the accident. But experience shows that the seeming neglect of the fracture is only apparent [some cases are cited by Dr. Allis in which re-



covery was quite satisfactory]. Still the question may arise, Would not these have done better with special treatment? Are they not exceptional cases? I say, No; I do not believe that the results in the treatment of fracture of the neck are brought about by splints, apparatus, inclined chairs, or fancy beds. I believe that they are determined by the character of the fracture the instant that it occurs. I make this statement after examining morbid specimens of recent and remote injuries, a study of which must convince any unprejudiced mind that in some cases nature has no resources that avail the patient. Against the practice that I have advocated it will be stated that daily shiftings in bed, and from bed to chair, will interfere with union, since by such a course the fragments will be disturbed, and efforts at repair frustrated. Even were this conclusion a just one, I would say, Better imperfect repair than a headstone. But it is an assertion, and nothing else, to say that carefully getting the patient up even daily will produce a separation of the fragments."

Convinced as he is of the superiority of the mode of treatment described above, Dr. Allis admits that it has its serious aspect for the practitioner in relation to the law courts, into which ingratitude or discontent on the part of the patient might drag him, where he would be exposed to the charge of unorthodox treatment by able counsel, not infrequently aided, we may add, by the evidence of medical rivals—his judges being an ignorant jury.

**CUVIER'S CRANIUM AND BRAIN.**—In a recent communication to the Société d'Anthropologie, Dr. Georges Hervé quoted some details from a report on the illness and autopsy of Cuvier, which was addressed to the Société de Médecine Pratique by Emmanuel Rousseau, and inserted in the *Lancette Française* for May 26, 1832. According to this report, the weight of the encephalon was found to be 3 lbs. 11 ozs. and 4 drachms, or 1861.20 grammes; while the official *procès-verbal* of the autopsy, signed by A. Bérard, fixes it at 1882.96 grammes. The cerebellum weighed 191.40 grammes. The dimensions of the cranium were taken prior to the autopsy, and are as follow (the hair having been previously shaved off):—(1) The great horizontal circumference 65.45 centimetres; (2) the median inio-frontal curve, 36.69 centimetres; (3) the transverse supra-auricular curve, 40.60 centimetres. The examination of the brain revealed, besides a truly extraordinary abundance of the cortical substance, a great amplitude of the lateral ventricles, which contained a small quantity of slightly turbid fluid, their walls seeming of a mucous nature. This fact, joined to the enormous dimensions of the cephalic extremity and the thinness of the walls of the cranium, would lead to the supposition that Cuvier had been—as indeed it was stated that he had—the subject of hydrocephalus in his childhood.—*Revue de Thérap.*, Dec. 1.

**A CURIOUS PROPENSITY.**—The *feuilletonist* of the *Union Médicale* for December 8 states that a large manufacturer of gloves, who sends out great quantities to the different retail establishments, received lately from numbers of his customers loud complaints of the quality of the articles furnished. On a close examination, he found, amidst the merchandise ready to be despatched to the shops, hundreds of pairs of gloves which had undergone most singular mutilations. They seemed all-right outside, but on examining their lining it was found to be torn into shreds so that the gloves were absolutely lost for selling purposes. This extraordinary procedure, which could benefit no one, could not have been perpetrated within the establishment, and a rigorous search was made among the numerous workwomen who were employed at their own homes, and the culprit was at last found to be a young girl, whose work consisted simply in the embroidering, by means of a machine, the three lines corresponding to the back of the hand. For this purpose she had not even to expose the inside of the glove, as the punctures did not extend through all the thickness of the glove—so that the insides of the several dozen pairs of gloves which were consigned to her daily were never examined. However, pressed with questions, she confessed that she had done all the mischief, impelled by an irresistible impulse to tear the insides of the gloves, sometimes with scissors and sometimes with her teeth; and she had swallowed the fragments so detached, notwithstanding that these particular gloves were made of coarse sheepskin, impregnated with nauseous oils. The same manufacturer stated that he had

also received so many applications from ladies complaining of an incurable propensity their daughters had acquired of gnawing the ends of their gloves, that he had been induced to introduce nauseous substances during their manufacture, in order to arrest what, from its obstinacy in some young girls, had become a true neurosis.

## REVIEWS AND NOTICES OF BOOKS.

*The Electro-Magnet and its Employment in Ophthalmic Surgery; with Special Reference to the Detection and Removal of Fragments of Steel or Iron from the Interior of the Eye.* By SIMEON SNELL. London: J. and A. Churchill. 1883. Pp. 94.

As long ago as 1646 the employment of a magnet for the extraction of foreign bodies from the eye was advocated by Fabricius Hildanus, but it is only since the introduction of the electro-magnet for this purpose in 1877 that this mode of treatment has received much attention from ophthalmic surgeons.

The possible usefulness of the electro-magnet is distinctly limited. For the extraction of pieces of steel or iron situated in the eyelids or in the external coats of the globe its employment will seldom be found necessary. It is in cases where the foreign body lies *within* the eyeball (viz., in the aqueous or vitreous chambers, in the lens or retina) that this instrument is likely to be of more service than the methods of treatment hitherto in vogue—methods which must still be used in the large number of cases where the foreign body is of brass, copper, stone, glass, etc. When the fragment lies in the aqueous chamber, it is usual to make an incision through that part of the periphery of the cornea corresponding to the position of the foreign body. Should the latter not escape with the gush of aqueous, it will be necessary then to remove a piece of iris and the fragment lying on or attached to it. A coloboma is therefore frequently the result, and, unless this be situated above, the eye, although *safe*, will remain with vision impaired. The avoidance of this iridectomy would therefore be a great advantage. Mr. Snell gives an account of eighteen cases in which the bar or electro-magnet was used to extract foreign bodies from the anterior chamber. In eleven of these the foreign body was successfully removed without iridectomy. Here we think this method of treatment promises to be of decided service.

For foreign bodies embedded in the lens the magnet has been used ten or eleven times. In every case the cataractous lens was removed either at once or after a short interval. Its employment certainly gives us a security against the possibility of the foreign body being left behind on extraction of the lens—an accident that has occasionally taken place. The only recorded case of removal of a foreign body from the retina was remarkably successful. But as there are now several cases known of the existence of a fragment of iron in the retina or optic nerve, without any bad effects hitherto, it would hardly be advisable in ordinary cases to resort to this method of removal.

Our author is of opinion that it is where "fragments are situated in the vitreous chamber that the electro-magnet evinces particularly its superiority over the older methods." This we would certainly expect, as the usual fate of an eye in which such an accident has occurred is excision. Of the fifty-one cases in which the electro-magnet has been employed for the removal of foreign bodies from the vitreous, fifteen have proved failures—i.e., the magnet was not powerful enough to disentangle the piece of metal from the coats of the eyeball. In one of these the fragment was removed afterwards by forceps and scissors, in eleven enucleation was necessary, in one excision was not required, and in two the after-treatment is not stated. Of the remaining thirty-six cases, where the foreign body was successfully removed, the result was very good (about normal vision) in six cases; good ( $V = \text{about } \frac{1}{3}$ ) in six cases; bare perception of light or exact result not stated in ten cases. In the other fourteen cases the eye was left blind; in six of them there was subsequent shrinking, and in four suppuration, while excision is mentioned as having been found necessary in six cases. Of these fifty-one cases, then, the result may be called satisfactory in twelve, which is only moderately encouraging.

This volume of Mr. Snell's brings our knowledge of the



subject well up to date, and the author deserves credit for the care he has bestowed on collecting all the cases hitherto published.

*Practical Pathology: a Manual for Students and Practitioners.* By G. S. WOODHEAD, M.D., F.R.C.P.E. With 136 coloured plates. Edinburgh: Y. J. Pentland.

On a superficial or cursory examination, this work appears to be very striking. Its title, appealing to the student and practitioner, is sympathetic. It is called a practical treatise, is exceedingly well got up, and adorned with brilliantly coloured illustrations inserted in the text. Starting at the very beginning of pathological inquiry, it gives minute directions (chiefly Virchow's) for post-mortem examinations; it then discourses on reagents and staining fluids, of which latter picocarmine receives the premium. After this commences the descriptive portion, which in the various chapters is composed of methods for hardening, cutting, and staining the tissues in question, together with illustrations of sections for the most part coloured by picocarmine. Occasionally some morbid anatomy is thrown in, and the volume terminates with a chapter on micro-organisms.

A very slight scrutiny, however, reveals unevenness and inconsistency. For example, out of 399 pages no less than 106 (more than one-fourth of the descriptive part) are devoted to the liver and kidney; while, on the other hand, the eye is dismissed in a single paragraph of eleven lines, and of the skin, bladder, male and female reproductive organs no mention is made, although these organs are of considerable importance. Moreover, why should the alimentary canal, the bones and joints, and nervous system be deprived of the privilege of an account of their normal structure, when this same privilege is accorded to the liver, kidney, etc.? We have referred to the author's partiality for picocarmine, and several plates bear evidence to the effective results of this stain; yet the uncertainty of its vaunted power of selection is shown in such illustrations as Figs. 112 and 129, the former of which is a pallid and the latter a bright brick-red blaze. After describing three forms of scarlet-fever kidney, a fourth section is devoted to subacute interstitial nephritis, on the ground that "the student will be in a position to understand the more chronic forms of nephritis." Contrast this wealth of renal histology with the poverty of the nervous diseases, for the description of which we are apologetically referred to "the systematic text-books." We fancy we should prefer a systematic to a practical treatise. Perhaps these few instances will be sufficient to point out the kind of defect by which this book is handicapped; and in taking leave of it we congratulate the author on the excellence of his euphemistic paraphrase for compilation, and on the fulness of his gratitude to Profs. Sanders, Hamilton, and Grenfield for two courses of lectures on which "the work is based." Yet, notwithstanding the many deficiencies and discrepancies, we are disposed to think that, seeing these faults are those of haste rather than of incompetence, future editions may improve upon the present, for the work is based upon a logical plan, and has the additional merit of introducing certain new features.

*Note-Book for Post-mortem Examinations.* By BYRON BRAMWELL, M.D. Edinburgh: MacLachlan and Stewart. 1883.

THIS consists of a series of outlines to be filled in at the time of making the post-mortem; some of them provide only for partial post-mortems, others for inspection of the whole body. The absence of any provision for recording the state of the internal ear strikes us as an omission which would not be likely to be made in so exhaustive an examination as is in other respects arranged for. We assume that the line devoted to the external organs of generation is intended to include a description of the state of the testes as well as the penis. With these exceptions we readily grant that each outline is so full that any record taken by its aid should leave little to be desired in the way of completeness. The book almost necessitates the presence of a second person at the post-mortem examination, which will restrict its use in great measure to hospital practice; and, indeed, to fill in all the details that it asks for would require more leisure than most practitioners could spare to a post-mortem in private.

## REPORTS OF SOCIETIES.

### THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 5.

Dr. GERVIS, President, in the Chair.

#### THE EFFECT OF THE FORCES AND RESISTANCES OF LABOUR IN PRODUCING LATERAL FLEXION OF THE FŒTAL HEAD.

DR. GALABIN showed three diagrams to illustrate the view as to this subject, which he had formerly brought before the Society, viz., that whenever the head was so shaped, by prominence of the parietal tubera, that the biparietal diameter was greater than oblique diameters slightly inclined to it, so that a lateral obliquity secured a mechanical advantage by bringing into any diameter of the pelvis opposed to the head a smaller diameter than the biparietal, and when also there was any notable pressure upon the head at the ends of its transverse diameters, then the effect of this pressure upon the head was to promote lateral obliquity up to the point at which mechanical advantage was gained, and beyond that point to counteract it. Diagram 1 showed a head engaged in the pelvis, with a lateral obliquity of about seven degrees. Here it was shown that both pressures and propelling force tended to increase the obliquity. Diagram 2 showed a head engaged in the pelvic cavity, with a lateral obliquity of about fifteen degrees. Here it was shown that the pressures tended to diminish the displacement, but the propelling force to increase it. Diagram 3 showed a head arrested above the brim, with a lateral obliquity of about fifteen degrees. Here it was shown that both resistances and propelling force tended to increase the obliquity. The mechanism producing this lateral obliquity was analogous to that which produced chin-flexion.

#### THE MECHANISM OF LABOUR, MORE ESPECIALLY WITH REFERENCE TO NÆGELÉ'S OBLIQUITY AND THE INFLUENCE OF THE LUMBO-SACRAL CURVE.

This paper, by Dr. ROBERT BARNES, was then read. The author quoted Nægelé's description of the obliquity of the head as it presents at the pelvic brim. He next examined the theory of those who hold that the axes of the pelvic brim, uterus, and foetus coincide. He showed that while Nægelé held the same view as his opponents as to the inclination of the pelvis to the horizon, he did not deduce from it that the uterus and foetus presented with their axes coincident with that of the pelvic brim. The author examined this view, and, appealing to the frozen sections of Braune and Chiara, showed that the uterine axis forms a considerable angle with the axis of the pelvic brim. He demonstrated the difference between the heart-shaped brim of the pelvis and the circular cavity of greater capacity than the brim, and therefore that the head passing the brim must, under the law of accommodation, and of movement in the direction of least resistance, rotate under the promontory. He then described the lumbo-sacral curve, the influence of which upon labour had received inadequate attention. This curve was represented by a line drawn from the promontory as a centre, with a radius intersecting the middle of the plane of the brim. This he proposed to call *Barnes's curve*. It is the counterpart for the brim of Carus's curve for the outlet. The resultant of the two forms a sigmoid curve beginning at the fundus of the uterus and ending at the outlet of the pelvis. He called it the *parturient curve*. He showed that the driving force acts in a line forming an angle behind the axis of the brim, and that therefore, under the combined action of the convex lumbo-sacral curve, and of the relation of the uterine and foetal axes by an angle behind the brim axis, the head cannot enter synclitically—that is, with its base or transverse section parallel with the brim plane. He showed that, from the curve of the parturient canal, the irregular shape of the head, and the non-coincidence of the three axes, all the conditions of true synclitism are wanting. He then referred to the part borne by the *planes of the uterus*. The first, resting on the lumbo-sacral curve, helps to guide the head to the brim in obliquity; the second guides the head backwards into the sacral cavity and under the promontory, completing the lower course of Barnes's curve; the third, or perineal plane, throws the head forwards to the outlet in Carus's curve.



He next demonstrated, from Galabin's and his own measurements, that there is a distinct gain in presenting the oblique diameter instead of the biparietal to the brim, the point especially insisted upon by Naegelé. He illustrated the theory of normal obliquity by comparison with that of labour with brim-contraction, showing that the importance of the lumbo-sacral curve increases with the degree of contraction, but that the same law prevails throughout all labours. He concluded by submitting that the objections urged against Naegelé's obliquity are vitiated by erroneous assumptions; that there is an adequate reason for this obliquity, and an adequate mechanism to produce it; and that it is a real and necessary result of the combined action of the factors working in the mechanism of labour. The memoir was illustrated by several diagrams.

The PRESIDENT thanked Dr. Barnes for his erudite and interesting paper. He (the President) had, in his earlier years, influenced much by Dr. Tyler Smith, accepted Naegelé's view as to the brim obliquity. Subsequently, the writings of Duncan and others had led him to doubt it. After studying Dr. Galabin's paper on the subject, he had come to the conclusion that while, in the case of a well-formed pelvis and head of average size, the head entered the brim perpendicularly to the brim plane, yet that when the brim was even slightly contracted, new conditions prevailed, and there was a gain in the obliquity of Naegelé. He expressed the gratification of the Fellows present in seeing Dr. Wiltshire again among them.

Dr. MATTHEWS DUNCAN said that the mechanism of natural and unnatural labour had very little in common with a view to Naegelé's obliquity. The "curve of the false promontory," or "Barnes's curve," had no importance in natural parturition. In the flat pelvis the head followed this curve. The question could not be settled with mathematical exactness. It was one for simple observation, not for ingenious argument. As a matter of fact, he did not find the right parietal bone enter the pelvis first; nor did he find the caput succedaneum of early labour form upon that bone, but upon the vertex. It was only in late labour that it was formed on the right parietal bone. He held that the axes of the pelvis, uterus, and foetus were practically coincident. The frozen sections appealed to by Dr. Barnes were not faithful representations of the state during life. The uterus during the contractions of labour erected itself, bringing its axis into coincidence with that of the brim. It was not pushed back towards the spine, but became more prominent. In the "bearing-down" action accompanying labour the recti muscles were not the only ones which acted: the diaphragm and its crura acted as well, forming a dome, which supported and assisted the uterus.

Dr. GALABIN had frequently observed Naegelé's obliquity, not in easy labours, but in cases in which there was no deformity, but the head met with considerable resistance. He ascribed it chiefly to the lateral pressures on the head in the pelvis, as shown in the diagrams he had exhibited. A head with a large biparietal diameter thrown directly across the canal was in a position of unstable equilibrium, like a head in a position of brow-presentation. He could not understand how Dr. Barnes considered that the posterior obliquity of the uterus helped to produce Naegelé's obliquity. Such uterine obliquity would, until the resistance came into play, tend to produce the opposite of Naegelé's obliquity. But he did not think that posterior obliquity of the uterus was nearly so great as might appear from frozen sections. He could not accept Dr. Barnes's account of the action of the anterior uterine valve, for he did not think that displacement of the os uteri backwards was a regular occurrence. The effect of uterine obliquity in producing obliquity of the head was only in operation while the force was transmitted through the condyles. While the liquor amnii was retained, the force acted in the axis of the pelvis, and had no tendency to produce obliquity.

Dr. CHAMPNEYS agreed with Dr. Galabin, that the first effect of posterior obliquity of the uterus would be to produce the opposite of Naegelé's obliquity. He pointed out that the condition known as "pendulous belly" was generally recognised as a cause of exaggerated Naegelé's obliquity. How could these two opposite conditions (anterior and posterior deflection of the uterus) produce the same effect, viz., Naegelé's obliquity?

Dr. ROPER remarked that although a slight advantage was gained by the Naegelé obliquity, yet its practical im-

portance, even in contracted pelvis, was very small. The other obliquities—e.g., flexion and extension—were of infinitely greater importance.

Dr. BARNES held that the curve of the promontory was important both in natural and unnatural labour, the difference being simply one of degree. It was necessary, for synclitism, that the axes of the uterus, foetus, and pelvic brim should be absolutely, not merely practically, coincident, for the slightest deviation would be enough to cause obliquity of the head. He thought that the frozen sections were essentially true representations of nature. There was no evidence that the crura of the diaphragm contracted in such a way as, or that the diaphragm had the power, to drive the uterus forward against the abdominal muscles. If during turning the direction of the force were observed, it would be found to lie behind the axis of the pelvic brim. He had observed cases of labour very carefully, and had observed the presence of the Naegelé obliquity from the beginning of labour.

## ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.—FRIDAY, NOVEMBER 30.

A. H. CORLEY, F.R.C.S.I., President of Section, in the Chair.

### PSEUDOGLIOMA.

MR. JOHN B. STORY exhibited an eyeball removed from a boy, aged eight months, for purplastic inflammation in the interior of the globe. Numerous microscopic preparations were shown, demonstrating the pathological distinctions between this disease and glioma retinae, of which three undoubted specimens were exhibited for purposes of comparison. Mr. Story agreed with most authorities in holding that in some cases the diagnosis was so difficult that it had to remain, for a time at least, uncertain.

Mr. SWANZY said that, as he understood the case, it seemed to be one of the spontaneous formation of pus in the interior of the eyeball—a purulent infiltration of the interior of the eyeball, starting probably from the choroid. That being so, the specimen was rather a rare one; for, according to general experience, such an occurrence was connected in some way with septic disease the direct result of a wound or injury to the eyeball, or with septic blood-disease. They knew that this purulent choroiditis might occur in cases of metria, or of septicæmia after surgical operations, and from other causes. It also occurred in cerebro-spinal meningitis. He was not aware of any instance in which it had occurred spontaneously; it was hard to understand how it should. He had never seen a case of purulent choroiditis in connexion with vaccination after inflammation, but he had seen affected eyes that seemed to be the result of purulent infiltration of the choroid, and in cases in which he learned that there had been inflammation of the arm after vaccination. It was easy to understand septic matter being carried from the arm to the vascular coat of the eyeball.

Dr. ARTHUR BENSON said there had been great difficulty in making an exact diagnosis. Before the eyeball was extracted there was so much inflammation that he was of opinion it was not true glioma. On enucleating the eyeball it was found that the inflammation had extended to the orbit, and that there was further disease all round, so that it seemed as if the case was one for more or less dissection; but it turned out that there was only a thickening of the tissues and no protrusion of anything through the sclerotic.

Mr. STORY, in reply, said that the occurrence of spontaneous suppurative hyalitis or choroiditis was very rare, but he did not see why it should be impossible for pus to originate in the eye any more than elsewhere. Spontaneous suppuration had occurred in other places in the same child, and there were spots on the skin. The occurrence of spontaneous suppurative hyalitis was not, however, a thing unknown: for, in a paper published in the last number of the *Transactions of the Ophthalmological Society*, Mr. Nettleship recorded several cases of pseudoglioma; and Dr. Brailey, in *Guy's Hospital Reports*, recorded the occurrence of spontaneous suppurative hyalitis and spontaneous diffused morbid changes of the eyeball. One of the reasons for enucleation in the case in question was the fear lest the second eye should become implicated.



### PERVIOUS URACHUS WITH REMARKABLE DISEASE OF BLADDER.

Dr. C. B. BALL exhibited specimens taken from a patient aged ten years. Twenty months previously to his death the patient was admitted into Sir Patrick Dun's Hospital, suffering from incontinence of urine. He had frequent attacks of hæmaturia. The water was alkaline, and contained considerable quantities of pus. Sounding gave negative results. These symptoms subsided under the treatment, and he was discharged, but was readmitted January 13, 1883, with urine flowing from the umbilicus—none coming by the urethra. His mother stated that three weeks before his readmission a small gathering had formed at the umbilicus, which broke, and since then all the urine had come by the abnormal opening. Attempts to pass any instrument by the urethra into the bladder having failed, a laminaria tent was placed in the umbilical opening. This was followed by dribbling of urine from the urethra in three hours—the first that had passed naturally for seven weeks. A catheter could now be passed without difficulty, but not retained in the bladder. Cauterisation of the umbilical cicatrix, with a subcutaneous ligature passed round the umbilicus when granulation was established, closed the opening for ten days, but fresh suppuration supervening, the fistula re-opened. A further and more extended cauterisation was again followed by closure. The bladder now to a certain extent regained the power of holding water, it being noticed on one occasion that he retained his urine for two hours. Three weeks subsequently, without apparent stoppage of the urethra, the umbilical orifice again opened, urine now flowing by both channels. A plastic operation was performed, and a gradual closure of the abdominal opening took place. He improved for a time, but ultimately died from peritonitis. A post-mortem examination was held. Upon opening the abdomen a small quantity of fluid was found in the peritoneal cavity, with abundance of recent lymph. The omentum was adherent to the front abdominal wall, apparently as the result of old-standing peritonitis. The bladder was much contracted and the walls increased in thickness. Springing from the fundus was an elongated tongue-shaped cavity, reaching up to a level with the umbilicus, measuring two inches and a half by one inch and a half. Upon opening the bladder a number of new growths were found, resembling in appearance the columnæ carneæ of the heart. Some were attached by one extremity only; others by both ends, a space being left between the side and the wall of the bladder; they also frequently intersected. The microscopic examination of these growths showed them to be composed of fibrous tissue covered with mucous membrane. There was no evidence of true papillary structure. The obstruction to the urethra was caused by a septum attached posteriorly, immediately below the openings of the ureters, and stretching to the front wall. This was divided in opening the bladder. Springing from the fundus, the cavity before mentioned communicated with the bladder by a large opening, and its walls contrasted markedly with the bladder-walls, being exceedingly thin and smooth on the surface. In the front of this, two openings communicated with the peritoneal cavity, by means of which the fatal extravasation took place. A microscopic examination of the wall of this cavity showed it to be lined with mucous membrane, thus demonstrating the fact that this was a case of dilated urachus. The ureters and kidneys presented appearances of long-standing bladder-destruction.

The PRESIDENT said he saw the case while the patient was in hospital, and, seeing now the result of the post-mortem, he did not quite agree in the opinion that the urachus was completely obliterated. Obstructions in either the bladder or the urethra had such a degree of force that they would enlarge an unobliterated urachus.

Dr. BENSON said Dr. Ball's case reminded him of one of a man in the City of Dublin Hospital, who came there for a chest affection. Whilst at hospital he directed attention to a small lump about an inch below the umbilicus. It got larger, grew soft, and was opened. The man died of chest disease and kidney disease combined; and they traced an abscess backwards into the cavity of the abdomen, and found that it originated in the apex of the wall of the bladder. The abscess had evidently commenced in a posterior part of the wall of the bladder. He was doubtful at the time whether it could be ascribed to the urachus or not. He

searched for the urachus at the time, but found no trace of it.

Dr. BENNETT observed that this case had a greater surgical than pathological interest; but the Section was of course limited to the latter view. The difficulty of diagnosis in such cases was extreme. He had seen the case with his colleague from the beginning, and he could not arrive at anything like a satisfactory diagnosis of it. The extreme freedom with which a probe passed in the first instance suggested the possibility of a pervious urachus. The great practical point was, that notwithstanding in other respects the boy was in comparatively good health, yet, whether surgical interference was resorted to or not, his life hung on a thread. Although trifling external conditions were presented, the case might have become disastrous at any moment by rupture.

Mr. STORY thought Dr. Ball had laid too much stress on the supposed existence of a membranous diaphragm in the bladder. He said that in the early part of the case he could pass a probe through the umbilicus and a catheter through the urethra. If a membranous diaphragm had been there he could not have done so. Possibly the membranous diaphragm was only of partial extent.

Dr. BALL, in reply, said that where an obliteration represented the urachus there was some trace of a mucous membrane to be found in the middle of it. He did not mean to convey that that was pervious. The first time the boy was brought to the hospital great difficulty was found in passing the sound, his first attempt to do so being a failure; but Dr. Bennett succeeded in passing a sound by depressing the handle. Afterwards he passed a catheter through the urethra, and a probe through the urachus, and made them touch.

The rest of the meeting was occupied by a discussion on a specimen of Cystic Sarcoma of the Breast which was exhibited by Dr. BENNETT, and a case of Tumour of the Dura Mater brought forward by Dr. WALTER BEATTY.

### MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the Winter Commencements, held at the close of Michaelmas Term, on Wednesday, December 19, 1883, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred by the University Caput, viz.:—

*Baccalauri in Chirurgia*.—Alexander Ambrose (*stip. cond.*), Henricus Edmundus Blandford, Carolus Calthorpe de Burgh Daly, Gulielmus Nedham Denning, Georgius Magill Dobson, Gulielmus Gualterus Fenton, Robertus Howard Fleming, Arturus Fredericus Gulielmus Geoghegan, Jacobus Sullivan Green, Henricus M'Quade, Ricardus Miller, Ricardus Nunn, Glascott Hardy Symes, Robertus Edvardus Sproule.

*Baccalauri in Medicina*.—Alexander Ambrose, Carolus Calthorpe de Burgh Daly, Gulielmus Nedham Denning, Harloe Henricus Fleming, Arturus Fredericus Gulielmus Geoghegan, Jacobus Sullivan Green, Carolus Randolph Kilkelly, Ricardus Miller, Ricardus Nunn, Glascott Hardy Symes.

*Doctores in Medicina*.—Alexander Ambrose, Thomas Donnelly, Georgius Chadwick Kingsbury (*stip. cond.*), Thomas White Lewis, Andreas Murray, David Chadwick Smith, David Tucker.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on December 10 and following days, the undernamed gentlemen, having passed their several examinations for the Letters Testimonial, and taken the declaration and signed the roll, were admitted Licentiates of the College, viz.:—

Edward S. Aherne, Henry Osborne Beattie, Henry Bullen Beattie, James J. Bolger, William Boode, Henry J. Butler, John F. B. Campbell, Godfrey O. Cuppage, Edward B. Denny, George A. Dreaper, Thomas G. Drake, George B. A. Flanagan, Charles H. P. D. Graves, James W. Greene, John H. Griffin, Robert F. Herron, John Keys, John P. M'Crraith, Edward J. Ryan MacMahon, Matthew Macnamara, Francis J. Maguire, Francis B. Manning, Francis J. Maunsell, Thomas G. Miderick, Andrew Murphy, Wilson M. Nugent, Thomas O'Donnell, Edward G. Peters, Thomas J. G. Sheehan, Charles N. Simons, Henry W. Smartt, Frederick J. W. Stoney, Whitley Stokes, Francis W. Sullivan, William G. Ternan, Thomas H. Torney, John J. Walsh, Henry Whitby, and Geo. R. Williams.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 20:—

Bean, Charles Edward, Brooklyn House, Shepherd's Bush, W.  
Bower, Edward Ignatius, Acton-street, Gray's-inn-road, W.C.



Carvell, John Maclean, East India-road, E.  
 Ferguson, Geo. Henry Fletcher, Clyde-road, Croydon.  
 Foot, Ernest George, Bigbury, near Kingsbridge, Devon.  
 Hartzorne, Bernard Frederic, Chichester-road, Bayswater, W.  
 Harvey, Frank, Endsleigh-place, Plymouth.  
 Ogg, George, St. Anthony's, Newcastle-on-Tyne.  
 Pring, Frederick Arthur, Northlands, Exeter.  
 Roe, Montagu Walter, Newland-street, W.  
 Sumpter, Walter John Erneley, Cley-next-the-Sea, Norfolk.  
 Thirkell, Joseph, Aberford, Leeds.

The following gentleman also on the same day passed the  
 Primary Professional Examination:—

Muspratt, Ernest Lambert Chambers, King's College.

### APPOINTMENTS.

- BATEMAN, ALFRED GEORGE, M.B., M.Ch., L.S.A.—Honorary Medical Officer to the Holloway and North Islington Dispensary, *vice* J. Grey Glover, M.D., resigned.
- BROWN, JOHN, L.R.C.P., L.S.A.—Re-appointed Medical Officer of Health to the Bacup Sanitary District.
- CANTON, FREDERICK, M.R.C.S., L.R.C.P., etc.—Dental Surgeon to the Dental Hospital of London, Leicester-square, *vice* A. Hill, resigned.
- CHAFFEY, W. C., M.B.—Medical Registrar to the Children's Hospital, Great Ormond-street, *vice* Angel Money, M.D., resigned.
- COLLINS, G. D., M.R.C.S., L.S.A.—Medical Officer to the Broseley District of the Madeley Union.
- DOWNIE, J. WALKER, M.B.—Surgeon to the Throat Department, Anderson's College Dispensary, Glasgow.
- LINE, W. H., B.A., M.D., etc.—Resident Medical Superintendent to the Borough Hospital for Infectious Diseases, Birmingham.
- MCINTYRE, J., M.B.—Surgeon to the Throat Department, Anderson's College Dispensary, Glasgow.
- MAYO, F. H., L.R.C.P., M.R.C.S.—Senior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester, *vice* W. C. Chaffey, M.B., resigned.
- OAKES, ARTHUR, M.D., L.R.C.P.—Honorary Physician to the Kilburn, Maida Vale, and St. John's Wood General Dispensary.
- WARNER, E. H., M.B. and C.M. Edin.—Honorary Assistant-Surgeon to the Eye Infirmary, Newcastle-on-Tyne.
- YOUNG, JOHN, M.B. and C.M. Glasg.—House-Surgeon to the Scarborough Hospital and Dispensary.

### DEATH.

WHEELER, THOMAS RIVINGTON, F.R.C.S., at 5, Albion-terrace, St. Lawrence-on-Sea, on December 19, aged 65.

### VACANCIES.

- BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), with furnished rooms, fire, light, and attendance. Candidates must be registered and possess both a medical and a surgical qualification. Applications, with original testimonials and certificate of registration, to be forwarded to the Secretary, on or before January 15.
- BELGRAVE HOSPITAL FOR CHILDREN, 79, GLOUCESTER-STREET, PIMLICO, S.W.—Assistant-Surgeon. (For particulars see Advertisement.)
- PLYMOUTH PUBLIC DISPENSARY.—Physician's Assistant. (For particulars see Advertisement.)

### UNION AND PAROCHIAL MEDICAL SERVICE.

#### APPOINTMENT.

Downham Union.—Donald Reid, M.B., C.M. Aber., to the Wiggshall District.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

#### TESTIMONIAL TO DR. ROGERS.

The following is the ninth list of subscriptions:—Dr. Eyton Jones, Wrexham, £1 1s.; Dr. A. Leachman, Petersfield, £1 1s.; Dr. Grime, Blackburn, £1; W. Powell, Esq., Cheltenham, 10s.; A. J. Moore, Esq., Reading, 10s.; E. R. Denton, Esq., Leicester, 5s.; M. R. Behrendt, Burrington, 5s.; Dr. B. Laverick, Staithes, 5s.; Ignotus, 5s.

A. E.—Full directions for preparing the so-called artificial human milk are to be found in Playfair's "Midwifery."

Dr. Taylor.—A brief *resumé* of the Government Medical Bill appears in one of the leading articles in the present issue.

#### BOOKS, ETC., RECEIVED—

The Contagious Diseases Acts, by C. B. Taylor, M.D., etc.—New Operation for Rupture of the Perineum, by J. Collins Warren, M.D.—Transactions of the American Dermatological Association—Medical and other Uses of Carbolic Acid—Coffee and Tea, by G. V. Poore, M.D., etc.—Introductory Address to the Course of Clinical Lectures at the Hospital for Women, by Protheroe Smith, M.D.—The Extra Pharmacopœia, by W. Martindale, F.C.S.

#### COMMUNICATIONS have been received from—

Dr. J. MATTHEWS DUNCAN, F.R.S., London; Dr. MAHOMED, London; THE DEAN OF KING'S COLLEGE, London; Dr. F. WARNER, London; Mr. WYNTER BLYTH, London; Dr. NORMAN CHEYERS, London; Mr. MARK H. JUDGE, London; THE EDITOR OF THE "SANITARY ENGINEER," London; Dr. J. RUSSELL, Birmingham; THE HON. SECRETARY OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH, London; THE SECRETARY OF THE ROYAL INSTITUTION OF GREAT BRITAIN, London; Dr. R. W. BURNET, London; Mr. W. WHITEHEAD, Manchester; THE SECRETARY OF THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION, London; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE SECRETARY OF THE HOSPITALS' ASSOCIATION, London; Messrs. SAXON SNELL AND CO., London; Mr. E. CRESSWELL BABER, Brighton; Messrs. C. MITCHELL AND CO., London; Messrs. DOMELER AND CO., London; Dr. ALEXANDER, Liverpool; THE EDITOR OF THE "BRITISH MEDICAL JOURNAL," London; Dr. SHELLEY, Hertford; Mr. J. T. W. BACOT, Seaton; Dr. PROTHEROE SMITH, London; THE SECRETARY OF THE SOUTH LONDON SCHOOL OF PHARMACY, London; THE HON. SECRETARY OF THE ROYAL INSTITUTION, London; Dr. J. W. MOORE, Dublin; Dr. THOMSON, Glasgow; Mr. J. WICKHAM BARNES, London; THE SECRETARY OF THE APOTHECARIES' HALL, London.

#### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medizin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Philadelphia Medical Times—Maryland Medical Journal—Journal of Cutaneous and Venereal Diseases—North Carolina Medical Journal—The Bristol Medico-Chirurgical Journal—Night and Day—Revue d'Hygiène—The Detroit Lancet—Correspondenz-Blatt—Boy's Own Paper—Friendly Greetings—Leisure Hour—Sunday at Home—Girl's Own Paper—Revue Sanitaire—Journal of the British Dental Association—El Ensayo Medico.

### APPOINTMENTS FOR THE WEEK.

#### December 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

#### 31. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

#### January 1, 1884. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

#### 2. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

#### 3. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

#### 4. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Sir J. Lister), 2 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Annual General Meeting for Election of Officers, Report of the Council, etc. The following preparations will be shown:—Dr. Norman Moore—Three Examples of Pancreatic Disease. Dr. Savage and Dr. Hale White—Further Specimens of Vacuolation of the Liver. Dr. Henegage Gibbes—Entozoon in the Lungs of an Animal. Mr. Bowly—Epithelioma of the Ear. Mr. Jessett—Medullary Sarcoma of the Skull of a Child.

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THE MEDICAL TIMES is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.



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